Job Related Education & Training

A personal perspective and the Sector Council initiatives.

A presentation to the CESBA Conference "Charting A New Course" in Toronto, Ontario

by Philémon Paquette
Sector Councils' Secretariat, CLFDB
December 3, 1997

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The Changing Workplace

As recently as the 1960`s almost one-half of all workers in the industrialized countries were involved in making (or helping to make) things.

By the year 2000, however, no developed country will have more than one-sixth or one eighth of its workforce in the traditional roles of making and moving goods.

Already an estimated two-thirds of U.S. employees work in the services sector, and ”knowledge” is becoming our most important “product”.

This calls for different organizations, as well as different kinds of workers.

Peter Drucker, *Post-Capitalist Society*. 1993

In 1991, for the first time ever, companies spent more money on computing and communications gear than the combined monies spent on industrial, mining, farming, and construction equipment.

This spending offers hard proof that we have entered a new era.

The Industrial Age has given way to the Information Age.

Price Pritchett, *New Work Habits for A Radically Changing World*, 1994

ENIAC, commonly thought of as the first modern computer, was built in 1944. It took up more space than an 18-wheeler's tractor trailer, weighed more than 17 Chevrolet Camaros, and consumed 140,000 watts of electricity. ENIAC could executive up to 5,000 basic arithmetic operations per second.

One of [our recent] popular microprocessors, the 486, is built on a tiny piece of silicon about the size of a dime. It weighs less than a packet of Sweet 'N Low, and uses less than 2 watts of electricity. A 486 can execute up to 54,000,000 instructions per second.

The cost of computing power drops roughly 30% every year; and microchips are doubling in performance power every 18 months.

Business Week,
"The Information Revolution"

The economic Lifespan of a new piece of software as the leading edge in its field is now two to six months.

Canadian Advanced Technology Association, 1996

During the early 1900's , 85% of our workers were in agriculture. Now agriculture involves less than 3% of the workforce.

In 1950, 73% of U.S. employees worked in production or manufacturing. Now less than 15% do.

The Department of Labour estimates that by the year 2000 at least 44% of all worker will be in data services – for example, gathering, processing, retrieving, or analyzing information.

Careers come and go. Jobs change. This is nothing new – it's just happening far faster than ever before.

Price Pritchert, *New Work Habits* 1994

Look at the roster of the 100 largest U.S. companies at the beginning of the 1900's. You'll find that only 16 are still in existence.

Then consider FORTUNE magazine's first list (published in 1956) of America's 500 biggest companies. Only 29 out of 100 firms topped that first "Fortune 500" could still be found in the top 100 by 1992.

During the decade of the 1980's, a total of 230 companies — 46% — disappeared from the "Fortune 500".

Obviously, size does not guarantee continued success. Nor does a good reputation.

Price Pritchert, *New Work Habits* ... 1994

Less than half the workforce in the industrial world will be holding conventional full-time jobs in organizations by the beginning of the 21st century. These full-timers or insiders will be the new minority.

Every year more and more people will be self-employed.

Many will work temporary or part-time – sometimes because that's the way they want it, sometimes because that's all that is available.

Charles Handy
The Age of Unreason. 1991(?)

You're in Paris, and you decide to use your American Express card. Getting credit approval involves a 46,000-mile journey over phones and computers.

The job can be completed in 5 seconds.

Peter Large
The Micro Revolution Revisited.

There has been more information produced in he last 30 years than during the previous 5,000.

A weekday edition of The New York Times contains more information than the average person was likely to come across in a lifetime during 17th century England.

The information supply available to us doubles every 5 years.

Richard Saul Wurman
Information Anxiety

Since 1983, the U.S. work world has added 25,000,000 computers. The number of cellular telephone subscribers has jumped from zero in 1983 to 16,000,000 by the end of 1993.

Close to 19,000,000 people now carry pagers, and almost 12,000,000,000 messages were left in voice mailboxes in 1993 alone.

Since 1987, homes and offices have added 10,000,000 fax machines, while e-mail addresses have increased by over 26,000,000.

Communication technology is radically changing the speed, direction, and amount of information flow, even as it alters work roles across all organizations. As a case in point, the number of secretaries is down 521,000 just since 1987.

Rich Tetzeli,
"Surviving Information Overload"
Fortune, July 11, 1994

What Is Required To Succeed?

1. Become a Quick-Change Artist
2. Commit fully to your job
3. Speed Up

4. Accept Ambiguity and Uncertainty
5. Behave Like You're In Business For Yourself
6. Stay In School

7. Hold Yourself Accountable For Outcomes
8. Add Value
9. See Yourself As A Service Centre

10. Manage Your Own Morale
11. Practice *Kaizen*
12. Be A Fixer, Not a Finger-Pointer

13. Alter Your Expectations.

Price Pritchett,
New Work Habits For a Radically Changing World: 13 Ground Rules for Job Success in the Information Age. 1994

SKILLS REQUIRED FOR WORKPLACE 2000

1. Learning to Learn

2. Competence – reading, writing, numeracy

3. Communication – verbal and listening skills

4. Personal Management – self-esteem and self-motivation

5. Adaptability – creative thinking and problem solving skills

6. Group Effectiveness – interpersonal and team skills

7. Influence – skills in organizational effectiveness and leadership (and the importance of a vision.

Joseph H Boyett and Henry P. Conn
Workplace 2000, 1992

WORKPLACE KNOW-HOW

35. COMPETENCIES. Effective workers are those who can productively use:

- resources (can allocate time, money, materials, space, staff)
- interpersonal skills (can work on teams, tech others, serve customers, lead, negotiate, and work well with people from other cultural backgrounds)
- information (can acquire and evaluate data, organize and maintain files, interpret and communicate information, and use computers to process information)
- systems (can understand social, organizational, and technological systems, monitor and correct performance, and design or improve systems)
- technology (can select equipment and tools, apply technology to specific tasks, and maintain and troubleshoot technologies)

36. THE FOUNDATION. Competence requires

- basic skills (reading, writing arithmetic and mathematics, speaking and listening)
- thinking skills (thinking creatively, making decisions, solving problems, seeing things in the mind's eye, knowing how to learn, and reasoning)
- personal qualities (individual responsibility, self-esteem, sociability, self-management, and integrity)

US Dept of Labour Secretary`s Commission on Achieving Necessary Skills as cited in *Beyond Workplace 2000* by Joseph H. Boyett with Jimmie T. Boyett (Dutton, 1995)

EMPLOYABILITY SKILLS PROFILE:
The Critical Skills Required of the Canadian Workforce

Academic Skills: Those skills which provide the basic foundation to get, keep and progress on a job and to achieve the best results. Canadian Employers need a person who can

- Communicate (understand and speak the languages in which business is conducted; listen to understand and learn; read, comprehend and use written materials, including graphs, charts, and displays; write effectively in the languages in which business is conducted)

- Think (think critically and act logically to evaluate situations, solve problems and make decisions; understand and solve problems involving mathematics and use the results; use technology, instruments, tools and information systems effectively; access and apply specialized knowledge from various fields (e.g. skilled trades, technology, physical sciences, arts and social sciences)

- Learn (continue to learn for life)

Personal Management Skills: The combination of skills, attitudes and behaviours required to get, keep and progress on a job and to achieve the best results. Canadian employers need a person who can demonstrate

- Positive Attitudes and Behaviours
- Responsibility
- Adaptability

Teamwork Skills: Those skills needed to work with others on a job and to achieve the best results. Canadian employers need a person who can work with others.

The Conference Board in Canada, January 1997

Work Keys

What Are Sector Councils — And Why Should You Care?

Sector Council Cover page

ORIGIN OF THE SECTORAL PARTNERSHIP INITIATIVE

Evolved from Labour Market Research Carried out by Employment and Immigration's Strategic Policy Planning unit in the Late 1970's and During the 1980's

Federal Government Found, Based on Eight Studies Completed, That Conducting Sector Studies to Identify Strategic Labour Market Imbalances

A. Was an Efficient and Effective Way to Address Labour Market Development Issues and Change Views on Training

B. Brought Key Players Together

C. Awareness Is Curative: Once People Agreed On the Issues, There Was a Willingness to Address Them

D. Financial Assistance to Start up Mechanisms to Address these Labour Market Development Issues tended to prompt start-ups in most cases. Major launch to create sector councils in 1989 - expanded in 1992-3.

CURRENT SECTOR COUNCILS

- Thirty Councils Created to Date of Which Only Two Have Not Continued Past Start-up and One or Two Are Being Added Each Year -- Changing the Training Culture in Canada.

- Some 200 Skills Standards Have Been Established by Industry — Standards Which Are Beginning to Produce Change in Education, Training and Staffing — and in international competitiveness

- Some 200 Trainings Have Been Developed and Are Being Delivered Often in Innovative Ways

- Hundreds of internships and placements have been created smoothing transition from school to work, thousands have been assisted in work transitions.

- the First two Inter-college and Interprovincial Agreements on Transfer of Credits Has Been Struck — a Model for Changing the Way Education Operates

- Education and Training Being Delivered by Colleges and Universities Is Being Audited by Industry to Ensure What Is Being Delivered Meets Industry Requirements

Videos

1. From Gutenberg to Gigabytes
2. SHRC, ITP Program
3. Introduction to the Small Business Owner Operator Competency Guide

Keys from the videos

- Where many specialized jobs used to exist, now people must have sufficient skill to at least understand all jobs to be able to get work done

- In the Software Industry the key skills needed for success are

  - ATTITUDE

  - APTITUDE

  - COMMUNICATIONS

  - TECHNICAL SKILLS

The knowledge component of many jobs has exploded in growth while simple jobs are eliminated (examples):

- The Modern Operator vs the Machinist
- Elimination of support staff
- Elimination of bottom tiers of organizations
- Downsizing has meant no development is offered to new employees, they must come with the ability to add value for the firm to survive.
- The amount of knowledge, attitudes, and aptitudes needed to produce value added cannot be achieved in 30 or 60 days — the new employee must come with those in hand.

- How one gets educated has changed.

HOW SECTOR COUNCILS ARE WORKING WITH EDUCATORS

- They are providing skills profiles and curricula, and have underwritten the development of training.

- Providing career information

- Providing opportunities to learn through high school coop assignments and internships

- Providing certification.

Opportunities and Next Steps

1. As Life Long Learning shifts from personal knowledge to occupational skills and knowledge, what is needed is knowledge and skills acceptable to employers — is the course approved?

2. Continuing education programs should be offering certified courses, i.e. become a source of industry or college or university level courses for transition

3. Provide career information sessions — assist individuals to understand their options

4. Promote Prior Learning Assessment and Recognition — by using it, and in all other ways.

5. Provide assessment and upgrading in the essential or employability skills

6. Negotiate with colleges and universities to ensure transfer of credits

7. Negotiate with colleges and universities and industry to have their staff deliver courses at your institutions

Education should be a continuum because life is a continuum.

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