



STRENGTHENING CANADA'S DIGITAL ADVANTAGE

QUARTERLY MONITOR OF CANADA'S DIGITAL ECONOMY

LABOUR MARKET • ECONOMY • TALENT • TECHNOLOGIES

THE INFORMATION AND COMMUNICATIONS TECHNOLOGY COUNCIL (ICTC)

SPRING 2014



RESEARCH BY:



THE INFORMATION AND COMMUNICATIONS TECHNOLOGY COUNCIL (ICTC)

FUNDING PROVIDED BY:



THE GOVERNMENT OF CANADA'S SECTORAL INITIATIVES PROGRAM

© 2014 The Information and Communications Technology Council

All rights reserved. Published 2014.



This study was funded by the Government of Canada's Sectoral Initiatives Program. The authors have undertaken all reasonable efforts to ensure accuracy in compiling the document. The opinions and interpretations in this publication are those of the authors and do not necessarily reflect those of the Government of Canada.

Technical comments regarding this publication can be directed to:

Sharif Faisal
s.faisal@ictc-ctic.ca



EXECUTIVE SUMMARY	IV
CANADA'S DIGITAL ECONOMY	1
OUTPUT AND OUTLOOK	1
PROVINCIAL COMPARISON	2
LABOUR MARKET TRENDS.....	3
EMPLOYMENT LEVEL AND JOBLESSNESS.....	3
PROVINCIAL COMPARISON	4
WOMEN	4
YOUTH.....	5
IMMIGRANTS	6
IN-DEMAND JOBS	7
EMPLOYMENT OUTLOOK.....	7
LATEST POLICY AND INDUSTRY DEVELOPMENTS	8
KEY TAKEAWAYS.....	11
DIGITAL ECONOMY LABOUR FORCE.....	12
ICT SECTOR.....	13
ABOUT ICTC	14

EXECUTIVE SUMMARY

The Information and Communications Technology Council (ICTC) is pleased to present the Spring 2014 edition of *Strengthening Canada's Digital Advantage* (SCDA), exploring broad economic trends with respect to the digital economy labour market, technology developments and adoption, and more.

Several developments and issues have recently captured our attention:

STEADY CONTRIBUTION TO GDP

Following a large (▲\$482 million) increase in the fourth quarter of 2013 (2013 Q4), real GDP produced by the Canadian ICT sector in the first quarter of 2014 (2014 Q1) decreased marginally (▼\$107 million), contributing \$69.5 billion to Canadian GDP. With respect to provincial contribution to this GDP, Ontario produced the biggest share of the ICT output (\$30.9 billion) in 2014 Q1, followed by Quebec (\$14.3 billion), Alberta (\$9.1 billion), and British Columbia (\$8.6 billion).

STRONG SHOWING IN THE LABOUR MARKET

In the [Winter 2014 edition of SCDA](#), we projected the Canadian digital economy labour market to remain robust with a continuing strong labour market in the first quarter of 2014. With the creation of 33,000 new digital economy jobs in the first quarter of 2014, that is exactly how this has been borne out. 812,000 ICT professionals were employed in Canada in 2014 Q1, increasing significantly (▲25,000) compared to 2013 Q4. Employment among non-ICT professionals in the digital economy increased notably in 2014 Q1 to 313,000 (▲8,000) from 305,000 in 2013 Q4.

The overall Canadian labour market experienced a sizable contraction for the second consecutive quarter, as 270,000 (▼1.5%) jobs were lost across all sectors in 2014 Q1. Combined with 190,000 job losses in 2013 Q4, nearly half a million jobs were lost in Canada in the past two quarters. In that same period, 45,000 ICT jobs were created across all sectors, while employment in Canada's digital economy increased by 71,000. Thus, for every seven jobs that were lost in the overall economy, one new job was created in the digital economy. Without significant job creation in the digital economy, the plight of the overall Canadian labour market would have been graver. This is clear evidence that all sectors of the economy employ ICTs to boost productivity and efficiency and ICTs will play a leading role in the turnaround of the overall Canadian labour market and economy.

The majority of the jobs created in the digital economy in 2014 Q1 were in Quebec – Canada's second largest digital economy employer. 199,000 ICT professionals were employed in Quebec in 2014 Q1, increasing significantly (▲20,000) compared to 2013 Q4. In addition, employment among non-ICT professionals working in Quebec's ICT sector also increased notably in 2014 Q1 (▲7,000). Elsewhere, ICT employment increased by 9,000 in Ontario, 3,000 in Saskatchewan, and 1,000 in Alberta, while British Columbia, Manitoba, New Brunswick, and Nova Scotia experienced job losses.

A positive digital economy labour market outlook encouraged many to join or return to the labour force. The jobless rate increased marginally as a result from 2.6% in 2013 Q4 to 3.0% in 2014 Q1. We expect the momentum Canada's digital economy gained in early 2014 to marginally slow down and exhibit a moderate labour market showing in the second quarter of 2014.

IMPROVED WORKFORCE DIVERSITY CRITICAL TO CANADA'S FUTURE

Canada's digital economy will continue to require skilled talent. Attracting and engaging women, recently arrived immigrants, and the talent of tomorrow in this economy continues to be critical. The number of women employed in ICT occupations bounced back in 2014 Q1 following a temporary decline in the previous quarter after three consecutive quarters of growth. Overall, 192,000 women were employed in ICT occupations in 2014 Q1, compared to 621,000 men. As Canada's largest digital economy employer, Ontario is naturally the hub where the highest number of women is employed – 88,000 in 2014 Q1. ICT employment for women in the same quarter was 47,000 in Quebec, 21,000 in Alberta, 19,000 in British Columbia, 4,000 in Manitoba and in Nova Scotia, and 3,000 in New Brunswick and in Saskatchewan.



Employment in ICT occupations among those aged 25 or younger saw a large quarterly decrease (↓9,000) in 2014 Q1, bringing the youth employment level in ICT to 38,000. The jobless rate among those aged 25 or younger in Canada's overall economy is 13.8% at present. In ICT occupations, joblessness among this age group is notably lower and is 3.8%. At present, the five topmost ICT occupational areas in terms of number of youth employed are:

- (1) technical support analysts / technicians
- (2) software / graphical user interface (GUI) developers
- (3) multimedia designers / graphic illustrators
- (4) systems administrators / network technicians
- (5) electronics technicians

Youth employment in these jobs have been notable for quite some time now, especially in systems and multimedia related jobs.

Of the total employed workers in ICT occupations in 2014 Q1, 305,000 (38%) were immigrants – marginally up on the quarter (↑1,000). The proportion of immigrants has been consistent in recent quarters at above a third of the ICT workforce. This is in sharp contrast with the overall economy, where a quarter of all jobs are held by immigrants. This is evidence of strong demand for skilled ICT workers throughout the economy.

IN-DEMAND JOBS

Many jobs have recently been created for GUI developers, software developers, software engineers, software designers, software testers, informatics / business systems analysts, data analytics, database architects/administrators, web / network support technicians and administrators, and systems technicians.

For interested readers, this edition of *SCDA* highlights [current vacancies](#) and allows them to search jobs in their preferred locations.

POLICY AND INDUSTRY DEVELOPMENTS

Several key recent policy and industry developments are highlighted and discussed in the *Latest Policy and Industry Developments* section.

KEY TAKEAWAYS

- ➔ Developing leaders at all levels is vital for business competitiveness in a connected global economy. Given the age profile of Canada's workforce, closing the gap between leadership opportunities and readiness is crucial. Our consultation with digital economy stakeholders reveals that leadership remains a vital human capital concern. Career development programs that can assist the workforce understand today's technological paradigm and thus effectively use the technology to realize the productivity advantage can make a big difference. Employers need to be proactive to up-skill all staff to increase their understanding of the impact and potential of technology. ICTC has many relevant [offerings](#) that would help C-suite and mid-career professionals be more productive and be valuable assets to their employers. The skills they will gain will better enable them to advise their employers for greater innovation, productivity, and success in today's rapidly-changing, technology-enabled workplace.
- ➔ Recent consultation with digital economy stakeholders demonstrates that small and medium enterprises (SMEs) need an injection of capital to grow their operations and are finding it challenging to access the required funding. Investment will also help with adoption of ICTs, highly beneficial for all economic sectors, as competing in today's connected global economy requires a company to utilize technology in order to boost productivity. If all market players – regardless of their size – have access to the same level of financing, it makes the business environment more competitive and conducive to innovation. Mechanisms such as [crowdfunding](#), preferential tax treatment, and tax exemptions for a limited time to ease resource constraints can provide a great boost for SMEs in this regard. The recent [Digital Canada 150 announcement](#) of the Government of Canada's support to help SMEs adopt digital technologies is a strong step in this direction.



- ➔ The Canadian labor market is currently faced with a complex challenge, including joblessness, lack of job security, and skills mismatch in labor market demands. Despite joblessness in Canada's digital economy remaining low, the inclination among today's youth to participate in this vibrant economy remains low. Relatively few youth are pursuing ICT careers and this issue has the potential to snowball into a real crisis in the not-too-distant future. One of the solutions is to make programs available to students at an early age, even as early as in grade 7. Equipping students in grade 7 and onwards with ICT/[STEAM](#) knowledge and skills will make them interested in this area at an early age that will stay with most of them for the rest of their careers.

A FINAL WORD

You can always discuss your additional city- and province-specific research and data requirements with ICTC researchers by [clicking here](#).

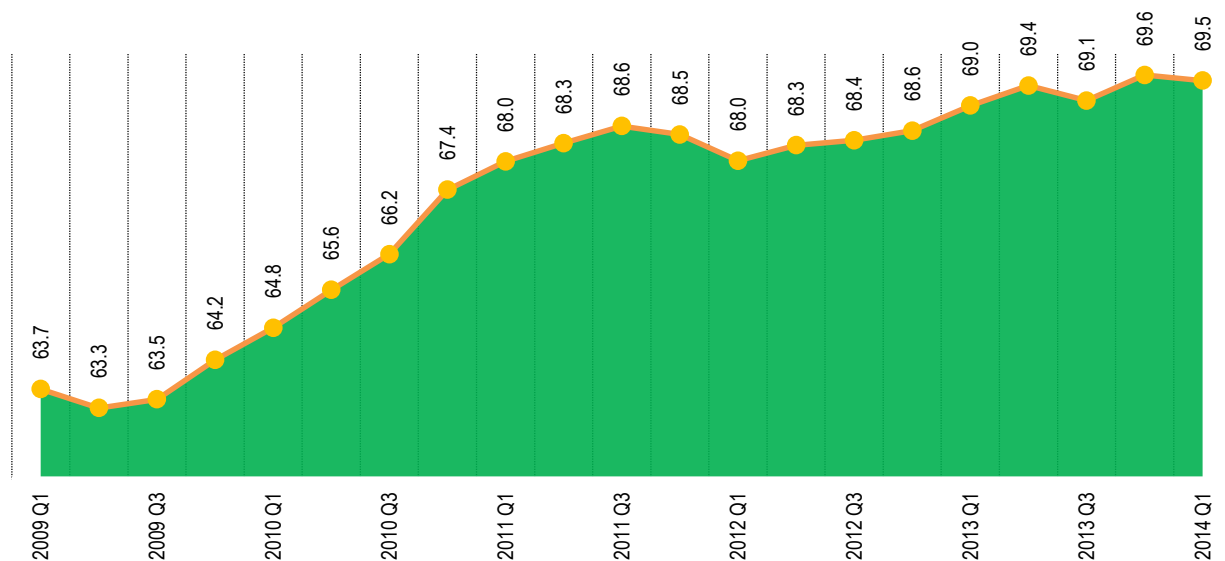
We hope you enjoy reading this issue of *STRENGTHENING CANADA'S DIGITAL ADVANTAGE*.

CANADA'S DIGITAL ECONOMY

OUTPUT AND OUTLOOK

Following a large (▲\$482 million) increase in the fourth quarter of 2013 (2013 Q4), real gross domestic product (GDP) produced by the Canadian ICT sector in the first quarter of 2014 (2014 Q1) decreased marginally (▼\$107 million), contributing \$69.5 billion to Canadian GDP (figure 1).^{1,2} The ICT sector accounted for 4.3% of Canada's total output of \$1,612 billion in 2014 Q1. The emergence and adoption of ICT products and services has created incremental economic opportunities for all economic sectors. ICTs are promising new frontiers for innovation and economic growth that will result in employment creation, efficiency gain, cost reduction, and revenue generation across all sectors. The overall impact of ICTs on the Canadian economy as a result is much greater.

Figure 1. ICT sector GDP (in billion dollars)



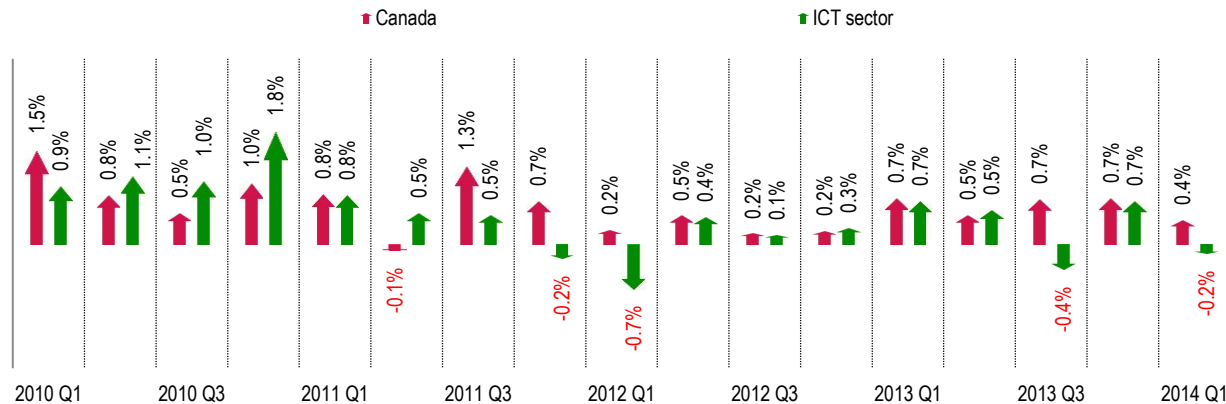
Source: ICTC; Statistics Canada

ICT sector output of \$69.5 billion in 2014 Q1 was \$468 million higher than it was in 2013 Q1 – a year-over-year (YOY) output growth of 0.7%. It also represents a 2.2% increase compared to two years ago (2012 Q1). ICTs have a profound direct and enabling impact on the overall economy. These technologies enable workers and businesses to upgrade existing business strategies, workplaces, and operational procedures to improve productivity. This was a contributing factor to 0.4% (▲) quarterly growth in the overall Canadian economy in the 2014 Q1 (figure 2). Growth in the overall Canadian economy was 2.4% (▲) in the first quarter of 2014 compared to the first quarter in 2013, and 4% (▲) compared to the first quarter in 2012.

¹ In 2007 chained dollars. Chained dollars are real dollar amounts adjusted for inflation.

² GDP figures for 2014 Q1 are calculated using up to February 2014 data, due to lag associated with availability of output data.

Figure 2. Quarterly growth of GDP

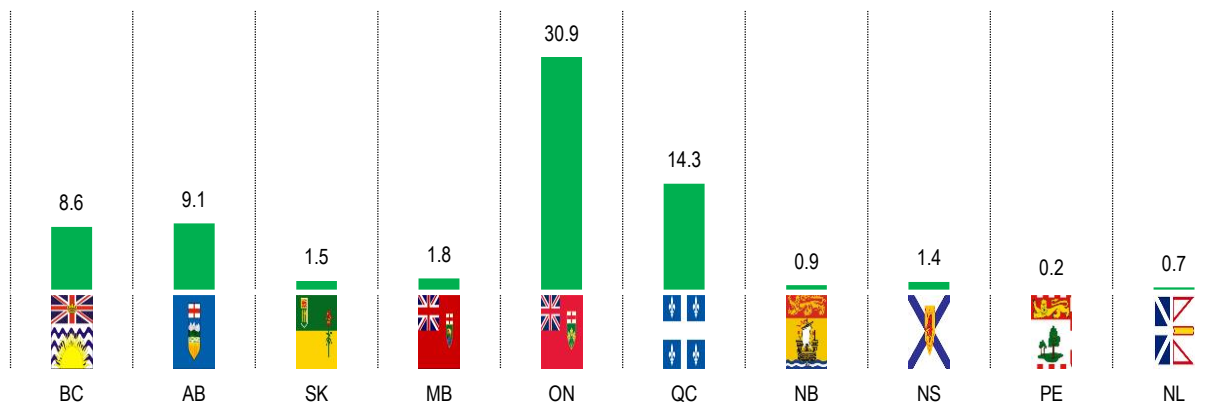


Source: ICTC; Statistics Canada

PROVINCIAL COMPARISON

Ontario is Canada's ICT leader and contributed \$30.9 billion to the total Canadian ICT output in 2014 Q1 (figure 3). In the same period, other notable ICT output contributors were Quebec (\$14.3 billion), Alberta (\$9.1 billion), British Columbia (\$8.6 billion), Manitoba (\$1.8 billion), Saskatchewan (\$1.5 billion), and Nova Scotia (\$1.4 billion).

Figure 3. ICT sector output by province (in billion dollars) – 2014 Q1



Source: ICTC; Statistics Canada

Advanced technological, research, and corporate infrastructure exists in all Canadian provinces. They each offer unique opportunities and the provincial brands need to be built and promoted nationally and internationally around that uniqueness. Each province has its unique attribute that gives it competitive advantage in an increasingly connected global marketplace, be it strong and robust industry verticals and clusters, pool of required skills, policy support, or enabling business environment. Stakeholders need to act in concert and without delay for provincial economies to prosper. It is vital to raise awareness of technology options and benefits to encourage wider adoption and thus generate demand to increase output. Promotional activities need to go beyond highlighting available technology and promote the amazing skills and talent available in the provinces. In that regard, it is also essential to recognize all available talent to improve understanding of the highly competitive global market and address the skills shortage.

LABOUR MARKET TRENDS

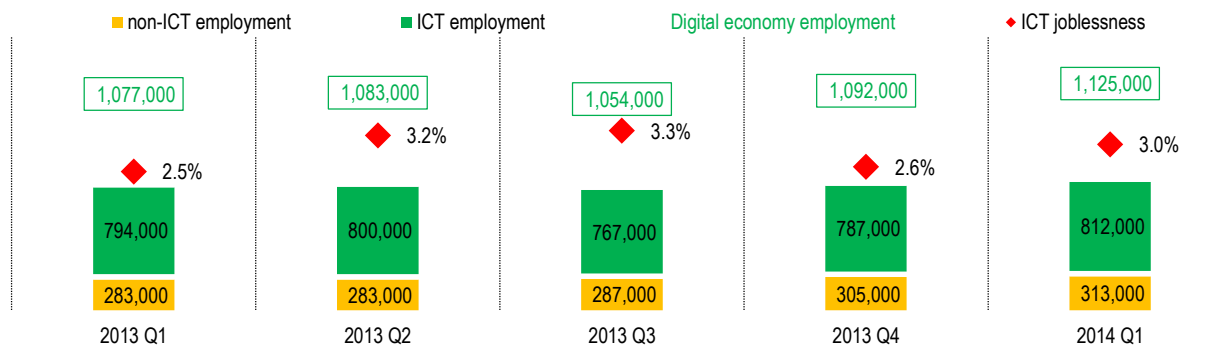
EMPLOYMENT LEVEL AND JOBLESSNESS

812,000 ICT professionals were employed in Canada in 2014 Q1, a significant increase (▲25,000) compared to 2013 Q4 (figure 4). A positive digital economy labour market outlook encouraged many more to join or return to the labour force. The jobless rate increased marginally as a result from 2.6% in 2013 Q4 to 3.0% in 2014 Q1.

Non-ICT professionals working in the ICT sector are key contributors to Canada's digital economy and are included in our overall consideration of this economy. Employment among these professionals increased notably in 2014 Q1 to 313,000 (▲8,000) from 305,000 in 2013 Q4.

The net effect of sizable increases in both ICT and non-ICT employment in Canada's digital economy was that employment in this economy increased by 33,000 (▲) in 2014 Q1 compared to the previous quarter, bringing the employment level in Canada's digital economy to 1,125,000.

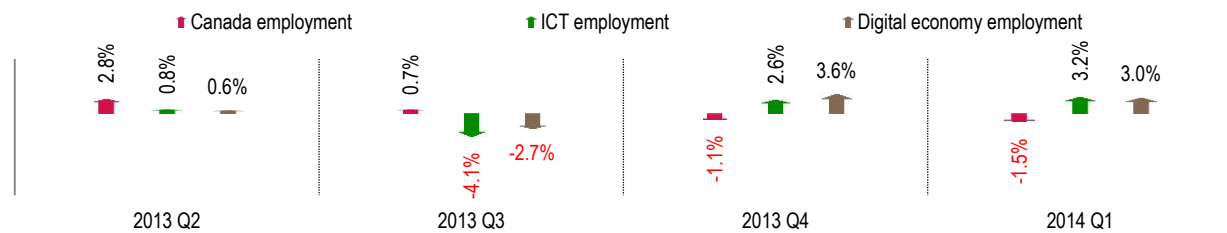
Figure 4. Employment in Canada's digital economy



Source: ICTC; Statistics Canada

The overall Canadian labour market experienced a sizable contraction for the second consecutive quarter, as 270,000 (▼1.5%) jobs were lost across all sectors in 2014 Q1 (figure 5). Combined with 190,000 job losses in 2013 Q4, nearly half a million jobs were lost in Canada in the past two quarters. In that same period, 45,000 ICT jobs were created across all sectors, while employment in Canada's digital economy increased by 71,000. Thus, for every seven jobs that were lost in the overall economy, one new job was created in the digital economy. Without significant job creation in the digital economy, the plight of the overall Canadian labour market would have been graver. This is clear evidence that all sectors of the economy employ ICTs to boost productivity and efficiency and ICTs will play a leading role in the turnaround of the overall Canadian labour market and economy.

Figure 5. Quarterly employment growth



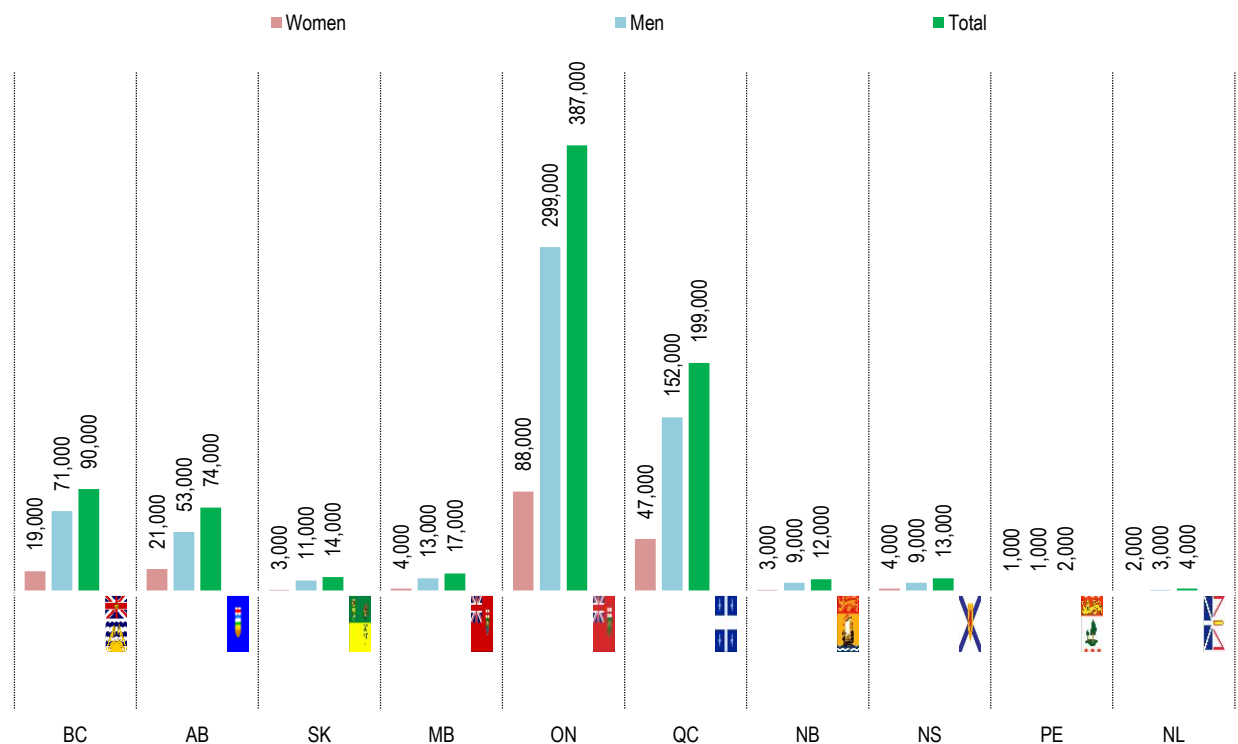
Source: ICTC; Statistics Canada

PROVINCIAL COMPARISON

The majority of the jobs created in the digital economy in 2014 Q1 were in Quebec – Canada’s second largest digital economy employer. 199,000 ICT professionals were employed in Quebec in 2014 Q1, increasing significantly (▲20,000) compared to 2013 Q4 (figure 6). In addition, employment among non-ICT professionals working in Quebec’s ICT sector also increased notably in 2014 Q1 (▲7,000). Elsewhere, ICT employment increased by 9,000 in Ontario, 3,000 in Saskatchewan, and 1,000 in Alberta, while British Columbia, Manitoba, New Brunswick, and Nova Scotia experienced job losses.

With respect to jobs in ICT professions, Ontario is Canada’s largest employer. In 2014 Q1, ICT employment in Ontario was 387,000, followed by 199,000 in Quebec, 90,000 in British Columbia, 74,000 in Alberta, 17,000 in Manitoba, 14,000 in Saskatchewan, 13,000 in Nova Scotia, 12,000 in New Brunswick, 4,000 in Newfoundland & Labrador, and 2,000 in Prince Edward Island (figure 6).

Figure 6. ICT employment by gender and province – 2014 Q1



Source: ICTC; Statistics Canada

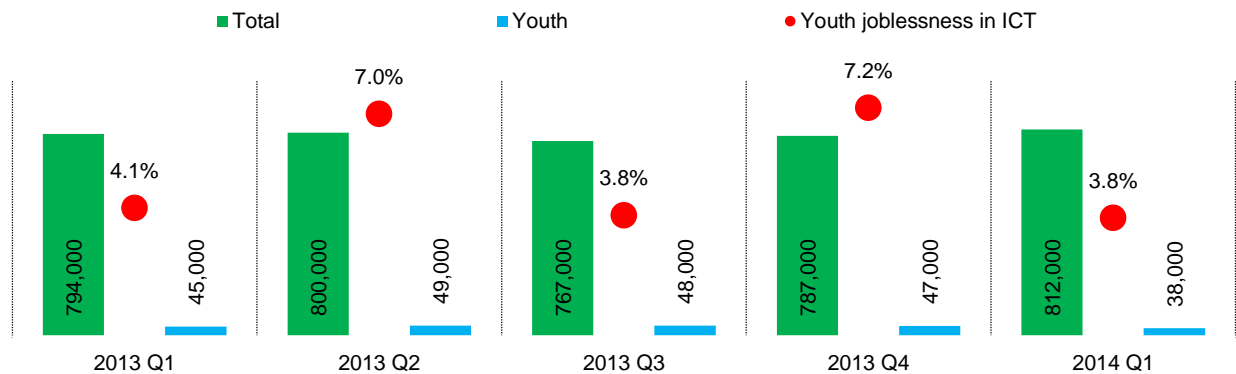
WOMEN

The number of women employed in ICT occupations bounced back in 2014 Q1 following a temporary decline in the previous quarter after three consecutive quarters of growth. Overall, 192,000 women were employed in ICT occupations in 2014 Q1, compared to 621,000 men. As Canada’s largest digital economy employer, Ontario is naturally the hub where the highest number of women is employed – 88,000 in 2014 Q1. ICT employment for women in the same quarter was 47,000 in Quebec, 21,000 in Alberta, 19,000 in British Columbia, 4,000 in Manitoba and in Nova Scotia, and 3,000 in New Brunswick and in Saskatchewan (figure 6).

YOUTH

Employment in ICT occupations among those aged 25 or younger saw a large quarterly decrease (↓9,000) in 2014 Q1, bringing the youth employment level in ICT to 38,000 (figure 7). That level is 16% lower than a year ago in 2013 Q1. Only 5% of all ICT jobs are held by these youth currently, compared to 13% of the jobs held by youth below 25 in the overall economy. The jobless rate among those aged 25 or younger in Canada is 13.8% at present. In ICT occupations, joblessness among this age group is notably lower and is 3.8%.

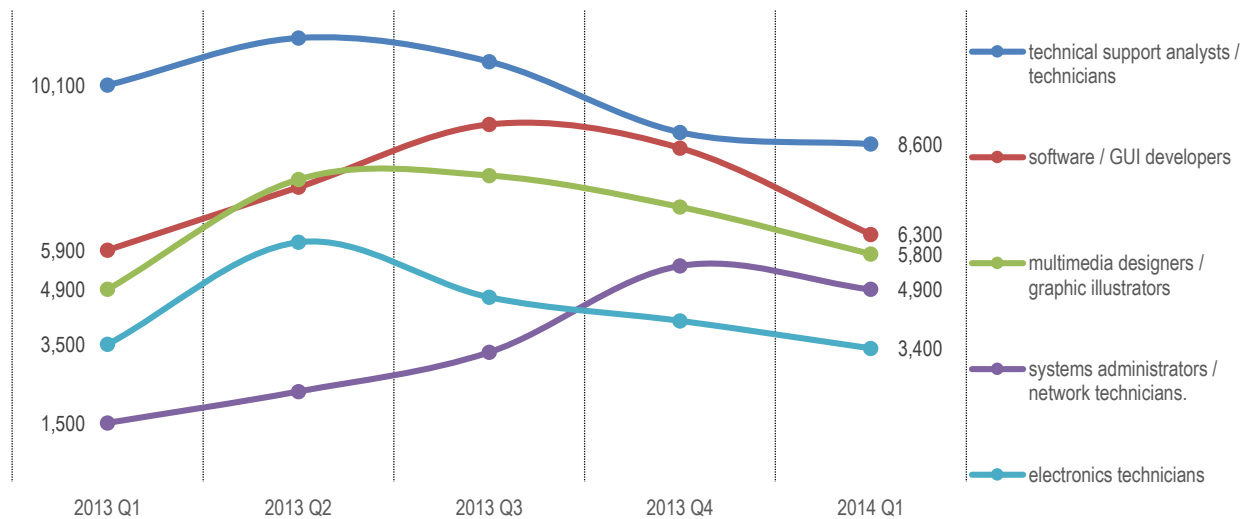
Figure 7. Employment



Source: ICTC; Statistics Canada

Jobs that do not require advanced academic qualifications – systems technician positions, for instance – are easier for Canada's youth to find. At present, the five topmost ICT occupational areas in terms of number of youth employed are: (1) technical support analysts / technicians, (2) software / graphical user interface (GUI) developers, (3) multimedia designers / graphic illustrators, (4) systems administrators / network technicians, and (5) electronics technicians. Youth employment in these jobs have been notable for quite some time now, especially in systems and multimedia related jobs (figure 8).

Figure 8. Top digital economy jobs for youth



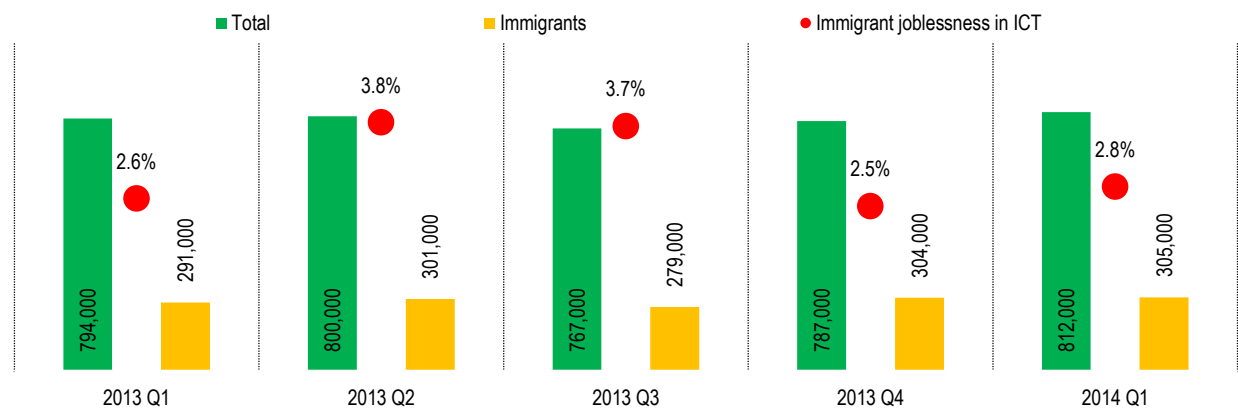
Source: ICTC; Statistics Canada

IMMIGRANTS

Of the total employed workers in ICT occupations in 2014 Q1, 305,000 (38%) were immigrants – marginally up on the quarter (↑1,000) (figure 9). The proportion of immigrants has been consistent in recent quarters at above a third of the ICT workforce. This is in sharp contrast with the overall economy, where a quarter of all jobs are held by immigrants. This is another evidence of strong demand for skilled ICT workers throughout the economy.

The jobless rate among immigrants in Canada is 8% at present. In ICT occupations, joblessness among immigrants is consistently lower and is below 3% at present (figure 9).

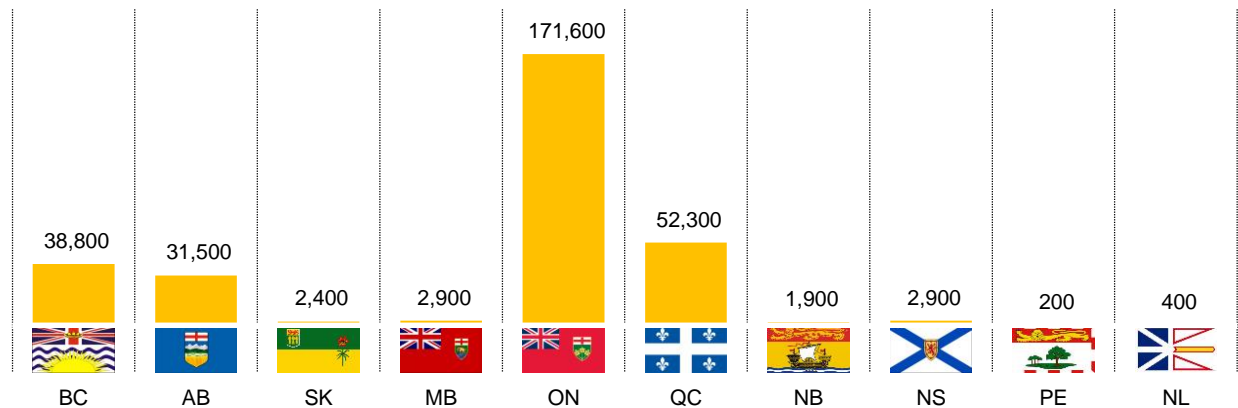
Figure 9. Employment



Source: ICTC; Statistics Canada

305,000 immigrants were employed in ICT occupations in 2014 Q1. As Canada's most popular arrival destination for immigrants and also the largest digital economy employer, Ontario is naturally the hub where the highest number of immigrants are employed – 171,000 in 2014 Q1. By comparison, ICT employment for immigrants in the same quarter was 52,000 in Quebec, 38,000 in British Columbia, 31,000 in Alberta, and nearly or above 2,000 in Manitoba, Nova Scotia, Saskatchewan, and New Brunswick (figure 10).

Figure 10. Immigrant employment by province



Source: ICTC; Statistics Canada



IN-DEMAND JOBS

EMPLOYMENT OUTLOOK

In the [Winter 2014 edition of SCDA](#), we projected the Canadian digital economy labour market would remain robust with a continuing strong labour market in the first quarter of 2014. With the creation of 33,000 new digital economy jobs in the first quarter of 2014, that is exactly how this has been borne out. We expect the momentum Canada's digital economy gained in early 2014 to marginally slow down and exhibit a moderate labour market showing in the second quarter of 2014.

All industrial sectors in Canada use ICT products and services. The need for top ICT talent continues to grow economy-wide as a result. This has expanded career options for ICT professionals, placing competitive pressure on the employers seeking technical ICT talent.

It is a good time to be hunting ICT jobs in Canada. Based on active vacancies posted on job sites, employment growth in mid-2014 is expected to be the highest for the occupations below.

Note: To begin your search, click on a job title below to view current vacancies. You can narrow your search by selecting a job location from the right-hand sidebar in the new browser window.

- ➔ [graphical user interface \(GUI\) developers](#)
- ➔ [software developers](#)
- ➔ [software engineers](#)
- ➔ [software designers](#)
- ➔ [mobile application developers](#)
- ➔ [application programmers](#)
- ➔ [animation programmers](#)
- ➔ [systems architects](#)
- ➔ [electronics engineers](#)
- ➔ [informatics / business systems analysts](#)
- ➔ [IT/ICT analysts](#)
- ➔ [information systems / IT managers](#)
- ➔ [computer / network systems engineers](#)



LATEST POLICY AND INDUSTRY DEVELOPMENTS

Government of Canada's new Digital Canada 150 (DC150) plan

Industry Minister James Moore [shared details](#) of the Government of Canada's new Digital Canada 150 (DC150) plan to ensure Canadians and Canadian businesses are able to take full advantage of the opportunities of the digital age. DC150 is based on five pillars: Connecting Canadians, Protecting Canadians, Economic Opportunities, Digital Government and Canadian Content. ([...more details](#))

Digital Canada 150 will boost digital adoption, jobs: ICTC, CATAAlliance, CIOCAN

Minister Moore's Digital Canada 150 launch Friday is a strong step toward increased technology adoption by Canadian enterprises and government, and is well-aligned with the call made by the Information and Communications Technology Council (ICTC), the CIO Association of Canada (CIOCAN) and CATAAlliance late last year. ([...more details](#))

2014 Canadian Telecom Summit

This Summit titled, Future-proofing Our Place in a Digital World, is taking place June 16-18, 2014 at the Toronto Congress Centre. This Summit reviews where we have been as an industry, provides and understanding of the dynamics that propel it and forecast future trends and expected developments. ([...more details](#)).

Harper Government aims to advance women in Nova Scotia's digital economy

The Honourable Peter MacKay, P.C., Q.C., M.P. for Central Nova, and Minister of Justice and Attorney General of Canada, on behalf of the Honourable Dr. K. Kellie Leitch, Minister of Labour and Minister of Status of Women, today announced Government of Canada support for a project to enhance women's participation in Nova Scotia's digital economy. ([...more details](#))

Canada Mobility Research 2014 – Fuelling the Digital Surge

According to a new Canadian study conducted by Accenture, mobility is the most important digital technology priority for large enterprises. Mobility was ranked among the top two most important priorities by 56 percent of respondents, reflecting its role as an enabler of other technologies. ([...more details](#))

2014 Canadian ICT partnering mission to Hong Kong

The Consulate General of Canada Hong Kong & Macao/Government of Canada, in partnership with the Hong Kong Trade Development Council (HKTDC) and the Hong Kong Economic Trade Office (HKETO) in Canada have invited Canadian companies to join the Canadian ICT Partnering Mission to Hong Kong on April 12 – 17, 2014. The main objective of this mission is to assist Canadian ICT companies to diversify their business to Hong Kong, China mainland and the Asian market. ([...more details](#))

BC workers in mining, forestry and oil and gas combined are less than in high tech

BC Stats report "Profile of the British Columbia High Technology Sector: 2013 Edition" shows 29% more people employed in the province's high tech sector compared to those employed in mining, forestry and oil and gas combined. The high technology sector employs 84,100 while mining, forestry and oil and gas combined employs 65,100. ([...more details](#))

Alberta, Ontario join forces to fund promising research projects

Under a two-year Alberta-Ontario Innovation Program, the provinces jointly fund innovative research projects pairing academic researchers with industry partners spanning several sectors including and information and communications technologies. Projects



are selected if they show strong potential for commercialization and job creation and can yield economic benefits for both provinces. Expressions of interest are now open. Approved projects are to start in January 2015. ([...more details](#))

Saskatchewan doesn't pass legislation on cancelling fixed-term cellphone contracts

Currently, Saskatchewan has no plans to pass legislation or enact laws stopping cellphone companies from charging customers more than \$50 when they cancel fixed term unlike Ontario, Manitoba, Quebec, Nova Scotia and Newfoundland and Labrador which have passed such laws in the last three years. ([...more details](#))

SASKTEL ANNOUNCES 2014 INFRASTRUCTURE INVESTMENTS, OPENS NEW DATA CENTRE

SaskTel will invest approximately \$322 million in overall capital expenditures in 2014, including \$36.8 million for ongoing 4G and 4G LTE wireless network enhancements and will open a new Tier II / III Data Centre in Saskatoon. ([...more details](#))

Canadian providers in new Cisco Intercloud

Cisco Systems Inc. plans to spend US\$1 billion over the next two years building "the world's biggest global Intercloud for hosting applications through a number of international carriers and service providers", including the Allstream division of Manitoba Telecom Services and Toronto-based OnX Managed Services. ([...more details](#))

Montreal's new 'smart system' to track snow clearing part of smart city direction

Montreal plans to introduce a \$6.7-million "smart system" using GPS technology to track snow-clearing operations. Efficient operations, improved billing of subcontractors and fraud prevention are cited as key benefits. ([...more details](#))

COLO-D's new cloud data centre platform in Québec supported by Fonds de solidarité FTQ Investissements croissance and Investissements W2

COLO-D offers server colocation services and services include helping customers set up their high-density infrastructures, from 'a single cabinet to the deployment of many megawatts in dedicated corporate suites' according to COLO-D's chief executive, Patrick David. This firm is key in Quebec's digital economy according to the Fonds de solidarité FTQ and FSIC. ([...more details](#))

New Brunswick trade delegation looks to help Alberta with labour shortage

New Brunswick's trade mission delegates visit Calgary and Edmonton to explore opportunities to connect New Brunswick human resources to Alberta's demand for employment and help Alberta overcome this obstacle to growth. New Brunswick's delegation will represent the professional services sector which includes information technology. ([...more details](#))

Nova Scotia creates new stream of immigration called the Regional Labour Market Demand Stream (RLMD)

The [Regional Labour Market Demand Stream](#) (RLMD), administered as part of the Nova Scotia Nominee Program (NSNP), does not require a job offer in order to apply but does require an intention to pursue [in demand occupations](#). Through the NSNP, Nova Scotia is able to target immigrants with the skills that are most needed throughout the province. The NSNP began receiving applications on March 6, 2014. ([...more details](#))

Innovation job fair attracts Island job seekers

The Atlantic Technology Centre in Charlottetown attracted hundreds of job seekers to their eighth annual innovation technology job fair. Innovation and Technology Association of Prince Edward Island (ITAP) organized the event to showcase 15 IT companies and recruit job seekers for vacant IT positions. ([...more details](#))



Bell Aliant to cover even more of Newfoundland and Labrador with FibreOP

Bell Aliant is announced a \$4.8-million investment to extend FibreOP™ to three additional towns in Newfoundland and Labrador: Harbour Grace, Deer Lake and Stephenville. More than 8,100 homes and businesses will benefit from this latest expansion of FibreOP. ([...more details](#))

Government of Canada Invests in Northern Connectivity - Funding will provide significant network upgrades for the Gwich'in Tribal Council

Minister Aglukkaq announced funding to help the Gwich'in Tribal Council (GTC) upgrade and standardize its Information Technology (IT) environment by building a network that will span four communities in the Gwich'in Settlement Area: Inuvik, Fort McPherson, Tsiigehtchic and Aklavik ([...more details](#))

KEY TAKEAWAYS

- ➔ Developing leaders at all levels is vital for business competitiveness in a connected global economy. Given the age profile of Canada's workforce, closing the gap between leadership opportunities and readiness is crucial. Our consultation with digital economy stakeholders reveals that leadership remains a vital human capital concern. Career development programs that can assist the workforce understand today's technological paradigm and thus effectively use the technology to realize the productivity advantage can make a big difference. Employers need to be proactive to up-skill all staff to increase their understanding of the impact and potential of technology. ICTC has many relevant [offerings](#) that would help C-suite and mid-career professionals be more productive and be valuable assets to their employers. The skills they will gain will better enable them to advise their employers for greater innovation, productivity, and success in today's rapidly-changing, technology-enabled workplace.
- ➔ Recent consultation with digital economy stakeholders demonstrates that small and medium enterprises (SMEs) need an injection of capital to grow their operations and are finding it challenging to access the required funding. Investment will also help with adoption of ICTs, highly beneficial for all economic sectors, as competing in today's connected global economy requires a company to utilize technology in order to boost productivity. If all market players – regardless of their size – have access to the same level of financing, it makes the business environment more competitive and conducive to innovation. Mechanisms such as [crowdfunding](#), preferential tax treatment, and tax exemptions for a limited time to ease resource constraints can provide a great boost for SMEs in this regard. The recent [Digital Canada 150 announcement](#) of the Government of Canada's support to help SMEs adopt digital technologies is a strong step in this direction.
- ➔ The Canadian labor market is currently faced with a complex challenge, including joblessness, lack of job security, and skills mismatch in labor market demands. Despite joblessness in Canada's digital economy remaining low, the inclination among today's youth to participate in this vibrant economy remains low. Relatively few youth are pursuing ICT careers and this issue has the potential to snowball into a real crisis in the not-too-distant future. One of the solutions is to make programs available to students at an early age, even as early as in grade 7. Equipping students in grade 7 and onwards with ICT/[STEAM](#) knowledge and skills will make them interested in this area at an early age that will stay with most of them for the rest of their careers.



DIGITAL ECONOMY LABOUR FORCE

ICTC's labour market research captures critical economic and labour market indicators to inform competitive business and human resource strategy planning, decision-making and career development in ICT, thereby driving the development of a more prosperous Canadian ICT workforce and industry in a global digital economy.

The sum total of workers (workers that are employed in these occupations as well as workers that are currently unemployed, but actively looking for work) in these occupations and workers in all other (non-ICT) occupations in the ICT sector (ICTC's framework of Canada's ICT sector is explained below) is the total digital economy labour force in Canada. The table below summarizes the core ICT occupations:

Index	NOC Code	Occupation Title
1	0131	telecommunication carrier managers
2	0213	computer and information system managers
3	2133	electrical and electronics engineers
4	2147	computer engineers
5	2171	information systems analysts and consultants
6	2172	database analysts and data administrators
7	2173	software engineers
8	2174	computer programmers and interactive media developers
9	2175	web designers and developers
10	2241	electrical and electronics engineering technologists and technicians
11	2281	computer network technicians
12	2282	user support technicians
13	2283	systems testing technicians
14	5224	broadcast technicians
15	5241	graphic designers and illustrators



ICT SECTOR

The table below summarizes the ICT sector:

Index	NAICS Code	ICT Sub-sector
1	3333	Commercial & Service Industry Mach. Manuf.
2	3341	Computer & Peripheral Equip. Manuf.
3	3342	Communications Equip. Manuf.
4	3343	Audio & Video Equip. Manuf.
5	3344	Semiconductor & Other Electronic Component Manuf.
6	3345	Navigational, Medical & Control Instruments Manuf.
7	4173	Computer & Comm. Equip. & Supplies Wholesale distribution
8	5112	Software Publishers
9	5171	Wired Telecommunications Carrier
10	5172	Wired Telecommunications Carrier (except satellite)
11	5174	Satellite Telecommunications
12	5179	Other Telecommunications
13	5182	Data Processing, Hosting, and Related Services
14	5415	Computer Systems Design & Related Serv.
15	8112	Electronic & Precision Equip. Repair & Maintenance



ABOUT ICTC

The Information and Communications Technology Council (ICTC) is a leading not-for-profit national centre of expertise conducting research, policy development, and creating talent solutions for the digital economy.

Technical comments regarding this publication can be directed to:

Sharif Faisal
s.faisal@ictc-ctic.ca

Comments regarding ICTC community and services can be directed to:

Gesine Freund
g.freund@ictc-ctic.ca

Keep in touch with ICTC and explore solutions for the digital economy via:



Website <http://www.ictc-ctic.ca/>



Twitter https://twitter.com/ICTC_CTIC



LinkedIn www.linkedin.com/company/information-and-communications-technology-council



Facebook www.facebook.com/pages/Information-and-Communications-Technology-Council-ICTC



YouTube <http://www.youtube.com/user/DigitalEconomyPulse>