



Connected with limited access: Rural Connectivity and LBS in Ontario

Micro Update Fall 2024

Introduction and background

Rural connectivity has been identified as an ongoing challenge and barrier to LBS learning across the province including the service delivery sites in Eastern Ontario. This issue presented several occasions throughout the 2024-2025 Literacy Services Planning and Coordination process, and thus became topic of consideration and research for Literacy Link Eastern Ontario. The goal of this micro update is to explore the status of rural connectivity in Literacy and Basic Skills (LBS) programs in Ontario, with a focus on recommendations to enhance Literacy Service Provider Capacity within the LLEO network of Eastern Ontario.

LLEO conducted an environmental scan and literature review, followed by individual shareholder discussions and surveys to investigate the current status of rural connectivity in Ontario LBS programs.

For the purposes of this report, we consider ‘connectivity’ as the ability to access the tools needed to develop digital literacy skill - includes fiberoptic infrastructure and reliable Wi-Fi, equipment, hardware, licensed software, LBS practitioner training, digital literacy resources like assessments and curriculum, and online learning platforms.

‘Rural connectivity’ refers to rural and remote communities of Eastern and Northern Ontario with population of less than 20,000 and limited amenities like internet and Wi-Fi infrastructure and access to public transportation resulting in limited or interrupted access to LBS training, digital skills development and online learning.

Literacy is defined by the Ontario Ministry of Labour, Immigration, Training and Skills Development (MLITSD) as:

“Literacy is the ability to apply communication, numeracy, and **digital skills** to find, use, create, and think critically about information and ideas. Literacy spans a

continuum of learning that enables individuals to achieve their goals, solve problems, make decisions, participate fully in our diverse and technological society, and contribute to the innovation economy.” (SO Guidelines p.5)

Digital skills and online connectivity are an integral everyday component of literacy and basics skills training, working, and living in the modern world. Evidence of the importance of digital skills is evident especially when considering the absence of connectivity in **Figure 2b. “A day in the life with limited internet access”** from the Institute for Research on Public Policy (IRPP) report **Adult Education: The Missing Piece to Bridging the Digital Divide**. The need for digital literacy skills applies to all LBS learners including newcomers, jobseekers, and seniors.

Executive Summary

The challenge of rural connectivity is a significant barrier to the effective delivery of Literacy and Basic Skills (LBS) programs across Ontario, particularly in Eastern Ontario's remote and rural areas. The ongoing lack of reliable internet, digital tools, and infrastructure impedes learners' ability to develop critical digital literacy skills, thus preventing equitable access to educational opportunities.

This report explores the current state of rural connectivity in LBS programs within Ontario and provides recommendations for improving capacity within the Literacy Link Eastern Ontario (LLEO) network. Through an environmental scan, literature review, and consultations with stakeholders, the report investigates how rural connectivity issues impact LBS programs and outlines strategies to mitigate these challenges.

Key Findings:

1. **Strengths in LBS Programs:** Ontario's LBS programs are well-equipped with various digital literacy tools, including online resources, e-learning platforms, and learner support services. These resources have been bolstered by recent investments in technology. Many LBS providers have successfully partnered with community organizations to share resources and space.
2. **Weaknesses in Infrastructure:** While efforts are underway to expand internet access in rural areas, many regions still suffer from unreliable and limited connectivity. In some areas, fewer than 50% of the population has access to stable, high-speed internet, which significantly hinders the ability of rural learners to engage in online and hybrid learning. The lack of infrastructure, coupled with weather disruptions, continues to impact service delivery.
3. **Financial Challenges:** Current funding models do not adequately support the ongoing costs of technology and infrastructure required for LBS programs. Hidden expenses, such as equipment maintenance, internet costs, software licenses, and staff time dedicated to tech support, further strain limited budgets.

4. **Barriers to Access:** The absence of reliable connectivity in rural areas results in many learners being unable to participate in online or hybrid learning formats. These barriers are exacerbated by the high cost of technology and the logistical difficulties learners face in accessing LBS service delivery sites.

Opportunities and Recommendations:

1. **Create a Rural Community of Practice:** Establish a platform for LBS providers to share best practices and resources, enabling them to collaborate on addressing connectivity challenges.
2. **Enhance Digital Literacy:** Explore learner-led initiatives, such as digital skills development circles, and provide more resources for educators to strengthen digital literacy in their communities.
3. **Improve Purchasing Power:** Consider consortium procurement strategies for software licenses and tech resources to reduce costs for small, community-based LBS sites.
4. **Conduct Connectivity Audits:** Implement tools such as the Digital Literacy Audit Tool to assess the needs of LBS programs and guide strategic technology planning.
5. **Seek Corporate and Private Sector Support:** Explore partnerships with private entities for sponsorships and fundraising to address the funding gap.
6. **Build a Centralized Resource Hub:** Develop a repository of digital tools, rural connectivity resources, and funding opportunities to assist LBS service providers.
7. **Advocate for Stable Funding:** Urge the Ontario Ministry of Labour, Immigration, Training, and Skills Development (MLITSD) to allocate stable core funding that includes support for technology and staffing.

Conclusion:

Rural connectivity remains a critical issue for LBS programs in Ontario, creating inequities in access to digital literacy education. Despite the availability of valuable resources and platforms, many rural learners face challenges in accessing these tools due to unreliable internet and infrastructure limitations. Addressing

these challenges will require collaborative efforts, enhanced funding, and strategic resource sharing to ensure all learners have the opportunity to develop essential digital skills. This report will inform future Literacy Service Planning and Coordination in Eastern Ontario and guide the LLEO network's business planning for the 2025-2026 cycle.

Figure 2b. A day in the life with limited internet access



To understand the status of rural connectivity in the LBS Program, we conducted interviews with rural LBS delivery sites in Eastern Ontario, Regional Literacy Networks and Provincial Support Organizations, and conducted a review of recent literature and reports about the topic of connectivity. This report summarizes those discussions and readings and provides light touch recommendations for enhancements within the current capacity of the Ontario LBS program.

Strength: LBS programs, resources and tools

Adult education within the LBS program in Ontario is well equipped with diverse online learning services and resources including e-channel, Good Learning Anywhere, the Learning Hub, ACE Distance, S5, Moodle unplugged, AlphaPlus, and Contact North. Online training is available in all cultural streams and sectors, instructor tech training and coaching services are available, as well as learner supports like the Contact North study online [laptop loaner program](#). Contact North also offers support through a dedicated hotline for tech calls operated by a team of technology specialists.

LBS service providers and practitioners are eager to support learners in any way they can and have successfully partnered with external community services to share space and resources.

The strength in this circumstance is from creative solutions by LBS Service Providers, adult literacy instructors, volunteers and in kind donations.

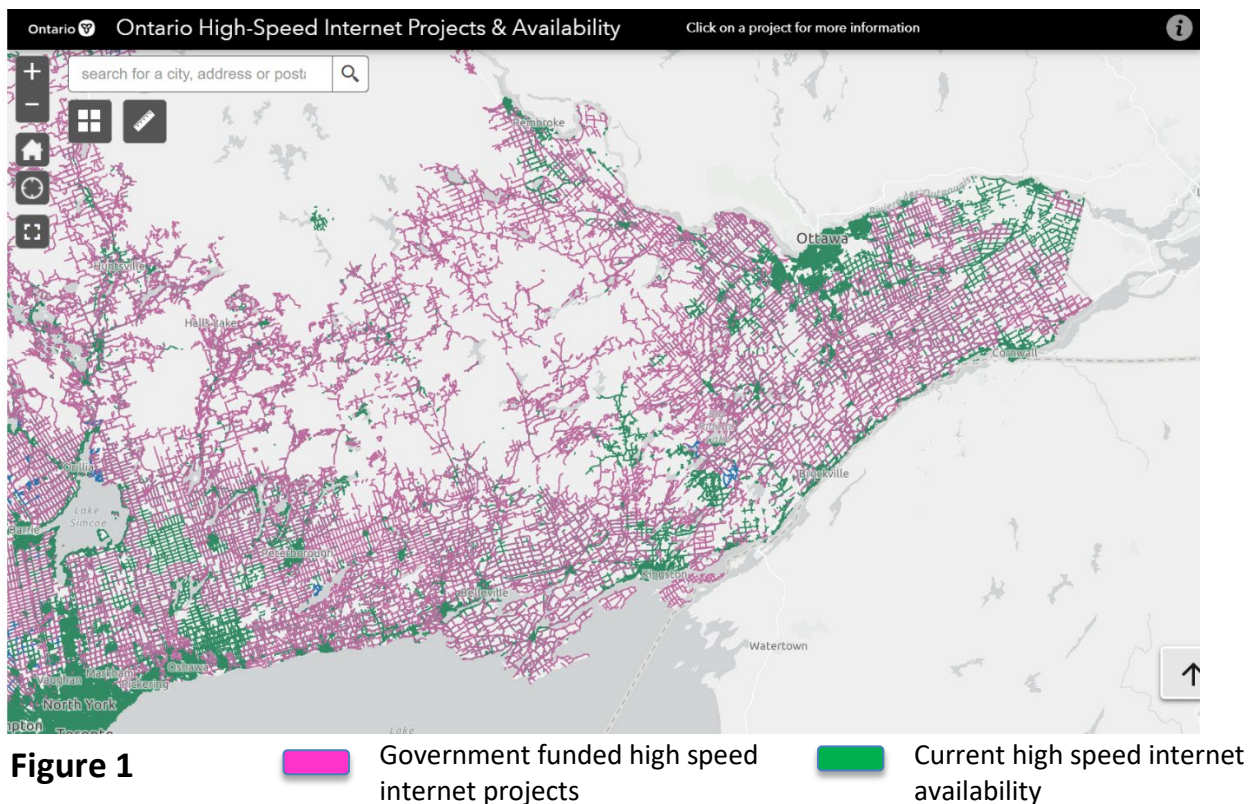
Due to a significant recent investment in technology and online learning services during the Covid pandemic and the recent Skills for Success projects, there is a plethora of digital literacy curriculum and practitioner resources available.

One rural LBS program in Eastern Ontario reported that last year they supported approximately 100 learners in person, including 10 hybrid, working on goal paths

that require access to technology/equipment, wifi and/or internet and improving digital literacy skills. In 2023-2024 the LBS program served more than 6,000 online learners.

Weakness: Infrastructure Development

While there is ongoing development and expansion of high speed internet projects, seen in **Figure 1**, the infrastructure cannot be built fast enough. According to one Regional Network these projects are incentivized by the work from home movement and rural business migration.



Source: <https://www.ontario.ca/page/ontario-connects-making-high-speed-internet-accessible-in-every-community>

In **Figure 2** we can see that significant geographical regions of the province still have very low access to stable and reliable internet.

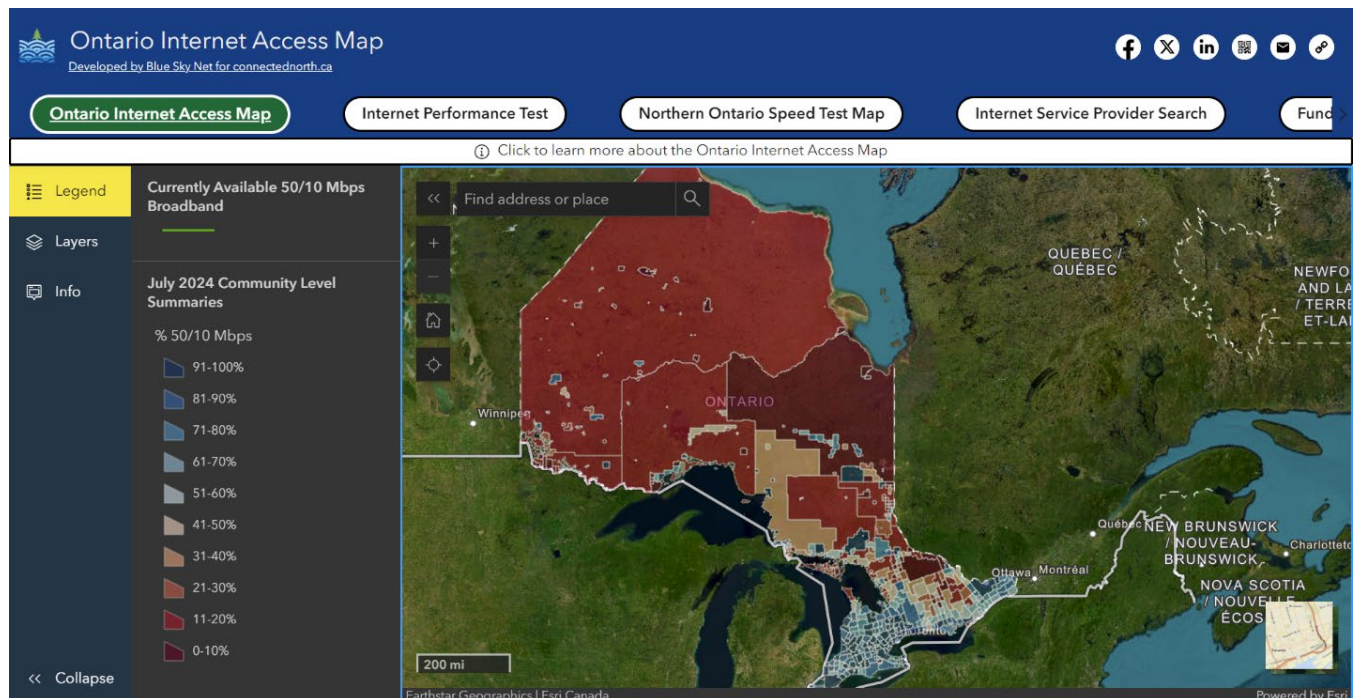


Figure 2

Source: <https://experience.arcgis.com/experience/afb41a47d5244bac826d33a342ae7882/page/Ontario-Internet-Access-Map/>

Figure 3 illustrates the geographical regions in Eastern Ontario that still have very low access to stable and reliable internet - typically only 50-80% of the population have access to reliable high speed internet (50/10mpbs). This means that 20-50% of the population, including LBS programs and learners, in these areas have significant barriers to connectivity. Until the infrastructure is in place, many LBS programs that do have access to internet are subject to shutdowns due to weather conditions – “if it storms for three days, we close and can’t run classes”.

The lack of connectivity is a barrier to learners developing their digital literacy skills in that they are unable to learn online from a distance if they don’t have reliable and affordable access to internet or Wi-Fi, regardless of whether they can participate in the laptop loaner or mobile internet stick lending programs. Rural

learners still need a place to connect and have to find their way to the LBS service delivery site during limited hours of operation, sometimes travelling up to 50 kms.

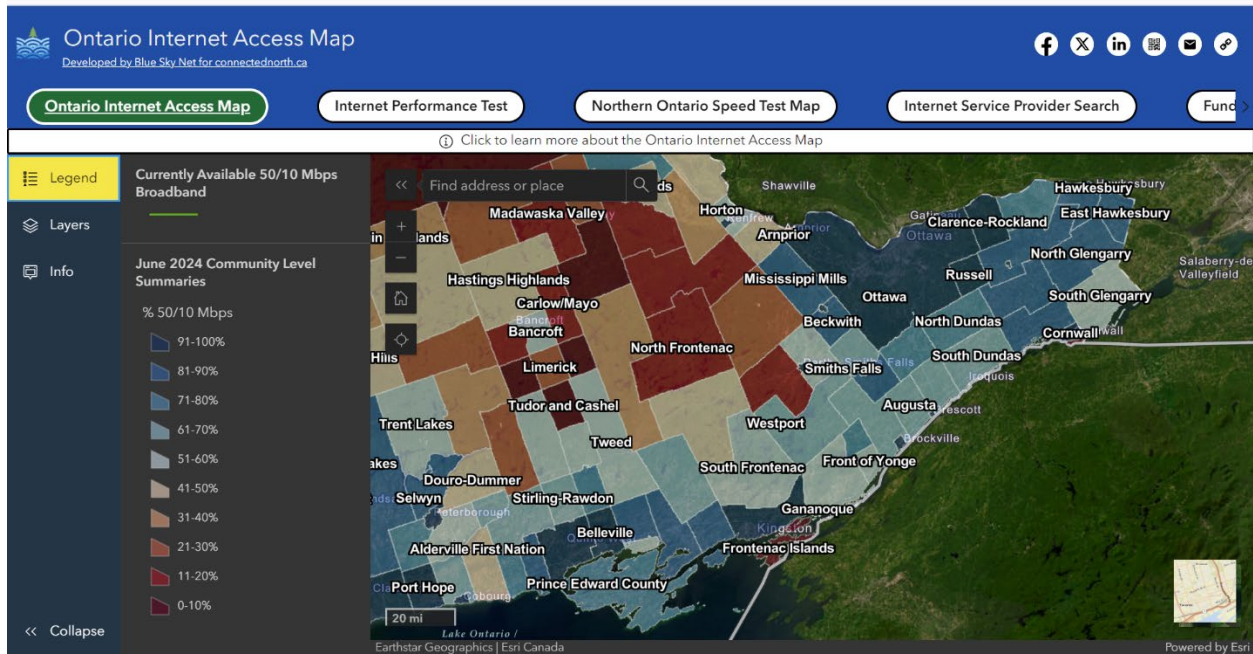


Figure 3

Source: <https://experience.arcgis.com/experience/afb41a47d5244bac826d33a342ae7882/page/Ontario-Internet-Access-Map>

Threat: Expenses and hidden costs

Current core funding does not support rural connectivity and sustainable tech plans.

Let's look at an example of a rural LBS service provider serving 82 learners a year, 50% hybrid, with an annual OTPA of \$94,000, with 5% of their budget allocated to tech.

Connectivity and hidden operating expenses* include:

- \$6000+ for hardware and equipment (2 laptops, 1 whiteboard)
- \$2100/year for internet (approximate average Xplornet satellite \$175 month)
- \$1200/year for website maintenance fees
- Modems
- Routers
- Portable wifi sticks
- Computer tables, cables, chairs
- Printer/photocopier/scanner
- Software licensing (Zoom, Microsoft, Adobe)
- Electricity, utilities and facility maintenance
- Staff time – amateur IT - installing, troubleshooting and repairing equipment and tech, takes them away from instruction and prep time
- Staff time – training to learn about digital updates including literacy tools, resources and AI applications
- Staff time – procurement and administration
- Staff time – learner assessments, plans, instruction, support, milestones, culminating task ¹

The current annual funding model does not support tech equipment replacement, repair or planning for tech equipment end of serviceability, nor does it provide

¹ Based on approximate and estimated revenue and expenses at market value August 2024

adequate funding for staff training and IT services. From our regional LSPC input we know that LBS learners prefer face to face in person learning and that the LBS program offers a robust menu of online learning options. However, some learners are being left behind without rural connectivity to develop their skills in person or in hybrid format to be able to prepare and transition to independent online learning.

Summary of Readings

- Adult learners in rural and remote Ontario continue to experience a digital divide and inequitable access to LBS programming
- Adult learners in rural and remote areas face barriers to learning due to infrastructure (unreliable internet access) and affordable technology (equipment, instruction, LBS service provider capacity etc.)
- Current funding does not meet the needs of LBS service delivery sites to provide quality service
- Building infrastructure and access to connectivity is taking time

Opportunity: Recommendations

Digital skills are part of everything we do every day. LBS Service providers are eager to support online learning for learners developing their digital skills in person or through hybrid delivery to be able to prepare and transition them to independent online learning and enhanced digital literacy.

While larger systemic barriers like internet infrastructure are not within the LBS program scope to solve, there are light touch and scalable opportunities with short term and mid-term impacts in the meantime.

1. Initiate a Rural Community of Practice connecting LBS practitioners to share best practices, including effective and efficient approaches to the challenges and barriers for remote and rural LBS programs including connectivity. Some remote programs are already doing this, including and/or offering the opportunity for less remote programs to participate could be a low cost option. (Ironically, provided they can connect online)
2. Explore learner led learning circles from examples in AlphaPlus's publication [Digital Inclusion Playbook](#) as a way to enhance digital skills development knowledge sharing.
3. Enhance purchasing power by exploring consortium procurement of software licenses to improve accessibility for small community based LBS delivery sites. Another exploration could be to assess the feasibility of colleges and school boards sharing access to resources with community based LBS delivery sites.
4. Implement [Digital-Literacy-Audit-Tool.pdf \(calgarylearns.com\)](#) (short term) to assess needs and gaps and inform strategic tech plans.
5. Explore and expand corporate/private sector sponsorship and fundraising. There is a limitation with this in that fundraising is time consuming, requires

staff time, volunteers, admin etc., often requiring years to establish significant gains.

6. Develop a central repository of digital resources, rural connectivity tools and funding resources for LBS leaders and practitioners to access.
7. MLITSD provide stable core funding, build tech and staff into funding

Regional Literacy Networks can support rural remote programs with the following activities:

1. Coordinate a Rural Connectivity Community of Practice for LBS service delivery site staff to share experiences and best practices. *(short term impact)*
2. Coordinate ongoing digital literacy train the trainer opportunities with Provincial Service Providers and Provincial Support Organizations
3. Include connectivity audits and updates in annual Literacy Service Planning and Coordination and annual business plans
4. Increase promotion and awareness of existing services and resources available through AlphaPlus and Contact North

In conclusion, the LBS program in Ontario is 'connected with limited access'. The LBS program has access to many digital literacy and training resources including assessment tools, curriculum, and online programs, and tech support is provided by Provincial Service Organizations. Unfortunately, while there are many ways to connect, rural learners still experience limited access because of the digital divide. The inequitable digital divide has several root causes including internet and wifi infrastructure in rural and remote areas – the internet is simply unreliable in

many areas of the province, and affordability – expenses and hidden costs are barriers to LBS service providers ability to keep up with tech.

Moving forward, this micro update will be shared with the Provincial Support Organizations and the LBS service delivery sites that participated in the interview process; and will be used to inform and guide LLEO network Literacy Service Planning and Coordination and business planning for 2025-2026.

Sources

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Appendices

Appendix A: Discussion Responses

Please describe your understanding of the need for and usage of digital literacy services and equity in rural areas?

“90% of our learners need digital literacy support.”

“Maximum capacity of 8 due to instructor /learner ratios and available space and equipment”

“Learners prefer in person learning and need to improve their skills before working online independently”

“Equitable access to digital literacy involves addressing these disparities by offering training, affordable technology, and reliable internet infrastructure. This approach helps rural communities stay connected, informed, and competitive, fostering inclusivity and bridging the digital divide between urban and rural areas.”

“Many people still have no cell service where they live and only when they are driving toward town the service returns. We still have a gap in the internet availability in northern Ontario. Local providers have slow internet and some do not have service to the remote areas. There is now Starlink but not everyone can afford this service.”

Please describe your understanding of the need for and usage of digital literacy services and equity in rural areas?

“...what I am seeing there is an appetite for in person learning especially with people over 50. Another aspect is that without basic computer training being learned (in school) it is hindering the ability for some to access online learning platforms without guidance and assistance. For example, one cohort may be extremely adept at using smart technology but do not have the basic computer skills to format/write a resume, letter or how to attach a file to an email. While another cohort can not move past pen to paper learning and are reluctant to use technology based learning platforms. As a community-based program digital literacy is the biggest referral reason and why people reach out for services.”

How is your organization approaching the challenges with rural connectivity and equity? (past and present)

“In kind donations of time from private retailers (repairs, software updates, website issues and updates)”

“Grant applications - subscription service”

“Equipment and space sharing with giag/employment services”

“Contact North offers a laptop loan program”

“Achieving what the community members are requesting for.”

“We loan laptops and chromebooks when feasible and applicable for learners that are learning remotely or in a hybrid schedule. Our training supports are limited and cannot sustainably be used to address access to technology and internet because we have to provide transportation supports in mileage subsidies and

taxis because our community has no public transportation, and our service area spans 45 km in every direction.”

“Not that I know of.”

“I don't know of hand but I am sure the CLO, AlphaPlus and ABC Canada have resources available.”

General Comments:

“In my experience with LBS learners in northern and rural communities, online services are the barrier regardless if they have the means to be there. So much of our services are 'centralized' it becomes disheartening and the response then becomes rejection to connecting online”

Appendix B: Rural connectivity resources for literacy and basic skills

Online learning platforms

[ABC Connect for Learning](#)

[ABC Skills Hub](#)

[e-Channel for students](#)

[Good Learning Anywhere](#)

[the Learning Hub](#)

[ACE Distance](#)

LBS practitioner resources for connectivity and tech support

[AlphaPlus](#)

[e-Channel Help Desk](#)

[e-Channel for practitioners](#)

[Digital Inclusion Playbook](#)

- [Chapter 8: Learner-led learning circles to share apps and tips](#)

[Digital-Literacy-Audit-Tool.pdf \(calgarylearns.com\)](#)

Low and no-cost tech and internet

[Innovation, Science and Economic Development Canada Connecting Families Initiative](#)

[Contact North laptop loaner program](#)

[Digital Inclusion Playbook \(alphaplus.ca\)](#)

- [Chapter 5: Sources of low-cost or no-cost internet and devices](#)

Rogers: [Low Income Affordable Plans - Connected for Success](#)

Telus: [Connecting for Good community programs](#)

[Rumie Open-Source Offline Resource Platform and Library](#)

Tech4All www.letsgettogether.ca/computers

Grant Funding Opportunities

[Northern Ontario Heritage Fund Corporation](#) Rural Enhancement Fund

[Hydro One Energizing Life Community Fund](#)