Trends Report 2025

•Future in Focus•

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From Divide to Inclusion: Digital Access, Accessibility, and Skills Development for People with Disabilities

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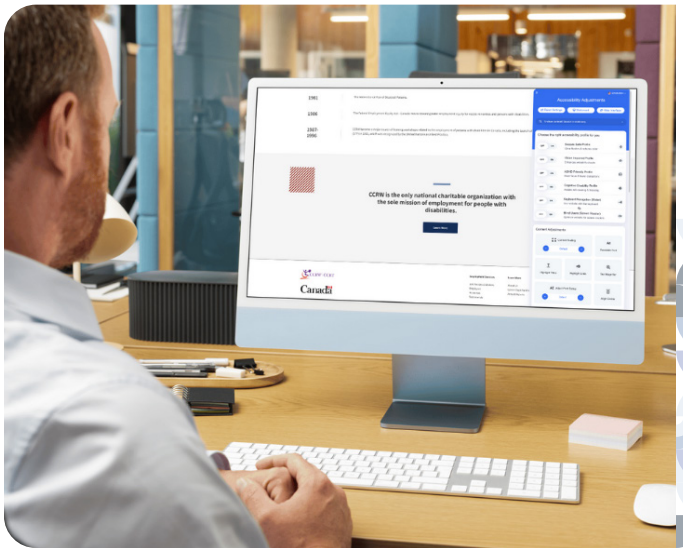
Every day, many persons with disabilities navigate a world that was not designed with their needs in mind. For some, the digital environment – the devices, software, and online platforms where people work, learn, play, and interact – can be just as inaccessible as the physical world.

As workplaces grow increasingly digitized, digital access, accessibility, and skills become gatekeepers to employment. Unfortunately, people with disabilities and other marginalized groups face a 'digital divide': the gap between those who have the means and the skills to access the digital world and those who do not.[1]

Digital inclusion, which refers to ensuring that all individuals and communities can access the Internet, use technological devices such as computers and smartphones, benefit from applications and online content that are accessible and inclusive, and receive digital skills training,[2] is often framed as the key to employment. However, systemic barriers such as the cost of Internet access, inaccessible platforms, and limited digital skill development opportunities keep inclusion out of reach.



For workers with disabilities to compete equally in the labour market, they must be given equitable opportunities to develop the digital skills that are increasingly valued by employers across industries. This begins with ensuring people with disabilities have full access to the digital environment.

Digital access encompasses infrastructure, affordability, inclusive design, and digital literacy.[3,4] Full participation of persons with disabilities in the workforce requires a holistic approach integrating each of these areas.

In this report, we discuss digital access, accessibility, and the state of the digital divide in the Canadian labour market. We then describe what digital skills are, their importance to employment outcomes, and the challenges and opportunities ahead for disability-inclusive digital skills development. We highlight employment services and policies that can help level the playing field. We emphasize what community organizations, employment service providers, and skills training instructors can do to support digital inclusion.

Finally, we issue a call to action for employment service providers, advocates, and community leaders to become agents of change by advocating for the importance of digital inclusion and modelling accessible, inclusive training practices. Increasing access to digital infrastructure, accessible and inclusive online content, and skills development will pave the way for greater employment opportunities and sustained workforce inclusion for persons with disabilities.

Digital Transformation
and the Labour Market

Canada's labour market is undergoing rapid evolution, driven by shifts toward automation, digital transformation, and increasingly knowledge-based roles.[5] These changes are redefining how we work, regardless of whether employees are working from home or on location.

While digital transformation in all its forms offers new opportunities, it also risks deepening existing barriers, particularly for persons with disabilities who face persistent challenges in accessing digital infrastructure and skills development.

Both workers and employers are increasingly adopting generative Artificial Intelligence (AI) tools (e.g., ChatGPT or Copilot), or AI which creates content such as text, audio, code, videos, and images, based on user inputs or short instructional texts, called 'prompts'.[6] According to KPMG, which surveyed 2,183 Canadian workers, the percentage of Canadians who use generative AI has jumped significantly from 22% in 2023 to 46% in 2024.[7] Workers are mainly using generative AI for idea generation, research, and professional email writing[7].

The rise of AI tools in Canadian workplaces is also rapidly reshaping job roles, creating demand for new, specialized skills while making other jobs obsolete. By mid-2025, over 12% of Canadian businesses had incorporated AI technologies into their operations, and over 14% planned to in the future.[8] While AI and technology-related roles, such as big data specialists, fintech engineers, and machine learning experts, are rapidly rising, traditional administrative and clerical roles, like bank tellers, data entry clerks, and executive assistants are experiencing notable declines.[9] AI and automation are also changing the skills employers are looking for. Multinational consulting firm Accenture, for example, announced plans to reskill hundreds of thousands of workers on AI fundamentals, while "exiting" workers for whom reskilling was not a "viable path".[10]

Digital skills are now essential across nearly every industry, underpinning everyday tasks from applying for jobs and accessing public services, to managing health care and performing routine tasks. For everyday tasks across sectors, employers continue to prioritize foundational digital competencies such as email (e.g., Outlook), video conferencing (e.g., Zoom, Teams), and productivity software (e.g., Asana, Slack), alongside soft skills like communication and problem-solving.[11]

This evolving landscape underscores the urgent need for accessible infrastructure and inclusive, targeted digital training. Service providers, policymakers, and community leaders must work together to remove barriers and ensure that all Canadians, especially persons with disabilities and other equity-denied groups, can fully participate in the digital economy.

Remote Work: A Crucial Accommodation

The shift to remote and hybrid work during the COVID-19 pandemic opened new pathways to employment for many individuals with sensory, mobility, or transit-related barriers in traditional work environments. Remote and hybrid work created unprecedented opportunities for persons with disabilities by reducing commuting barriers, allowing flexible scheduling, and enabling customized home workstations. Many employees with disabilities reported feeling more productive and better able to manage pain, fatigue, or sensory sensitivities when working from home.[12]

According to a report by Globe Content Studio,[13] KPMG found that 83% of Canadian employers anticipate a full return to the office between 2024 and 2027. As employers return to in-person models, there is a risk that these gains will be lost.[14] Some organizations are eliminating remote options without adequate consultation or accommodations planning, forcing employees with disabilities to return to environments that may not meet their accessibility needs. This shift can result in increased absenteeism, job loss, or withdrawal from the workforce altogether. Without formal recognition of remote work as a legitimate accommodation, accessibility progress may be reversed.[14]

Policymakers should consider strengthening employment standards to protect remote work as an accessibility right, while equipping employers with the tools and guidance needed to implement inclusive practices effectively. For service providers and policymakers, remote and hybrid work is critical: preserving flexible work options and embedding remote work as an accommodation right under the *Accessible Canada Act* can help maintain and expand employment opportunities for persons with disabilities.

Digital **Access**

Digital access is foundational to employment inclusion because most job-related processes, from applications to onboarding and training, depend on reliable Internet, appropriate devices, and digital skills.

In Canada, digital access means all individuals and communities can reliably connect to the Internet and use digital technologies to participate fully in society.[15]

Canada's Digital Charter emphasizes **universal access**: the principle that all Canadians should have equal opportunity to participate in the digital world, with access to connectivity, literacy, and skills.[16] The Canadian Radio-television and Telecommunications Commission (CRTC) has also declared broadband Internet a basic right[17]. **Canada's Connectivity Strategy** commits to providing 95% of Canadians with high-speed Internet by 2026 and 100% by 2030.[18]

Not all persons with disabilities have access to reliable Internet and/or digital technology, due to a combination of factors, including an inequitable distribution of resources and access to infrastructure (e.g., reliable Internet access, personal computers, smartphones, etc.). These issues compound other inequities in a workforce increasingly shaped by digital technologies.[19] Ensuring equitable digital access is therefore critical to advancing employment equity and enabling full participation in Canada's labor market.

Socioeconomic Inequities

Socioeconomic inequities exist which impact persons with disabilities' ability to access Internet-enabled technology and find, obtain, and maintain employment. Barriers to Internet use are more common among those in lower income groups. According to the 2022 *Canadian Survey on Disability* (CSD), individuals with disabilities have a lower median income ($38,810) compared to those without disabilities ($46,080), limiting their ability to afford digital devices or high-speed Internet.[20] While 14% of people with disabilities in higher income brackets reported such barriers, the rate rises to 20% among those in lower income households.[21]

These challenges are not experienced equally among persons with disabilities. Race, income, gender identity, immigration status, and other demographic factors can compound digital exclusion. For example, the CSD shows that immigrants with disabilities (19%) and people living in low-income

households (20%) are more likely to face digital barriers, as are 2SLGBTQIAA+ respondents.[22] Many individuals from low-income households rely on shared or borrowed devices or public Wi-Fi, making it difficult to search for jobs, participate in virtual interviews, or access online training, especially in rural and remote communities where high-speed Internet is often unavailable or unaffordable.[19] In Canada, 17% of persons with disabilities aged 15 and older report barriers to Internet use, rising to 28% among those with very severe disabilities.[21] These disparities are especially concerning given that Internet access is increasingly recognized as a basic human right and a vital social determinant of health.[19]

Evidence shows higher-income job seekers benefit from personal networks or offline recruitment methods, while those with lower incomes are often more dependent on digital tools, even while they face the greatest obstacles to using them. Job search and application processes now take place primarily online, and digital platforms host job postings, networking opportunities, and career development resources.[23,24]

Addressing the resource divide through measures like subsidizing digital devices and expanding affordable high-speed Internet is essential to ensuring equitable participation in the future of work.

Digital **Accessibility**

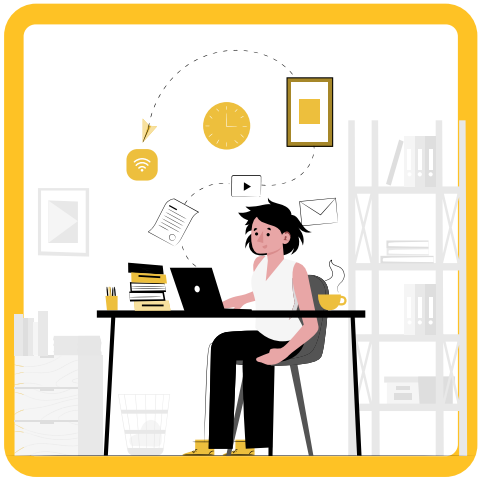
Affordable Internet and devices alone do not guarantee digital inclusion; digital accessibility is also necessary. **Digital accessibility** refers to whether digital environments like websites, applications, and online services are designed to be usable by all, including persons with disabilities.[25] Even when Internet access is available, digital platforms often lack accessibility features such as screen reader compatibility, closed captioning, and customizable text.

Recent Canadian data underscores the scale of the problem. In 2024, approximately 23% of Canadians aged 15 and older with one or more disabilities – 1.4 million out of around 6 million – encountered at least one barrier when using the Internet.[26] Common challenges include high costs for adaptive features, inconsistent functionality of accessibility tools, and lack of access to specialized hardware or software.[26] Barriers within the digital environment include websites incompatible with assistive technologies, media lacking captions or alternative text, and digital services designed without accessibility in mind.

These design flaws further exclude individuals from critical employment-related activities, including searching for job postings, submitting applications, communicating with potential employers, developing professional networks, and accessing career development resources.[27]

In some cases, digital technologies can also actively exclude people with disabilities by perpetuating human stigmas. Algorithms used by AI tools (e.g., job application screening software) are rarely trained on diverse datasets that include people with disabilities and often learn biases from their training data.[28] Since AI tools are trained based on input from human users, ableism can (and has) negatively impacted resume screening processes, sometimes excluding applicants whose volunteer or employment history includes disability organizations or advocacy.[29]

Illustrative Case: Alex's Job Search Journey and Inaccessible Technology



Alex, a jobseeker with a visual disability, lives in a mid-sized Canadian city and is actively seeking employment in administration.

Alex tries to apply for an office administrator role through a popular job portal. However, the site's form fields lack proper labels and keyboard accessibility. Due to poor HTML coding, Alex's screen reader cannot interpret or interact with the application form. Despite being fully qualified, Alex is unable to submit their application. Approximately 35% of Canadians with disabilities reported technology barriers while filling out digital applications in 2025.[30]

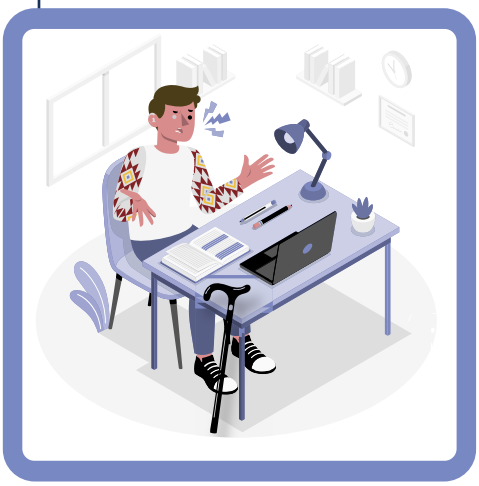
On a more accessible platform, Alex applies for another position and includes volunteer experience in disability advocacy. Unfortunately, the AI-powered resume screener flags this as a negative indicator, associating disability-related content with reduced qualifications; a barrier which occurs with AI tools.[28] Alex's application is filtered out before reaching a human reviewer.

After repeated rejections, Alex is left without feedback or clarity. These barriers prevent them from showcasing their skills, accessing interviews, or participating in upskilling opportunities. Over time, these discouraging experiences diminish confidence and perpetuate employment instability.[19]

Alex's experience highlights the need to address digital inaccessibility through accessible design standards for job platforms, bias audits and inclusive datasets for AI tools, investment in infrastructure such as subsidized devices and affordable high-speed Internet, and digital skills training programs tailored towards persons with disabilities. Without these interventions, the digital divide will continue to undermine equitable participation in the workforce and long-term skill development.

Investing in accessible online content and advocating for the ethical deployment of AI technology is essential to reducing employment barriers. Beyond immediate access barriers, digital inaccessibility also undermines long-term skill development, leaving workers with disabilities less equipped to compete in a labour market increasingly shaped by digital tools and remote work. Digital inaccessibility can be remedied through addressing infrastructure gaps and enforcing accessible design standards.

Illustrative Case: Elijah and the Intersections of Digital Exclusion



Elijah, a 28-year-old First Nations man with mobility, hearing, and vision disabilities, lives on a reservation in northern Manitoba. Motivated to find remote administrative work, he searched internet job boards, created a digital resume, and tried to submit applications online. However, he quickly encountered a series of barriers that made his job search nearly impossible.

Unreliable rural Internet made it difficult to consistently access job platforms and employer websites. Many online application systems required mouse navigation or included timed assessments, which were incompatible with Elijah's assistive technologies and posed challenges for data input. Some job portals lacked screen reader compatibility or did not offer captioning, making them inaccessible to users with vision or hearing disabilities. Even basic tasks, like uploading a resume or completing an online form, became frustrating, and at times, impossible. Despite his digital readiness and determination, these barriers ultimately forced Elijah to abandon his job search.

Elijah's story illustrates the compounding challenges that many persons with disabilities face, not only in terms of physical access, but in digital infrastructure, usability, and inaccessible design practices. His experience underscores how intersectional factors like Indigeneity, disability, and rural location can compound digital exclusion and systematically limit access to employment opportunities.

The Digital **Disability Divide**

For many Canadians with disabilities, the promise of a digital economy remains out of reach. When basic elements like reliable internet are missing, or when websites and applications fail to meet accessibility standards, the result is exclusion from opportunities that others take for granted. This gap, often called the **digital disability divide**, reflects infrastructure inequities, affordability barriers, and inaccessible design.[31,32]

The digital disability divide also extends to skills.

Over **445,000 Canadians** with disabilities report that limited digital skills are a barrier to internet use.[22]

Addressing these gaps requires targeted digital skill development initiatives.

Digital **Skills Development**

Digital skills are now a prerequisite for meaningful participation in the labour market. Without them, individuals risk being excluded from job opportunities, professional development, and the growing number of roles that rely on technology for everyday tasks. When people think of digital skills, coding and engineering often come to mind, but they are not limited to these domains. Digital skills include any use of digital tools to "perform tasks, solve problems, communicate, manage information, collaborate, as well as to create and share content effectively, appropriately, securely, critically, creatively, independently and ethically".[33]

The Government of Canada's **Skills for Success** framework emphasizes that digital skills are essential, and closely linked to other core competencies. Digital skills are one of several foundational domains needed for lifelong learning and employment, alongside traditional, 'technical' skills (e.g., reading, writing, and numeracy) and transferable skills (e.g., adaptability, collaboration, communication, problem-solving, and creativity and innovation).[34] Digital skills form the basis for understanding and engaging with digital content, evaluating information, and communicating effectively in digital spaces. Strong digital skills also depend on strong abilities in the other essential skill areas.

Skills for Success

Technical skills are competencies such as reading and writing that are important for the workplace.

- **Digital:** Using digital tools to find, use, create, and communicate information (e.g., emailing, using the Internet safely, communicating on social media, making a spreadsheet, applying for jobs online)
- **Numeracy:** Finding, understanding, using, and reporting mathematical information presented through words, numbers, symbols, and graphics (e.g., performing calculations, managing budgets, analyzing, and modelling data and making estimations)

- **Reading:** Finding, understanding, and using information presented through words, symbols, and images (e.g., locating information on forms and drawings; reading items such as emails, reports, news articles, blog posts, and instructions)
- **Writing:** Sharing information using written words, symbols, and images (e.g., filling out forms, applications, writing emails, reports, and social media posts)

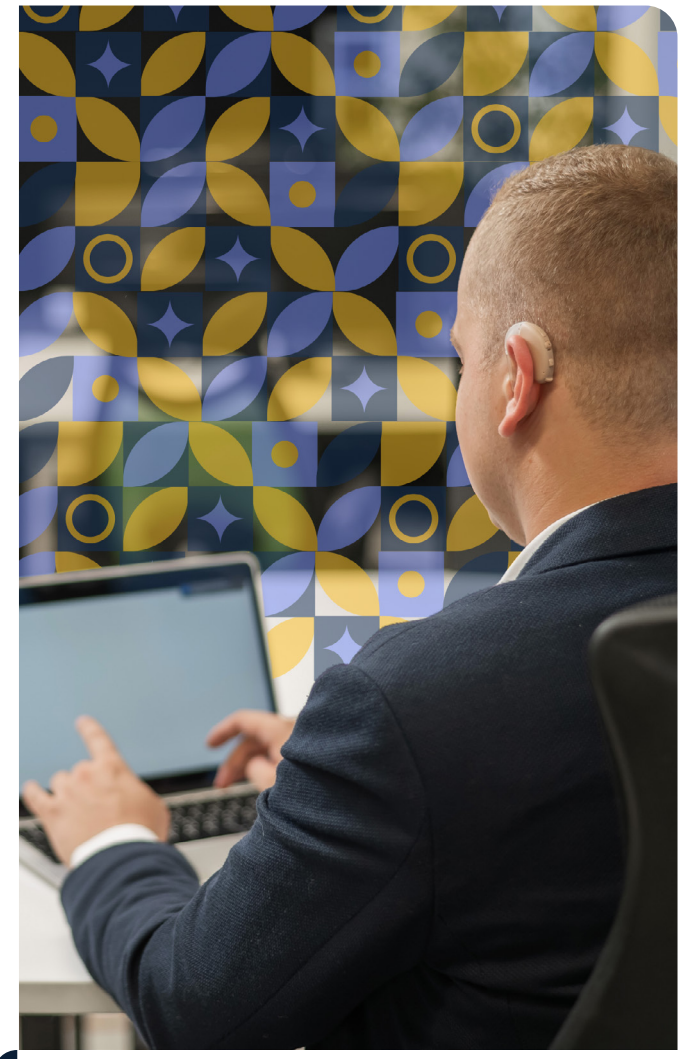
Transferable skills are competencies such as communication and problem solving which are important in the workplace.

- **Adaptability:** Achieving or adjusting goals and behaviours in the face of expected or unexpected change (e.g., change work plans to meet deadlines; listening to feedback to improve knowledge and skills)
- **Collaboration:** Contributing and supporting others to achieve common goals (e.g., helping team members; brainstorming ideas together)
- **Communication:** Receiving, understanding, considering, and sharing information through speaking, listening, and interacting with others (e.g., listening to instructions; serving customers; resolving conflict)

- **Creativity and innovation:** Imagining, developing, expressing, encouraging, and applying ideas in novel and unexpected ways or methods which challenge existing norms (e.g., discovering better ways of doing things; developing new products; delivering services in unique ways)
- **Problem-solving:** Identifying, analyzing, proposing solutions, and making decisions to address issues, monitor success, and learn from the experience (e.g., making hiring decisions; selecting courses of action; resolving technical failures)

Barriers to Digital Skills Development

The digital transformation of the workforce has heightened the demand for both technical and interpersonal skills. Proficiency in areas like AI, digital communication, and workplace technologies are now essential across many roles. At the same time, soft skills such as communication, empathy, and collaboration are also critical, especially in positions that require adaptability and human-centered interaction.[19] Some experts, like Murugan Anandarajan, Professor of Decision Sciences and Management Information Systems at Drexel University, have argued that the most important future skills will involve turning "machine output into useful human insight" – merging crucial soft skills with digital competency.[35]



Inaccessible training platforms, limited access to inclusive education, and underrepresentation in skill-building initiatives contribute to a persistent skills gap for people with disabilities, leaving them at a competitive disadvantage in the labour market.[19] A major driver of this divide is digital inaccessibility: when learning tools and technologies are not designed with accessibility in mind, job seekers with disabilities are excluded from opportunities to build the competencies that employers demand.[19] For example, a job seeker who uses a screen reader may be unable to complete an online resume-building workshop if the platform is not compatible. Similarly, if virtual job training programs lack features like captioning or keyboard navigation, individuals with hearing or mobility disabilities may be unable to participate. Approximately 24% of Canadians (1.2 million out of 5 million) aged 15 years and over with at least one disability experienced barriers such as lack of options to adjust features (e.g., colour, text size, or font), poor design, unavailable or inaccurate text alternatives or closed captioning, when watching or listening to online content in 2024.[36] These barriers prevent job seekers from developing both technical and soft skills, reinforcing a cycle in which inaccessible systems limit skill development, which in turn impacts employment opportunities.[19]

Without accessible and forward-looking training, people with disabilities risk being left behind in a labour market that is rapidly evolving through automation and AI integration. To ensure equitable access to employment, there is a growing need for targeted, accessible training programs that help job seekers with disabilities develop strong, well-rounded skillsets, including the soft skills that set people apart from machines.[19]

Without universal access to digital technology, job seekers with disabilities face significant barriers not only in accessing online platforms, but also in developing the essential skills required to compete in today's job market. In 2024, nearly 40% of Canadians aged 15 and older with at least one disability – 2.4 million out of around 6 million – faced at least one barrier when using technological devices.[37] These difficulties included using or accessing files or documents, searching the web and performing everyday online tasks, and engaging in communication-related online activities.[37]

Best Practices in
Digital Access and Accessibility

Addressing Infrastructure Gaps

Digital infrastructure like reliable Internet access, personal devices such as smartphones and computers, and accessible software is foundational to digital participation. Without consistent access to these tools, digital skills such as the ability to use emails, video conferencing tools, and productivity software cannot be meaningfully developed. Best practices include designing digital public infrastructure in consultation and partnership with marginalized users, prioritizing offline functionality, multilingual interfaces, and compatibility with assistive technologies.[38]

Investments in community-based access points such as schools, libraries, and community centers can help bridge infrastructure gaps, especially in rural or underserved areas.[39] Co-creating solutions with affected communities ensures that infrastructure investments reflect real-world needs and usage patterns.[40] Partnerships across government, private sector, and civil society are essential to scale inclusive infrastructure and ensure sustainability.

Accessible Design Standards

Accessible design is a cornerstone of digital inclusion. Persons with disabilities often face barriers when navigating websites that lack compatibility with assistive software, alternative text, proper colour contrast, captions or transcripts, intuitive navigation, consistent layouts, and brevity.[41,42]

Service providers can promote the adoption of the Web Content Accessibility Guidelines (WCAG 2.1), which align with the Accessibility Requirements for Information and Communication Technologies (ICT) Standard.[43] Adopting accessibility standards helps ensure legal compliance, improves usability for all Canadians, and future-proofs digital services.[44]

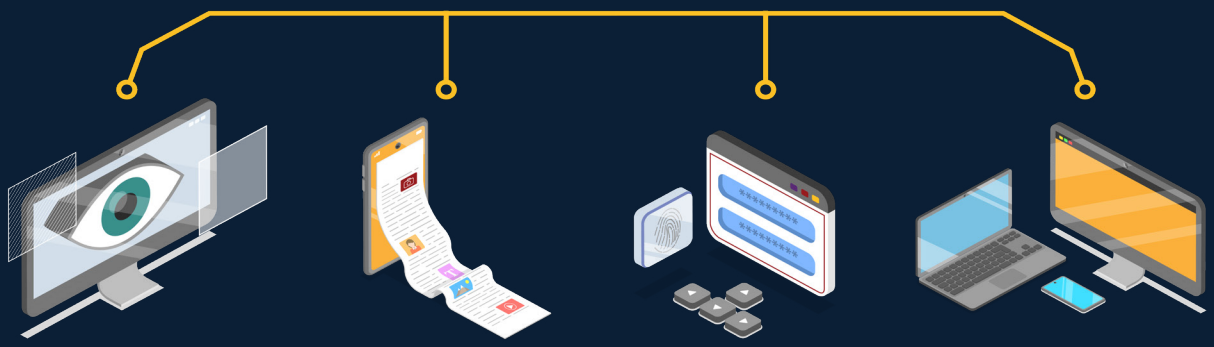
Web Content Accessibility Guidelines WCAG 2.1 Overview[25]

The current Canadian standard for digital accessibility is the Web Content Accessibility Guidelines (WCAG) 2.1, published by the World Wide Web Consortium in 2023. This spotlight includes an overview of key principles and guidelines that service providers, policymakers, and employers can refer to for inclusive web content.

Key Principles of Web Content Accessibility

WCAG 2.1 includes four foundational principles:

- **Perceivable:** Information must be presented in ways that users can detect and understand.
- **Operable:** Interface and navigation components must be usable by all, including those relying on keyboard or other input methods.
- **Understandable:** Content and controls must be clear, predictable, and easy to understand.
- **Robust:** Content must work across current and future technologies, including compatibility with assistive tools.



Key Guidelines

WCAG 2.1 includes several key guidelines to ensure accessibility:

- Use clear and simple language that's easy to read and understand
- Ensure logical structure and navigation, including headings, labels, and keyboard accessibility
- Maintain sufficient colour contrast so text and interface elements are easily visible
- Ensure compatibility with assistive technology (e.g., screen readers, magnifiers, and speech input tools)
- Provide text alternatives for non-text content, such as alt text for images and transcripts or captions for audio/video
- Display helpful error messages and instructions to guide users through forms and interactions
- Use valid code (e.g., HTML) to support accessibility across browsers, devices, and assistive tools

Strategies for Supporting
Digital Skills Development

This section highlights initiatives and practices for service providers to help close the digital divide for persons with disabilities, including accessible learning and training programs, advocacy, and effective program monitoring and evaluation.

Digital Skills Training

Many employment service providers across Canada are actively delivering targeted digital skills programs that are inclusive by design.

Digital literacy initiatives are most effective when grounded in evidence-based practices, including:

Inclusive and Contextualized Learning

Accessibility, inclusion, and customization are foundational to effective digital skills training. Programs that use plain language, multiple languages, and culturally relevant content can support diverse learners. **Contextualized learning** connects training to the real-life situations, goals, and environments of participants, making it more meaningful and applicable, as well as helping learners see themselves and their communities reflected in the learning experience.[45] This approach also supports the development of transferable skills by meeting learners where they are and grounding instruction in familiar contexts. When learners recognize their realities in the training, engagement increases and outcomes improve.

The Universal Design for Learning (UDL) framework is central to this approach, and includes three core principles: **engagement**, **representation**, and **expression and action.**[46]

Engagement: Meeting Learners Where They Are. Engagement is strengthened when curriculum design considers the diverse experiences, knowledge bases, learning preferences, and abilities of participants.[46] For example, learners may prefer storytelling over theory-building, group work over independent tasks, or hybrid learning over fully in-person or online formats.

Hybrid learning models, which blend virtual and in-person delivery, have proven particularly effective.[47,48] These models allow learners to learn at their own pace while applying skills in real-world contexts. This flexibility is especially valuable in Canada, where populations are spread across large geographic areas, requiring scalable, adaptable solutions.[49]

Representation: Communication in Multiple Ways. Representation refers to the different ways information can be communicated, such as symbols, words, visuals, and language structures.[46] In digital skills training, effective representation involves learning through multiple modes, such as watching videos, defining key terms, analyzing examples, and engaging in discussions.[46] Offering participants choice and agency over their learning also improves engagement; for example, by allowing participants to select the most relevant and interesting courses from a catalogue. Giving participants the autonomy to build their learning plans fosters motivation and deeper understanding.

Expression and Action: Valuing Diverse Outputs. People have different needs for how they navigate learning environments, process information, and communicate.[46] Some modes of content delivery or assignment formats can also create barriers for some people with disabilities. For example, some may find timed exams stressful, but can communicate their thoughts clearly and effectively in written essays; others may struggle with public speaking but contribute thoughtful insights in group discussions. The UDL framework supports this diversity by encouraging instructors to incorporate multiple forms of expression into curricula, such as writing, audio recordings, slide presentations, building models, or crafting.

Building Connections. Peer support and mentorship are best practices that align with all three UDL principles. Peer support involves reciprocal relationships between individuals who share common challenges (e.g., navigating digital inaccessibility in the online job search process), while mentoring pairs experienced individuals with less experienced 'mentees' to share knowledge and guidance.

Mentoring can take place within formalized, structured programs or through informal relationships. Research shows that mentorship offers meaningful benefits for job seekers with disabilities, especially young adults[50,51], such as supporting educational attainment, career development, and social inclusion. Other reported outcomes include increased self-confidence, a stronger sense of belonging, improved communication and personal relationships, goal setting and achievement, exploration of new career pathways, and enhanced learning and networking opportunities.[51]

Integrating opportunities for peer and professional connections can significantly enhance the learning experience in digital skills programs. Both peers and established career mentors can provide encouragement and shared lived experiences. Employment service providers can facilitate these opportunities by offering platforms for persons with disabilities to connect with peers and career mentors, as well as working directly with mentors to provide them with disability-inclusive resources and information.

Building Interconnected Skills

Canada's Skills for Success framework emphasizes how core skills build upon each other, including technical skills like digital skills, reading, writing, and numeracy, as well as transferable skills (or 'soft skills') like adaptability, collaboration, communication, problem-solving, and creativity and innovation.[52] All of these are essential for navigating digital environments and today's workplaces. Additionally, as AI tools and automation become increasingly prevalent, the value of human skills like creativity and collaboration – skills that AI technologies cannot yet replace – are even more valuable. With employers becoming more aware of what AI tools cannot do, the most competitive workers are those who can integrate soft skills and AI literacy.[53]

Research shows that integrating both technical and transferable skills into digital skills programs lead to more meaningful learning outcomes. Learners become better equipped to apply their knowledge in real-world contexts, adapt to new technologies, and participate fully in digital society.

Hands-on Practical Learning Experiences

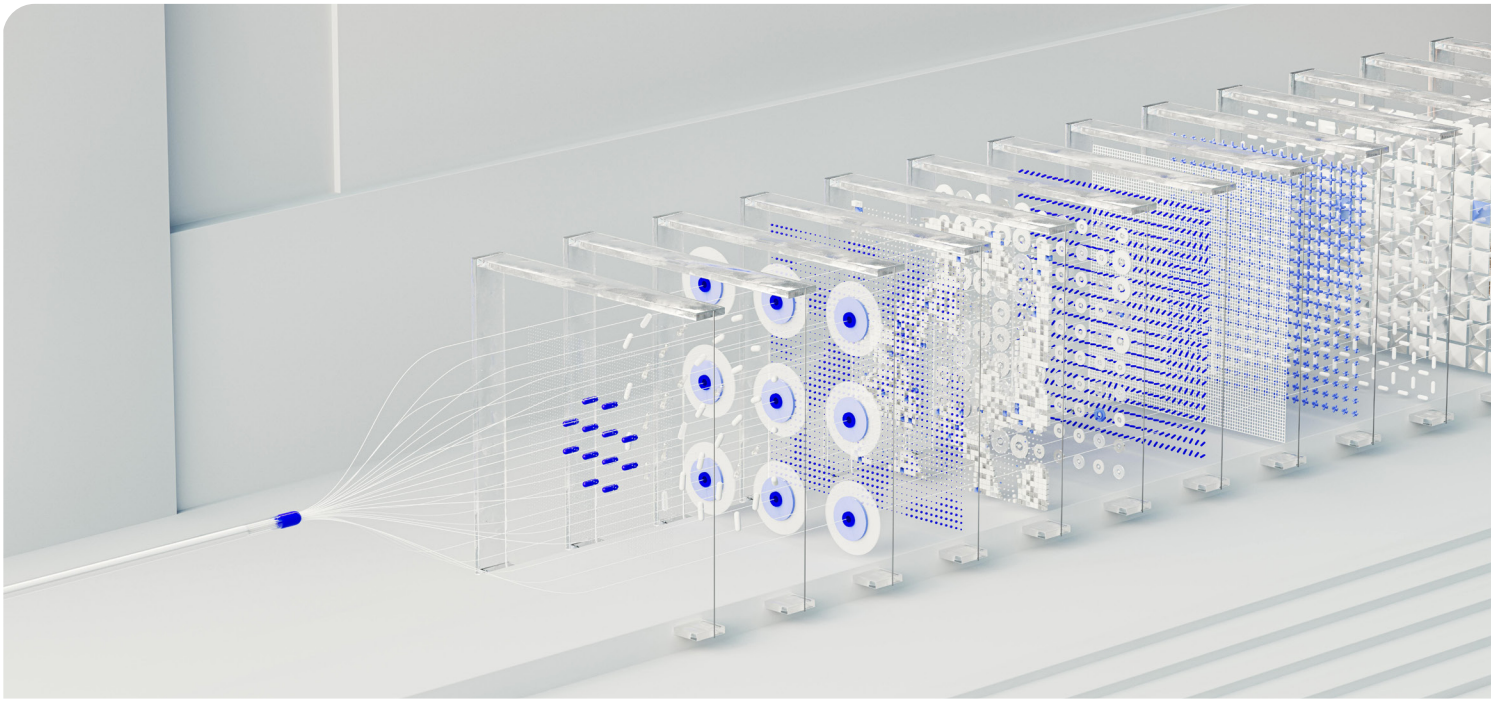
Research consistently demonstrates that experiential, applied approaches where learners use digital tools in real-world scenarios are significantly more effective than passive, lecture-based approaches.[54] These methods make learners more confident, independent, and improve long-term retention.[55]

For service providers, this means designing training programs that go beyond theoretical instruction. Interactive workshops, guided practice sessions, and project-based learning allow participants to build digital skills in the settings where they will use them. For example, learners can collaboratively use resume optimization tools like JobScan in group settings, co-develop and present digital literacy modules to practice facilitation and research skills, or engage in gamified digital safety challenges where they compete to identify and respond to online threats. These approaches not only reinforce technical skills but also foster peer learning, critical thinking, and adaptability – key traits for navigating the evolving digital landscape. Facilitators play a central role in shaping these experiences, acting as guides, collaborators, and co-learners who help build trust and relevance throughout the learning journey.

Scaffolded, Modular Program Design

Effective skills training uses **scaffolding** (step-by-step learning plans where the instructor gradually provides less guidance) and **modular design** (learning units are separate, self-contained 'modules' that can be combined and personalized).[56,57] These instructional designs break down complex digital competencies into manageable, sequential units, allowing learners to build confidence and mastery.[56] In other words, learning is structured progressively, beginning with foundational digital skills and gradually building toward more complex competencies. By organizing content into interconnected modules or building blocks, learners can deepen their understanding and see how skills relate to one another. This approach supports holistic, practical proficiency and helps learners apply digital skills in real-world contexts.

For service providers, implementing scaffolded learning means designing programs where each module builds on the last, with clear learning objectives, accessible materials, and opportunities for guided practice.[58] This structure allows learners to progress at their own pace, revisit foundational concepts as needed, and experience a sense of achievement at each stage.[59,60] Modular design also enables customization and personalization, making it easier to adapt content to individual learning styles, assistive technologies, and support needs.[61,62]



Empowered Instructors and Facilitators

Service providers are community connectors and advocates who can bridge the divide between job seekers, skill development opportunities, and employers.[63] To fulfill this role effectively, they must be equipped not only with foundational teaching skills, but they must also keep their knowledge base up to date.[64] This means participating in ongoing professional development, using adaptive teaching strategies like UDL, and being given opportunities to co-create learning environments with community members.[65]

More concretely, instructors and facilitators can keep pace with dynamic changes in technology by:

- Developing a strong foundation in widely used tools such as Microsoft 365, social media, and emerging AI technologies.
- Following RSS feeds, technology blogs, and newsletters to stay informed.
- Subscribing to updates from major technology companies like Microsoft, Google, Apple, and OpenAI.
- Setting aside regular time for professional development and technology exploration.
- Maintaining an open, flexible, and adaptable mindset toward change.
- Communicating clearly with learners about the rapid pace of technological evolution.
- Creating co-learning opportunities where facilitators and learners explore new tools together.

When instructors are confident, well-supported, and reflective in their practice, they can foster inclusive, engaging, and personalized learning experiences that benefit all learners.

Beyond Curriculum Design: Building Trust, Community Engagement, and Monitoring and Evaluation

In addition to designing effective curricula, as community connectors and advocates, service providers have a responsibility to foster trust, encourage community engagement, and actively participate in monitoring and evaluation processes.

Building Trust and Community Engagement

A collaborative, community-driven approach is foundational to effective program design, including skills training programs. This can mean co-designing initiatives with local community organizations, disability advocates, and representatives of other communities (such as Indigenous communities), ensuring that programs are not only accessible but also culturally relevant and aligned with the lived experiences and priorities of the communities they serve.[66]

Participatory models – where end users are invited to co-design skills training programs aligned with community needs – support the integration of traditional knowledge systems and culturally grounded learning methods, which are especially important in Indigenous and other marginalized contexts.[67] When digital skills training is delivered in familiar community settings and reflects local cultural practices, it not only improves learning outcomes but also strengthens social cohesion and intergenerational knowledge sharing.[66]

Peer mentorship and the use of community ambassadors have emerged as powerful strategies to enhance program uptake and relevance. These approaches leverage trusted community members

to deliver training and support, which increases comfort, reduces stigma, and fosters a sense of ownership and empowerment among participants.[68]

Community-engaged program design must be paired with intentional relationship-building between facilitators, learners, and communities to foster trust, mutual accountability, and long-term impact. Programs which actively involve community members not only build local capacity but also promote sustainability by aligning with community needs and values. In the context of digital skills training, these approaches are especially powerful in bridging the digital divide by addressing systemic barriers and creating inclusive pathways into the digital economy.[69] Facilitators play a pivotal role in this process: their ability to build rapport, adapt to learner contexts, and co-create learning experiences directly influences how programs are received and whether they succeed in empowering participants. Designing with – not just for – communities ensures that digital inclusion efforts are meaningful, equitable, and enduring.

Monitoring and Evaluating Impact

Effective monitoring and evaluation are essential to ensure that programs are impactful and responsive. A strong evaluation framework helps individual participants assess and understand their progress and ensures organizations can demonstrate program success and address gaps. Ideally, evaluation frameworks should incorporate both quantitative and qualitative data to provide a well-rounded understanding of program outcomes. For self-directed learners, their individualized training plans and personal goals should be evaluated using success metrics that are determined collaboratively with coaches or instructors.

Quantitative data refers to measurable, numerical or statistical indicators that can be tracked over time. Examples of quantitative indicators to track progress include levels of digital confidence, number of digital skills acquired, and employment and education outcomes. These metrics allow for standardized comparisons across programs and help demonstrate impact to funders and stakeholders.[70]

Qualitative data, on the other hand, captures the depth and nuance of participants' experiences. It can be gathered through interviews, focus groups, and open-ended surveys. This feedback can reveal barriers, cultural considerations, and suggestions for improvement that may not be captured through standardized assessments.[70]

Evaluation should be an ongoing process that informs program refinement. For example, feedback from program participants with disabilities can guide adaptations that make programs more accessible. This iterative approach ensures that digital skills initiatives remain aligned with community needs and values.[70]

CCRW clients build digital skills through eLearning and individualized coaching

In 2022, CCRW began developing skills training for job seekers and workers with disabilities. Funded by the Government of Canada's Skills for Success program, CCRW created a comprehensive eLearning platform with over 70 trainings, including 6 focused on digital skills like using Microsoft Word, safe Internet navigation, and creating a professional digital footprint. With a comprehensive catalog of transferable skills trainings, users can also build interconnected skills in core domains like communication and writing; for example, how to write effective professional emails.
Job seekers with disabilities work together with CCRW's Employment Services staff to create personalized training and job search plans. With a large library of modular, accessible courses to choose from, clients can build skills in the areas most relevant to their own career journeys.

Pre- and post-course evaluations from clients who used CCRW's Digital Skills courses showed an average improvement of over 18 percentage points on core learning outcomes like using Microsoft Word to build a resume; applying strategies to keep personal data secure; and using social media networks to find job opportunities.

You can learn more about CCRW's eLearning courses for job seekers with disabilities here: https://ccrw.org/resource/elearning-courses/

A Call **to Action**

As the labour market continues to digitize, the demand for digital skills is growing across sectors, but persons with disabilities still encounter significant barriers accessing the digital economy. The digital disability divide, characterized by gaps in both infrastructure and skills, risks deepening existing inequities unless addressed with urgency and intentionality. Closing this divide requires coordinated, sustained action

To foster inclusive employment opportunities, strategies must prioritize **accessible digital infrastructure, content and design features, and inclusive skills development.** This includes ensuring accessible design, bridging infrastructure gaps, and scaling inclusive digital skills programs. For service providers, this means offering contextualized, scaffolded, modular, and practical training that goes beyond technical proficiency skills and is led by empowered facilitators. Building trust through community engagement and mechanisms for continuous improvement are also essential to supporting the digital empowerment of persons with disabilities.

Service providers play a critical role in delivering these solutions, but they need adequate funding, clear guidance, and collaborative design processes that center lived experience. Policies and programs that take an intersectional approach by addressing disability and demographic factors like race, socioeconomic status, gender, and geography together are more likely to drive meaningful and systemic change.

There is also an opportunity for service providers and other community advocates to be agents of change through employer engagement. By educating employers on the importance of digital accessibility, they can make the labour market more inclusive one workplace at a time. As organizations advance their digital transformation and increasingly embed new technologies like AI in their daily operations, advocates can help ensure accessibility is not an afterthought; tools, platforms, and processes must be usable for all employees. At the policy level, advocating for the comprehensive implementation of relevant digital accessibility standards (such as WCAG 2.1) under the *Accessibility Requirements for Information and Communication Technologies* (ICT) Standard (Accessibility Standards Canada, 2024) and Sections 10.6 (Access to information) and 10.7 (Information technology) of the *Accessibility Standards Canada Standard on Employment*[71], and for the expansion of subsidies for assistive technologies, are two other actionable steps.

Digital inclusion is not just a technological issue. In an increasingly digital world, it is a human right. Empowering persons with disabilities to fully participate in the digital economy is essential to building a future that is inclusive, innovative, and fair for all.

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