



Improving Canada's Digital Advantage

Strategies for Sustainable Prosperity
Consultation Paper Response

INTRODUCTION

Blue Sky Net (BSN) is a non-profit Technology Development Corporation specializing in the implementation of ICT and developing broadband infrastructure across northern Ontario. BSN has facilitated the construction of a number of large ICT networks throughout Northern Ontario by brokering partnerships between the private network builders/owner and the public sector funding agencies. We would argue that the greatest challenges facing Canada in achieving a global “digital advantage” is to insure that the resources necessary for innovation to thrive are in place. This means assembling the best ICT infrastructure and building the skills necessary through education for a digital economy of the future.

Canada’s momentum towards becoming an innovative technology leader is undoubtedly a vital part of our future economic growth, productivity and prosperity. BSN sees that the lower-than average adoption of digital and ICT technologies is often related to the lack of access to services because of insufficient infrastructure in some areas.

Also, Canada has recently become known as followers in technology adoption. Canada advantageously adopts technologies that have already undergone the important research & development processes in the United States, and elsewhere. Therefore, the skills required to develop, innovate and maintain the technologies are almost absent nation-wide, and certainly this is the case in the North. Canada must re-emerge as an innovator and develop technology products/services through a skilled resource base trained and retained in Canada.

INFRASTRUCTURE

It has been determined that Canada recognizes the importance of developing a high-class infrastructure as the primary activity of the digital economy. Investment in Canadian broadband media infrastructures has far exceeded the scope of the U.S investment of rural and remote communities. Canada has been a leader in this case by providing services across a greater geographical distribution per capita than the United States.

In a study commissioned by the Provincial Ministry of Small Business & Consumer Services in 2007, the importance of ICT services and infrastructure in Ontario are highlighted by the figures below:

- In 2007, 60% of all Ontarians made purchases on-line, compared to 22% in 2000. (6.7m)
- Paralleled by On-line purchasing by business has steadily increased in Ontario, from 26% in 2001 to 64% in 2007.
- In 2007, 92% of Ontario companies used the Internet, compared to 68% six years before. 24% increase in six years
- In 2007, 60% of Ontario companies had a website, six years prior only 30% did
- Internet banking by Ontario companies has tripled in the past six years to 59% in 2007.

- In 2007, almost 90% of businesses in Ontario had high-speed access to the Internet, compared to 27% in 2001. Only 10% of Ontario businesses access the Internet via dial-up
- More than two-thirds of Ontario businesses currently see high-speed access as very important to their company's success.
- Half of Ontario companies using dial-up point to a lack of availability of high-speed as the main barrier. That's 5% of businesses are looking for broadband.

Regarding this last point, various levels of governments understand these challenges and have invested into providing broadband to rural and remote communities. Furthermore, this investment proved very beneficial for the competitive advantage of many SME's in the national and global markets. The continued development of a high-class infrastructure will be paramount in the succession of our digital advantage. Where there is Broadband infrastructure, it is generally meeting the needs of the current subscribers, and has been built to undergo speed updates for future demand changes. Because of a small market size and few anchor tenants on ICT networks, further investment is required to increase coverage and improve capacity to meet the needs of new applications. It is critical to continue investing in private/public partnerships to ensure that all Canadians have the ability to use e-services through the use of high-speed internet.

INNOVATION

In general, digital technology offers every industry a greater advantage across all business functions. The reluctance to adopt and implement new technologies in the North is evidence of the lack of necessary skills and insecurity towards technology across many sectors. In order to begin the step towards innovative breakthroughs there needs to be greater investment in the ICT sectors and incentives for technology businesses here in the North. For example, tax benefits for private SME's may be a good incentive to increase any sector relating directly or indirectly to the digital economy. An increase in research and development funding will enable greater innovation of new technologies and build a knowledgeable workforce that will maintain and capitalize on new opportunities within the expanding digital industry. This proposition will allow for an expansion of the ICT business sector and would result in an increase of skilled workers being subjected to the manufacturing and development process, ultimately generating a greater capacity for innovation using digital technologies.

In addition, government and public sector adoption and implementation of these technologies would be the most effective way to encourage private sector approval of the initiative. Public and government (including education and health) sectors must be the leaders at employing highly experimental procedures in order to advocate the new technologies, which will eliminate the risk associated to the uncertainties for the private sectors.

The ease of access to a global marketplace is one of the internet's greatest achievements. The greatest limitations of E-commerce are the inconsistency of laws and regulations across the invisible boundaries. In order to promote Canada as a favourable environment for e-commerce, the regulatory forces need to implement rules to protect the consumers and set a new international standard. Consumer confidence is one of the hardest elements to predict in the world of e-commerce. Therefore, if a system was developed to prorate or certify Canadian online

retailers, a band of authentic retailers can benefit from their authentic status to ensure a higher level assurance in consumers.

INTELLECTUAL CAPITAL

The most critical challenge for skill development in a digital economy is the ever-changing nature of ICT and other digital technologies. Training new digital skills to workers across the economy and providing the necessary training for the current work force is a constant challenge for educators and regulators. An assessment of the skills shortages would support a need to increase the participation and enrolment of under-represented groups in post-secondary education into ICT related programs or combined fields. Women and Internationally Educated Professionals (IEPs) should be encouraged to enter the industry through new marketing and promotion campaigns and incentives to improve retention.

As well as attracting individuals to the industry, the overall investment of the ICT sector should focus on providing state of the art educational facilities to address the demand. This technology economy should continue to innovate a modern way to teach and learn. Teachers have the opportunity to improve conventional methods and offer students digital skills through all levels of the system. By tying in ICT technologies to the different fields of study such as medical and trades, we can instil these skills across various industries with help from the educational system. The way to address the concerns of the digital divide is to assure digital skills training through education. The education system is ultimately responsible for overcoming all barriers of social class, prosperity and growth.