

Jobs in

# INFORMATION & COMMUNICATION TECHNOLOGY



career opportunities series

Cette publication peut aussi être disponible en français sous le titre:  
Emplois dans les technologies de l'information et des communications

*Cover Photos*  
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# **JOBS IN INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT)**

## **INTRODUCTION**

The growth of Information and Communications Technology (ICT) has changed the way we live, work and do business. This has created a large, rapidly growing demand for people who can install, operate and maintain hardware (equipment) and networks and the applications or systems that run them.

The ICT industry is growing and offers exciting career opportunities to suit many interests and backgrounds. There are many new opportunities for trained people being created everyday in the growing ICT sector in the NWT. There is also room for advancement in this field.

Many of these new opportunities have a lot of diversity and flexibility in how and when the work is performed. Jobs are expanding rapidly and this allows more Northerners with ICT education, training and experience, to take advantage of these opportunities.

## **WHAT IS INFORMATION AND COMMUNICATIONS TECHNOLOGY?**

Information Technology (IT) or Information and Communications Technology (ICT) is a broad industry that deals with technology and other aspects of managing and processing information, especially in large organizations.

Information and communications technology includes:

- The hardware (network equipment and personal computers)
- The software (applications and programs) and
- Management of the data and information within these networks and systems

The ICT sector in the NWT is very dynamic. Public, private and non-profit employers employ ICT professionals in the North.

## **WILL THERE BE JOBS IN INFORMATION AND COMMUNICATIONS TECHNOLOGY?**

The Information and Communications Technology sector in the North has grown quickly. Employers in the North are hiring for a variety of ICT positions. These range from desktop support technicians to system analysts and database administrators. Many employers in the North use technology in some form, which has resulted in an increased demand for ICT professionals.

Both government and private sector sources suggest that many Northerners could be employed in rewarding, well-paying jobs if they have the appropriate information technology skills and experience.

There are jobs within the federal, territorial, and municipal governments as well as the private sector for ICT professionals. Examples of private sector employers include: NorthwesTel and NorthwesTel Cable, ARDICOM, Internet service providers, banks and mining companies.

## **WHAT JOBS WILL THERE BE IN INFORMATION AND COMMUNICATIONS TECHNOLOGY?**

There are many types of jobs in the ICT sector and they require varying types of education, skills and experience. Ensuring you have the training, skills and experience that employers are demanding will help you get the job you want and it will also help you advance in your career.

The technology industry is always changing. This means that employers are looking for people who can learn quickly through hands-on experience.

### **NETWORKS**

*Computer Networking Specialist, Computer Systems Technician/Technologist, Network Security Specialist, Network Analyst, Communications Analyst:*

Plans, controls and troubleshoots Local and Wide Area Networks (LANs and WANS). Solves user problems.

### **SALES AND SERVICE**

*Computer Sales/Services Technician, Retail Salesperson & Sales Clerks Technical Sales Representative, Customer Service, Information & Related Clerks, Electronic Service Technician, Office Equipment Technician:*

Sells a range of goods and services and provides technical support and repairs for the goods that are sold.

## CONSULTING

*Chief Information Officer, Information Systems Consultant, Consultant, Informatics Consultancy, IT Consultant:*

Provides strategic advice through years of experience, and expertise in a particular field. Usually hired on a project basis.

## TEACHING

*Applications Trainer, Career and Technology Studies Teacher, College and Other Vocational Instructors, Computer Training Instructor:*

Trains and guides less experienced clients, staff and end users.

## WEBSITES

*Web Application Developer/Designer, Webmaster, Site Programmer, Website Designer:*

Creates web pages for the World Wide Web and for internal networks. Responsible for design, development, maintenance and success of websites.

## ANALYSTS AND PROGRAMMERS

### *Computer Programmer*

Computer programmers create, modify and test the forms, scripts and code that tell computers what to do.

### *Systems Analyst, Computer Analyst, Computer Consultant, Applications Analyst – Computer Systems:*

Uses knowledge and skills to solve computer problems and ensure that computer technology meets the specific needs of an organization.

### *Database Developer/Analyst*

Designs, develops, modifies and maintains database systems to meet client needs.

### *Business Systems Analyst*

Identifies the business needs of clients and stakeholders to help determine solutions to business problems. The Business Analyst role is created to better understand, and define the requirements for ICT systems.

## MULTIMEDIA

### *Multimedia Developer, Multimedia Designer, Multimedia Specialist:*

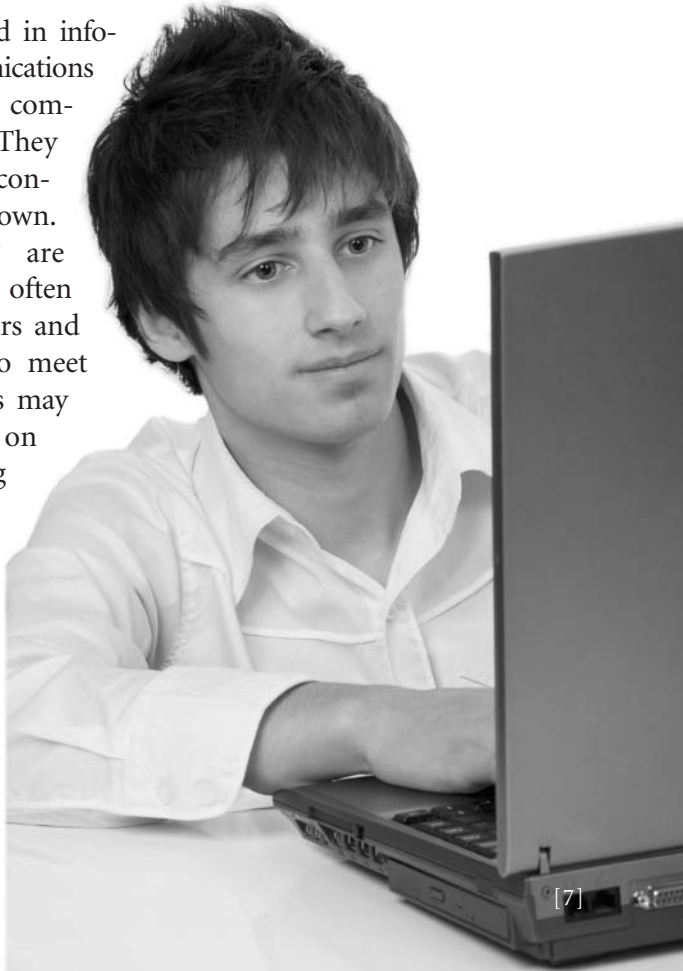
Works with media and draws on the skills of the computer programmer and visual artist to integrate graphics, text, audio and video.

## CREATE YOUR OWN JOB

There are many opportunities in the ICT sector to start your own business. If you have a good business idea, if you have confidence in your abilities and if you are willing to take a risk then starting your own business might be a very good option. The Department of Education, Culture and Employment provides supports such as the Self Employment Option Program to individuals who would like to start a small business. Contact your regional Career Centre or Canada/NWT Service Centre to see if you qualify or for more information on the Self Employment Option Program. For more information on how to start a business in the NWT, you may also go to the Industry, Tourism and Investment (ITI) home page at [www.iti.gov.nt.ca](http://www.iti.gov.nt.ca) and hit the “Starting a Business” button.

## WORKING CONDITIONS

Most people employed in information and communications technology work at a computer work station. They must be able to be contacted if systems go down. Many jobs in ICT are Monday to Friday, but often may require long hours and possibly shift work to meet deadlines. Stress levels may be high (depending on the job). The working conditions are flexible. ICT professionals often work in teams.



An interest in computers, an aptitude for math and science, a problem-solving attitude, analytical and technical skills, a logical approach as well as a desire to learn are some of the skills and attitudes that promote success when pursuing a career in ICT.

As information systems continue to evolve, almost all the jobs in the Information and Communications Technology sector will require you to continue your education and training. Life long learning will be a regular part of the job.

Wages for jobs in this field are competitive. For more information on current wages and demand see NWT Job Futures available at the Career Centre in your community or online at [www.jobfutures.stats.gov.nt.ca](http://www.jobfutures.stats.gov.nt.ca) and talk to people who work in the field.



## **WHERE TO GET TRAINING**

### **AURORA COLLEGE**

Aurora College offers a variety of programs that can help you get a job in the information technology sector. These programs and courses include: Computing and Information Systems. Student Services at Aurora College will explain current course offerings. Although these courses and programs are a good introduction to many jobs in information technology, some jobs will require additional schooling or on-the-job training.

Call your local campus or visit [www.auroracollege.nt.ca](http://www.auroracollege.nt.ca) to find out about current programs and courses being offered.

### **SOUTHERN COLLEGES**

Other courses and programs available at colleges in southern Canada that can lead to jobs in information and communications technology include: Computer Systems Technology, Computer Network Technician, Computer Systems and Electronic Technologist, Database Administrator and Computer Network Administrator. Check with your regional Career Centre for college information or look on the Internet for online calendars.

### **UNIVERSITY PROGRAMS**

For professional jobs in information and communications technology, you need a university degree. There are many Canadian universities that offer professional programs in the following areas: Applied Information Systems Technology, Computer Engineering, Computer Information Systems, Computing Science and Software Engineering. Universities also offer academic programs for professions that are common to most large businesses, such as human resources, industrial and labour relations, business, management and accounting. Programs such as these can also lead to employment in information technology. Check with your regional Career Centre for information on the universities, or look on the Internet for online course calendars.

## **ON-THE-JOB TRAINING**

Some information and communications technology sector businesses offer on-the-job training programs that combine hands-on work experience with industry sponsored courses. If you are interested in finding out about on-the-job training opportunities in the ICT sector, talk to a Career Development Officer at your nearest Career Centre.

## **FINANCIAL ASSISTANCE**

To find out if you qualify for financial help while you study, contact:

### **NWT Student Financial Assistance**

Department of Education, Culture and Employment, GNWT

P.O. Box 1320 Yellowknife, NT X1A 2L9

For further information call: (867) 873-7190

24-Hour Toll-Free Line – Tel.: 1-800-661-0793

*[www.nwtsfa.gov.nt.ca](http://www.nwtsfa.gov.nt.ca)*



## **HOW TO APPLY FOR A JOB IN INFORMATION AND COMMUNICATION TECHNOLOGY**

The most common way of applying for a job is to send your resume and a cover letter to the Government of the NWT and to all of the companies where you would like to work. However, because of the very strong interest in jobs, some employers only accept an electronic application, which can be accessed and completed on the company's website. Make sure you indicate which job or jobs you are interested in, and why you think you are qualified for those jobs.

If you are interested in a career in the ICT sector you should talk to someone who works in the field to see if it is right for you. Look for ICT sector jobs advertised in the newspapers, on websites, on the GNWT website at *www.gov.nt.ca*, or on *www.jobsnorth.ca*.

Your regional Career Centre can help you prepare for your job search and write your resume and cover letter.

## **WORKPLACE RIGHTS AND RESPONSIBILITIES**

Employers and workers have responsibilities to each other. *The Labour Standards Act* sets out the general rules, minimum requirements, and principles of employment standards in the Northwest Territories. The Act covers such areas as hours of work, minimum wage, termination of employment, annual vacation and general holidays, and pregnancy and parental leave. It is up to you to know what rights and responsibilities you have as an employee.

For more information, contact Labour Services at 1 (867) 873-7486 or toll free at 1 (888) 700-5707 or visit the Department of Education, Culture and Employment website at: <http://www.ece.gov.nt.ca/Divisions/Labour/index.htm>

## **CAREER PLANNING**

Career planning is an ongoing process that starts in your youth and continues throughout adulthood. When you think about making changes in your working life, try to make decisions based on your personality, passions, aptitudes, skills and commitments. Also consider what training and education you want and what opportunities are available to you. By finding the best fit between your interests, skills, values and available jobs, you'll have more control over your life and find greater satisfaction in your work.

For more information or assistance with career planning and decision-making, contact your local Career Centre, adult educator, or school counsellor.

Put a lot of effort into your career today to make the most of your work. Always continue creating new opportunities for yourself.

## **NWT CAREER CENTRES, CANADA/NWT SERVICE CENTRE**

Your regional Career Centre can help you to do the following:

- Learn about your skills, interests and values
- Find career, training and employment information
- Search for jobs
- Write resumes
- Apply for jobs
- Prepare and practice for a job interview
- Make a personal career or education plan

The regional Career Centres, Canada/NWT Service Centre are located in the following communities:

Fort Simpson	Deh Cho Hall	(867) 695-7333
Fort Smith	Sweetgrass Building	(867) 872-7425
Hay River	Courthouse Building	(867) 874-5050
Inuvik	Mack Travel Building	(867) 777-7365
Norman Wells	Town Square	(867) 587-7120
Yellowknife	Greenstone Building	(867) 766-5100







Other booklets in the Career Opportunities Series include:

- Jobs in Mining
- Jobs in Oil and Gas
- Jobs in Construction
- Jobs in Health Services
- Jobs in Aviation
- Jobs in Community Government
- Jobs in Diamond Manufacturing
- Jobs in the Service Sector
- Jobs in Tourism
- Jobs in Social Sciences
- Jobs in Arts, Culture and Heritage

ICT