

Creating Digital Opportunities for Canada: Rural, Small Town and Indigenous Communities and the Prospects of the Digital Revolution

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Research Question: How are small towns, rural areas and Indigenous communities responding to the digital opportunities and challenges in the 21st Century?

Key Finding: Major digital divides have been created between southern and urban centres and northern, rural and Indigenous communities. Responding to the growing gaps in opportunities for work, business development, and economic engagement will require the “inversion of digital innovation.”

The Research: My project began with a survey of close to 50 rural, remote and Indigenous communities in Canada, looking for digital strategies developed at the community and regional level. The findings were designed to be the foundation for subsequent and more focused research at community strategies. The results of these investigations were extremely discouraging. Almost all communities had given little or no attention to digital issues and strategies. The overwhelming majority of the mayors and community administrators took a fatalistic approach to digital opportunities. They accepted infrastructure deficits as being unavoidable and part of the “price” of living outside metropolitan areas. The research had produced, in effect, a “dry well.” I shifted my focus to look at international comparisons, searching for regions or communities that had been more proactive and engaged in the digital economy. The research included the field examination of conditions in rural and small-town areas in Japan, Australia, New Zealand, Norway, Finland, Sweden, Costa Rica and Equador, as well as a more broadly based literature and policy review of other areas.

Research Findings: My research has shown that small towns and rural areas are poorly prepared for 21st century digital engagement. While this is hardly surprising, the low level of community-level understanding and planning was unexpected. The difficulties begin at the infrastructure level, with most small town and rural areas in Canada coping with limited, expensive and unreliable digital connections. The situation is particularly acute in northern and Indigenous communities, where Internet speeds are woefully inadequate for most contemporary and high-end digital applications. A small number of communities, notably Olds, Alberta, and Kaslo, British Columbia, have invested heavily in digital connectivity and provided 1GB Internet to homes and businesses. These developments are too recent to be able to judge the impact of the availability of expanded Internet services.

It is clear, further, that digital technologies have accentuated the vulnerabilities and challenges facing these communities. These settlements have been seriously affected by digital disruptions. Most of the towns have experienced a sharp decline in local services (banking and government program delivery) with businesses and government agencies migrating their operations to digital platforms. There have already been substantial local job losses tied to technological innovations in the resource, agriculture and other sectors, a major dislocation of

retail services due to e-commerce usage, and a general weakening of the local economy. The situation is not all bleak. Some communities, particularly in Yukon, Southwest British Columbia, Banff and Canmore, and selected other smaller centres, digital technologies have allowed “lone eagles” (high income, independent professional contractors) to establish themselves and their companies. These communities typically have high quality living environments, including impressive environmental settings.

Policy Implications: The challenges facing rural and remote Canada have substantial policy implications. If the technological and socio-economic developments continue on their current trajectory, the “digital divide” will grow larger and the small towns, rural and northern communities in Canada will fall further behind. These smaller centres, particularly in rural and Indigenous areas, will not have access to many commercial and government services, entertainment, advanced medical and educational applications, and other digital technologies. The research has raised a variety of questions and issues:

- **Revised Digital Strategies:** Canada needs a rural, small town and northern digital strategy and infrastructure investment plan. At present, the federal government has a limited rural Internet strategy that, even if implemented in full, will leave most of the rural and remote communities well behind the digital curve.
- **Digital Talent:** Smaller centres lack the local talent needed to develop, install, maintain and capitalize on digital technologies. This could be addressed, in whole or in part, through regional education and training or via distance-delivered services and assistance. Many of the smaller settlements, particularly Indigenous communities, suffer from severe educational and training deficits. Catching up to the training requirements of the digital economy will be expensive and difficult in these circumstances.
- **Commercial Prospects:** On the economic front, rural, northern and Indigenous communities lack the economies of scale to attract commercial attention and typically lack the knowledge of national and international markets to exploit commercial opportunities. There are exceptions – the marketing of Inuit art, for example – but this pattern is deeply entrenched.
- **Investment Capital:** Capitalizing on digital opportunities is proving difficult. Smaller communities have typically lacked ready access to investment capital. The recent growth of Aboriginal Economic Development Corporations has changed this reality for some Indigenous communities, although little of this capital has been mobilized for digital economy purposes.
- **Research Deficit:** The larger Canadian research and development community has not, to date, demonstrated much interest in rural and small-town communities. There is, on a national scale, no systematic attention being paid to the digital divide and to the steps needed to facilitate rural and small community engagement in the digital economy.
- **Jobs and Consumer Costs:** The digital divide has exacerbated the social and economic challenges of rural, small town, Indigenous and northern towns in Canada. The impact on the current and future workforce has been particularly noticeable. Governments and businesses have moved jobs out of smaller centres, relying on digital services

instead. Local retailers have lost a substantial amount of business to e-shopping, a process which provides consumers with lower prices and more choice but which undercuts the viability of small town stores and increases prices for customers who are unable or unwilling to use e-commerce applications.

International Lessons and Insights: The discovery that Canadian digital developments in rural and small-town areas were limited and systematically unimpressive led to refocusing on international comparisons to see if other countries and communities had more substantial and innovative approaches to engagement with the digital economy. This research demonstrated that many rural communities and small towns around the world faced similar challenges. A comparatively small number of communities have made substantial changes in responding to digital realities.

- There are policy-driven developments in other countries (Scandinavia, Japan, and the USA) that provide positive examples of digital adaptation in rural and remote regions. These include rural investment strategies, national commitments to high quality Internet services, and specialized training programs. A small number of regional centres, such as Lulea, Sweden and Skelleftea, Sweden, established high quality digitally-based economies. In Japan, various government programs for rural revitalizations have encouraged small digital companies to relocate – largely for quality of life reasons – to smaller centres.
- The situation in less developed nations (South and Central America) shows the employment, commercial and societal implications of being “left out” of 21st century digital developments. They are, likewise, experiencing digitally-created job losses and commercial dislocations due to e-commerce developments. Training and infrastructure lag well behind national norms. The one notable and important exception is in the tourism sector, where local and international companies have capitalized on e-commerce applications to engage extensively with international consumers.
- In the countries with the most effective rural and small-town development strategies, governments made national commitments to providing uniform infrastructure standards, high quality educational outcomes, and targeted policies for small town and rural economic development.

Inverting Innovation: There is great irony in the digital experiences of rural, remote and small-town Canada. As the 21st century technological revolution unfolds, it is clear that emerging products and services could address many of the challenges facing smaller centres. Businesses, universities, research institutes and governments have been slow to respond, focusing innovation investments on metropolitan areas and major cities. For rural, remote and Indigenous communities to capitalize on available opportunities will require an “inversion” of current innovation strategies. Instead of being passive and much-delayed recipients of southern and urban-focused innovations, northern and remote communities must move to the forefront of small-town focused research and development and implementation strategies that must begin with a commitment to high quality, high-speed Internet services throughout Canada.