1. EXECUTIVE SUMMARY

This document comprises the elements of a policy framework\(^1\) for lifelong learning: (1) the policy context, i.e., the problematic situation caused by transformation to a knowledge-based society (KBS) and the problem of conflicting conceptualizations of lifelong learning, (2) the public policy problem from a human resources development (HRD) perspective and the relevant stakeholders, (3) policy options and underlying assumptions, (4) lifelong learning policy goals and objectives, and (5) progress towards policy, and (6) recommendations for next steps. Supporting documentation includes a snapshot of lifelong learning in Canada in fall 1998, with visions for a preferred future (Appendix A) and a full problem diagnostic with elements of the problem, underlying assumptions, sample evidence of the source and nature of the problem, and current policy initiatives (Appendix B).

The context for lifelong learning policy in Canada is characterized by (1) change imposed by the transformation to a knowledge-based society, and (2) conflicting conceptualizations of lifelong learning. The changes inherent in the emerging knowledge-based economy – changes that are positive and/or negative, externally-imposed or internally-imposed, short-term or long-term, anticipated or unanticipated, manageable or chaotic – cause HRD-specific problems for individual Canadians, for communities, and for Canada as a whole. Policy cannot be developed or implemented without the formal adoption of a definition. There is, however, growing recognition that lifelong learning entails formal, non-formal and informal learning opportunities and supports.

\(^1\) Public Policy Analysis. (Dunn, 1981).
From this policy context, the HRD-related public policy problem that lifelong learning policy could address is this:

*Future prosperity and social cohesion for Canada and Canadians depends on making the transition to a knowledge-based society; individuals and communities must adapt, i.e., they must learn and continue learning throughout life by formal, in-formal and non-formal means. However, neither is likely to happen without significant changes to the provision and recognition of learning; and there is no formal HRD policy to ensure either the necessary range of quality lifelong learning opportunities or the necessary supports, particularly for the least advantaged.*

Starting from this problem statement and the two fundamental elements of the policy context, the lifelong learning policy problem may be structured as follows.

1. The transformation to a knowledge-based economy is causing unprecedented change.
2. Externally-imposed, negative, unanticipated change is stressing people and systems.
3. Positive, proactive change is possible, and national leadership is required.
4. Managing and leading HRD change for the knowledge-based economy is a federal responsibility, but efforts have been fragmented and preliminary to date.
5. Unprecedented learning needs result from societal change, requiring much more than the formal education/training system can or should provide.
6. Many people are unable to manage the changes inherent in the knowledge-based society.
7. Lifelong learning opportunities and supports are required by individual Canadians.
8. Initiatives should target the least advantaged, and HRDC programs should be configured in support of lifelong learning.
9. The concept of lifelong learning has been made unwieldy and unproductive by the prevalence of conflicting and competing definitions.
10. It is not possible to develop coherent, coordinated policy without a formally-accepted definition.

For a national lifelong learning policy, the stakeholder groups include the providers – the federal government and its partners -- and the beneficiaries of the policy, primary and secondary. The primary beneficiaries are Canadians of all ages who need equitable access to lifelong learning opportunities and supports for the emerging KBS.
The goals of a lifelong learning policy, in the context of societal change and from an HRD perspective, should be:

1. to manage and lead HRD changes for a knowledge-based society;
2. to assist individuals and institutions to make the changes inherent in the transformation to a knowledge-based society;
3. to assist all Canadians with lifelong learning by ensuring a range of quality LLL opportunities and the necessary supports for individuals and communities;
4. to promote the four pillars of learning for the 21st century: learning to live together, learning to know, learning to do, and learning to be.

Lifelong learning policy options, for HRDC, differ by the definition used, i.e., lifelong learning as:

1. recurrent or continuous formal education;
2. continuous non-formal and informal but “higher order” learning;
3. continuous or recurrent non-formal, informal and formal education and training; or
4. continuous formal, non-formal and informal learning.

These conceptualizations are conflicting; therefore, the different policy options that flow from the four different definitions include:

1. “fixing” the existing education/training system;
2. maintaining the status quo;
3. delivering formal, non-formal and formal lifelong education and training; or
4. ensuring and supporting continuous learning for individuals.

Considerable progress has been made towards a lifelong learning policy, evidenced by, e.g., policies and initiatives supporting basic and adult education (provincial ministries), cultural industries that provide non-formal and informal learning (Heritage Canada), ITC infrastructure (Industry Canada), vast quantities of research (Statistics Canada). Most importantly, HRDC already provides a quantity of programs and policies that support either (1) the provision of opportunity or (2) the support of learners. A great deal of existing research can be marshalled to underpin lifelong learning policy: research on education, training, learning, and the knowledge-based economy.
Recommended next steps include:

1. adopting a formal HRDC definition for lifelong learning as continuous formal, non-formal and informal acquisition of learning;
2. creating inventories of lifelong learning opportunities, lifelong learning supports, HRDC programs that support lifelong learning; then doing gap analysis between what is and what is needed;
3. launching a new research and development program to (1) generate a means to recognize and/or manage non-formal and informal learning, (2) develop a system of incentives for lifelong learning distinct from the benefits of credentials; (3) define and operationalizing “quality” and “universal access” in lifelong learning opportunities and supports from the point of view of the lifelong learners or policy beneficiaries; and (4) set out the characteristics of the emerging Knowledge-Based Society and, particularly, the lifelong learning needs of a KBS; and (5) target resources to those most in need; and
4. framing a lifelong learning policy that reflect measures of adequacy, indicators of success, and the characteristics of a lifelong learning system for the KBE.

A national lifelong learning policy should alleviate the human resources problems presented by the transformation to a knowledge-based society. It should ensure equitable access to both quality lifelong learning opportunities and the necessary supports for all Canadians in the emerging knowledge-based society.
2. THE POLICY CONTEXT

The policy context, or problematic situation, has two essentially defining characteristics: change in the HRD policy environment, and indecision in conceptualizing lifelong learning.

2.1. Changing To A Knowledge-Based Society

Relative to human resources development in Canada, the lifelong learning policy context is characterized by change: the transformation of all established systems with the rapid onset of the Knowledge-based Economy (KBE) in what futurists predicted would be the Information Age.\(^2\) Characteristics of the policy context include, but are not limited to, the following.

1. Changes in the production of goods, services and wealth:
   - greater emphasis on knowledge as a resource and a product, on organic production systems; reduced importance of unskilled labour and mechanistic industrial systems
   - greater emphasis on just-in-time production, constant R&D, and distribution systems, reduced attention to the limitations of tradition and geography
   - more wealth and power to the knowledge-intensive sectors; less to resource-extraction and manufacturing industries

2. Changes in the marketing and consumption of goods and services:
   - greater emphasis on niche markets, choice and customization, and lesser emphasis on mass production and mass marketing
   - greater emphasis on customer information and support, reduced ability to assume customer loyalty or gullibility
   - increased emphasis on accountability and return-on-investment
   - increase involvement of the consumer in decisions about production

\(^2\) E.g., Alvin Toffler in *Powershift* (1990) and *The Third Wave* (1980).
3. Changes in work and the economy:
   ♦ fewer traditional jobs, but many more non-traditional work opportunities and self-directed employment
   ♦ increased likelihood of employment in an SME rather than a mega-enterprise
   ♦ continuous change in skill and knowledge requirements
   ♦ continuous change and innovation in the application of technologies
   ♦ emergence of the Networked Economy of interconnected global enterprises
   ♦ rapid expiry of acquired knowledge and a need for continuous learning
   ♦ bifurcation into knowledge-intensive jobs and “other”

4. Changes in education, training and learning:
   ♦ increased demands for accountability from “the system”
   ♦ increased choice and competition from the private sector and the Internet
   ♦ aging workforce and labour unrest
   ♦ de-coupling of education/training (provision) and learning (acquisition)
   ♦ perceptible shift from labour intensive to capital intensive
   ♦ increased uses for learning technology, but vocal criticism by educators
   ♦ requiring much greater investment by individuals – time, finances, energy
   ♦ financial constraints in the public sector
   ♦ exploring international markets as an export/industry

5. Changes in the socio-political community:
   ♦ the increasing importance of smaller political jurisdictions, e.g., rising power of city-states with population concentrations, and reduced power of nations as satellites make borders irrelevant
   ♦ increasing economic and advantage disparities, within communities and globally
   ♦ increasing bifurcation between the technological elites and everyone else
   ♦ continuous change and increasing danger from environmental degradation, political instability, misguided technological innovation, health risks
   ♦ emerging work and business opportunities that could not have been imagined in the industrial-based economy
6. Changes in the availability and allocation of public resources – time, personnel, finances:
   ♦ decreased financial resources
   ♦ increased numbers of redundant human resources
   ♦ increased demand for knowledge workers
   ♦ loss of internal control to globalization

7. Changes in the global environment that can’t be avoided in Canada:
   ♦ pressing environmental problems that threaten human life
   ♦ increasing human conflict
   ♦ growing disparities between the rich and the poor
   ♦ increasing commitment to sustainable development

Clearly, the policy environment is one of change: change that appears to be unmanaged and unmanageable; change that impacts on Canada’s human resources. Change can be (1) positive and/or negative, (2) externally-imposed or internally-imposed, (3) short-term or long-term, (4) anticipated or unanticipated, (5) manageable or chaotic. It impacts differently on different groups, but any of the five “types” of change can cause problems for individual Canadians, for communities, and for Canada as a whole.

The public policy context from a changing HRD perspective is multi-faceted for the following reasons.

1. Canada’s human resources are not homogenous – they vary in age, ability and aptitude, education and training, socio-economic advantage, gender, ethnicity, locale, language. Therefore, one problem or solution does not necessarily apply to all.

2. Institutions that prepare and support Canada’s human resources are experiencing the same pressures for change that individuals have to deal with. Therefore, the changing opportunities and supports – i.e, the formal education system and other elements of the social safety net and civil society -- for active involvement in the life and work of the community are a part of the problem.

3. The change from an industrial economy to a knowledge-based economy imposes changed learning requirements; while much research has been conducted, individuals don’t feel informed or accommodated through the change.
2.2. Conflicting Definitions Of Lifelong Learning

All elements of a policy -- the policy context, problem, goals and objectives, options and success -- rest on the definition or conceptualization of lifelong learning that is used. The second formidable element of the policy context is that (1) a formal definition has not been adopted by HRDC, and (2) in the absence of a formal definition, there are competing and conflicting conceptualizations.

Exacerbating the problem is that fact that there has always been debate about the definitions of all associated terms: education, training, and learning. For purposes of this paper, learning is "defined" as the acquisition of knowledge, skills and abilities (SKAs); resident in a person or, in some cases, groups of persons; and synonymous with change, i.e., changed levels and types of SKAs. Learning occurs everywhere, in formal and informal settings and through life experiences and social interaction; learning starts before school as a foundation for formal learning and continued self-directed informal learning; learning begins with small tasks which become the building blocks for more complex ones.\(^3\)

Discussion, definitions and policies for lifelong learning in Canada have emerged largely from the fields of adult and continuing education; however, many different definitions are used in Canadian policy and research documents. The various definitions -- and subsequent visions of lifelong learning -- reflect different approaches to learning and different policy environments, for example:

- *Lifelong learning is a continuous process which stimulates and empowers individuals to acquire all the knowledge and skills they will require throughout their lifetimes, and to apply them with confidence and creativity.* (Learning and Literacy Branch of HRDC, 1998)

- *Lifelong learning is a conceptual framework and organizing principle for imagining, planning and implementing reform of the existing education and training systems to enable purposeful and systematic learning opportunities for individuals throughout their lives; to enable individuals to learn wherever, whenever, and in modes appropriate to their learning styles and needs; and to enable use of the total education and training resources (both formal and non-formal sectors) of the nation. It is also a social goal*

\(^3\) *Learning across the life course* (HRDC diagnostic, p. 2)
which envisages a learning society in which the pervasive culture values, facilitates and celebrates learning in all forms. (Office of Learning Technology of HRDC, 1995).

♦ Lifelong learning presupposes the development of a learning society, one where active, ongoing learning of a higher order will be embraced. (APEC - Human Resources Development in Industrial Training, 1997).

♦ Characteristics of lifelong learning (Learning Across the Life Course, HRDC, 16-11-98)

♦ continuation of conscious learning throughout the life course

♦ emphasis on the intrinsic rather than the instrumental value of learning

♦ universal access to learning opportunities, regardless of age, gender, or employment status

♦ recognition of the importance of non-formal learning in diverse settings – at work, at home and in the community

♦ diversity in means and methods of teaching and learning

♦ development of personal characteristics required for subsequent learning, including the motivation and capacity to engage in self-managed, independent learning

♦ not just a right to be exercised but a necessary requirement of participation in the labour market and society

♦ importance of various kinds of partnerships in learning, rather than concentrating chiefly on the role of governments

♦ not easily measured

Terminology and approaches to lifelong learning are greatly influenced by Canada’s active participation in such organizations as UNESCO (United Nations Education, Scientific and Cultural Organization), the OECD (Organization for Economic Co-operation and Development), and other Euro-centric agencies. Some of the definitions that Canada draws from, and sometimes contributes to, are the following.

♦ Successful participation in lifelong learning may be said to display four characteristics: individuals are motivated to learn on a continuous basis; they are equipped with the necessary cognitive and other skills to engage in self-directed learning; they have access to opportunities for learning on a continuing basis; and they have the financial and cultural incentives to participate. (Education Policy Analysis Branch of the OECD, 1998)
Lifelong learning is the development of human potential through a continuously supportive process which stimulates and empowers individuals to acquire all the knowledge, values, skills and understanding they will require throughout their lifetimes and to apply them with confidence, creativity and enjoyment in all roles, circumstances and environments. (European Lifelong Learning Initiative, 1996)

The term “lifelong education and learning” denotes an overall scheme aimed both at restructuring the existing education system and at developing the entire educational potential outside the education system; in such a scheme men and women are the agents of their own education. (UNESCO, 1976)

Typically, Canadian definitions and policies try to incorporate all the definitions. That having been said, there is not a commonly-used or understood definition of the concept of lifelong learning for policy-making and program delivery purposes. Faris (1995) says: the term “lifelong learning” has become a popular and ill-defined concept. To some it means lifelong education, to others, continuing professional education, and to yet others all learning which occurs outside the formal education and training system.

In the absence of a formal and widely-recognized definition of lifelong learning, the following elements are common to most definitions:

- the recognition that learning happens in more than the formal education system, i.e., there is formal, non-formal and informal learning;
- the emerging understanding that learning is continuous need over a person’s lifetime;
- the knowledge that more than formal learning is needed to cope with change in contemporary society;
- the awareness that a fully lifelong learning organization or society is a preferred future state;
- the recognition that both individuals and their communities, local and global, need to be involved in determining lifelong learning needs;
- the notion that lifelong learning is both a product of and driver for the widespread use of information technologies;
- the concept that both individuals and whole societies benefit from lifelong learning.
The debate about definition centres on the following unresolved issues:

1. whether the formal education system is included in lifelong learning, or if the concept refers only to non-formal and informal learning;
2. how to recognize non-formal and informal learning, i.e., whether to accredit them in the formal accreditation process or create a new system to record learning;
3. whether lifelong learning is an investment or an expense, a public good or a business opportunity, an individual responsibility or a right.

The necessary first step in defining and addressing the public policy problem related lifelong learning is to adopt a definition. Various policy options are presented by the various and conflicting definitions of LLL that are being used.

In the absence of a formal policy or definition, lifelong learning is “happening.” A snapshot of LLL in Canada in fall 1998 is set out in Appendix A. It includes the societal context and the need for lifelong learning in Canada; a snapshot of learning opportunities and participation rates; the challenges to change and barriers to lifelong learning; key government policies and strategies; key conceptual initiatives in support of lifelong learning; and visions of a preferred future for lifelong learning in Canada.
3. PUBLIC POLICY PROBLEM

The policy context – the many, many types of changes due to the emergence of the knowledge-based economy complicated by conflicting conceptualizations of lifelong learning -- presents a vast number of public policy problems. However, from the perspective of human resources development in Canada, the public policy problem may be (1) extrapolated from existing priorities and practices of HRDC, e.g., the 1998 Mission Statement; (2) structured in a logical fashion; and (3) related to the policy and program needs of various stakeholders.

3.1. The LLL Policy Problem From HRDC’s Perspective

What is the public policy problem that an HRDC lifelong learning policy could or should solve? The following problem statement has been extrapolated from the HRDC mission statement, with the problem diagnostic is set out in Appendix B.

The nature of Canadian society and the economy are evolving, through technological innovation to a globalized knowledge-based society (KBS); however, individuals and institutions are having difficulty understanding and making changes. Canadians do not fully know or appreciate what opportunities and exigencies exist in the knowledge-based economy, and they do not have equitable access to quality working and learning opportunities in or for a KBS. The citizens of Canada, as individuals, need leadership, assistance and advocacy on their behalf at the national level to adapt and thrive in the emerging knowledge-based society.

Lifelong learning (LLL) is essential to a knowledge-based society; however, Canada does not have an LLL policy to provide either the necessary LLL opportunities or supports to Canadians. Further to that, there is no formal definition on which to develop policy; and conflicting definitions confuse the concepts of education and learning.

To maintain Canada’s prosperity and quality of life, Canadians – Canada’s human resources – must participate fully in the economy, in their communities – local, national and global, and in lifelong learning; however, not all Canadians participate to the extent they want to or need to.
Some individuals and groups of Canadians are not able to participate fully because, for example, they are not able to manage transitions in their lives, be self-reliant, invest in themselves, and/or be adaptable. Some individuals and groups experience systemic barriers to access and equitable participation in the workplace, the community and especially the knowledge-based economy; and their needs are not given priority. Many individual Canadians need help to prepare for, find and keep work; provide security for themselves, their families and communities; and find work in environments that are fair, safe, healthy, stable, cooperative and/or productive.

Canadians do not have equitable access to quality LLL opportunities and/or a full range of human development programs and services. Present programs and policies do not completely reduce inequality, promote growth, support social development and/or support economic development in the workplace and the community. Current HRDC programs and services do not adequately support LLL. To support and implement an LLL culture in Canada, HRDC must become a learning organization to model the principles of lifelong learning in a knowledge-based society.

3.2. Underlying Assumptions With Supporting Evidence

Considerable evidence of the problem, directly related to underlying assumptions or assertions, is set out HRDC in the diagnostic of Nov. 16.

1. Lifelong learning is needed to meet the requirements of the emerging knowledge-base economy (Slides 6 and 7).
2. Lifelong learning is needed because it is a fundamental ingredient of active aging (Slide 8, 34, 40-46).
3. Lifelong learning is needed to achieve better labour market integration (Slide 9, 24-33, 35-39).
4. Lifelong learning is needed to ensure "social cohesion" (Slide 10).
5. Preparation for lifelong learning starts before school and continues throughout the basic education process, and there is room for improvement (Slides 11-23).
6. Learning across the life course in Canada needs improvement (Slides 50-51), i.e.,
   ♦ learning infrastructure for early years might be insufficient;
   ♦ the window of optimal opportunity for development of young children is not fully exploited;
the socio-economic status of individuals influences significantly their learning involvement from birth to adulthood;

the high rate of school leavers and low literacy levels of many high-school graduates raises concerns about future prospects;

many youth, neither working nor learning, are at risk of marginalization;

growing learning costs exacerbates the knowledge/skills gap between individuals and contributes to polarization of earnings, employment and learning opportunities;

low adult literacy levels act as a barrier to further learning;

on-the-job training might not be sufficient;

workplace training is mainly available to highly skilled individuals to the detriment of low skilled individuals who are the most in need;

deterioration of knowledge and skills in the adult population raises the importance of continuous learning, whether formal or informal; and

the availability of time and experience of seniors is not exploited to its full potential.

Further evidence of the source and nature of the problem are:

- the vast numbers of confusing terms and concepts related to the KBE and KBS in the body of HRD literature
- growth of knowledge-based industries and industrial clusters
- increase in numbers of knowledge workers
- increasing numbers of unemployed and unemployable
- significant numbers of adults with literacy problems
- dropping productivity rates
- inequitable access to education and training across Canada
- shortage of training in the workplace
- transitions problems for children, youth, working adults, seniors
- barriers to learning for children and persons with special needs
- increasing rate of "brain drain"
- increasing and continuously changing knowledge and skill requirements in the KBE

In summation, considerable research can be marshalled to provide evidence of the problems associated with the lack of an effective lifelong learning culture or policy in Canada.
3.3. Structuring The Lifelong Learning Policy Problem

Starting with the two fundamental elements of the policy context, and incorporating the elements of the policy problem, the lifelong learning policy problem may be structured as follows.

1. The transformation to a knowledge-based economy is causing unprecedented change.
2. Externally-imposed, negative, unanticipated change is stressing people and systems.
3. Positive, proactive change is possible, and national leadership is required.
4. Managing and leading HRD change for lifelong learning in the KBE is a federal responsibility, and efforts have been fragmented and preliminary to date.
5. Unprecedented learning needs result from societal change, requiring much more than the formal education/training system can or should provide.
6. Many people are unable to manage the changes inherent in the knowledge-based society.
7. Lifelong learning opportunities and supports are required by individual Canadians.
8. Initiatives should target the least advantaged, and HRDC programs should be configured in support of lifelong learning.
9. The concept of lifelong learning has been made unwieldy and unproductive by the prevalence of conflicting and competing definitions.
10. It is not possible to develop coherent, coordinated policy without a formally-accepted definition.

3.4. Stakeholder Identification

In this policy context, the stakeholders fall into two categories: (1) stakeholders who must make and implement effective and efficient public policies; and (2) stakeholders who must be seen to benefit from public policies and programs.

HRD and lifelong learning policy is to be made and implemented in a consistent, coordinated and comprehensive fashion at the federal level by HRDC, in collaboration with all other federal departments and some provincial government ministries. The federal government is mandated to concern itself with the HRD needs of all Canadians, and it must not intervene in the provincial mandate to deliver education and training.
The primary intended beneficiaries of federal and national lifelong learning policy for the KBS are individual Canadians, of all ages and in all parts of Canada. They already benefit from the provision of education and training by the provinces and by commercial agents. They will benefit through the provision of the necessary lifelong learning opportunities and supports for the KBS.

The secondary intended policy beneficiaries are:

♦ employers, through supply of appropriate human resources and HRD systems;
♦ communities, through empowered and informed citizens;
♦ providers of lifelong learning – both formal and non-formal -- through coherent policy and support; and
♦ agencies that help support individuals through transitions.

In summation, the efforts at policy development begin with the gathering of policy relevant information: characteristics of the policy context (Section 2 above), assumption surfacing (in Appendix B), sample evidence of the source and nature of the problem, stakeholder identification, and current policy initiatives (Section 6).
4. LLL POLICY GOALS and OBJECTIVES

The goals and objectives of a lifelong learning policy, in the context of societal change and from an HRD perspective would be:

1. to manage and lead HRD changes for a knowledge-based society by:
   ♦ anticipating / forecasting change, especially externally-imposed, negative and long-term change;
   ♦ managing change, particularly positive, proactive (internally-imposed), long-term change; and
   ♦ mitigating against short-term, negative and chaotic change where possible.

2. to assist individuals and institutions to make the changes inherent in the transformation to a knowledge-based society by:
   ♦ studying the HRD changes and providing informed direction;
   ♦ addressing the barriers to change;
   ♦ leading by modeling change;
   ♦ ensuring HRD programs support LLL.

3. to assist all Canadians with lifelong learning by:
   ♦ ensuring a range of quality LLL opportunities: formal, informal and non-formal;
   ♦ ensuring the necessary supports for individuals, including but not limited to:
     ♦ equitable access to learning opportunities;
     ♦ assurance of quality learning opportunities;
     ♦ preparation for learning (readiness to learn and acquisition of learning skills);
     ♦ accurate, current and accessible information about learning opportunities;
     ♦ accurate, current and accessible information about learning requirements;
     ♦ tools for assessing learning and making learning plans;
     ♦ means of assessing and recognizing all forms of learning;
     ♦ motivation for the acquisition of new skills and knowledge; and
     ♦ incentives for continuous learning.
4. to promote, through national policy, the four learning pillars to education for the 21st century:

♦ learning to live together,
♦ learning to know,
♦ learning to do,
♦ learning to be.

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5. POLICY OPTIONS

HRDC must make a choice from among various policy options. The different policy options based on very different conceptualizations of lifelong learning, e.g., LLL as:

1. recurrent or continuous formal education;
2. continuous non-formal and informal but “higher order” learning;
3. continuous or recurrent non-formal, informal and formal education and training;
4. continuous formal, non-formal and informal learning.

Policy Option 1: Fix the existing education/training system

In the first case – LLL as continuous, recurrent formal education:

♦ provision is by the formal public and commercial systems of education and training;
♦ recognition of learning takes the form of credits and credentials, i.e., completion of courses or programs.

In this case, policy goals would be to ensure formal education / training opportunities and supports to Canadians of all ages. However, the inherent policy implementation problems are that:

♦ the system of provision is not stable: it is changing and will continue to change;
♦ credits and credentials are known to be only proxies for acquired learning;
♦ only learning acquired in the formal system is recognized, with the minimal exception of what PLAR advocates has been able to achieve;
♦ many, many people fall through the gaps, e.g., those who can’t afford formal education / training, children living in poverty, adult with reading difficulties;
♦ the formal provision of education and training is not in the jurisdiction of the federal government.

For this to be viewed as a lifelong learning policy problem, one would have to assume or acknowledge problems with or failures of this system to provide for lifelong learning – and intuitive arguments can be made that this would be “an uphill battle.” This policy option would be very expensive: “fixing” an existing service.
Policy Option 2: Maintain the status quo

In the second case – lifelong learning as non-formal but higher order learning:

♦ provision takes the form of learning on the job, in community and family responsibilities, from books and software programs and mentors;

♦ recognition of learning takes whatever form makes the learner feel good, e.g., a problem solved, a promotion, a personal achievement;

In this case, policy goals would be to ensure access to and supports for “other than” formal education and training, but with specific “higher order” learning objectives. The inherent policy implementation problems are that:

♦ a judgement call has to be made about what constitutes “other than” formal education and training, and “higher order learning” goals;

♦ a two-tiered system of learning is perpetuated, with no form of recognition for “other than” formal education/training.

For this to be viewed as a lifelong learning policy problem, one would have to assume that this situation does not currently exist. In fact, it probably does: hence, no policy problem! The policy action in this option would be to maintain the status quo.

Policy Option 3: Deliver formal, non-formal and informal education

In the third case – lifelong learning as continuous formal, non-formal and informal education and/or training:

♦ provision (learning opportunities) takes the form a coordinated, coherent national system for education and training that accommodates formal, non-formal and informal learning;

♦ recognition reflects significant value on credentialled learning, and little or no value on non-formal learning;

In this case, policy goals would be to ensure a system of delivery of formal, non-formal and/or informal learning opportunities. The inherent policy implementation problems with this are:

♦ delivery of education or learning is not a federal responsibility;

♦ delivery of education and training must respond to customer demand.
For this to be viewed as public policy problem, one would have to assume that this is in fact manageable. The problem with this approach is the focus on delivery systems than the intended policy beneficiaries – the learners.

**Policy Option 4: Ensure and support continuous learning for individuals**

In the fourth case – lifelong learning as continuous formal, non-formal and informal learning:

- provision (learning opportunities) takes the form of almost everything, e.g., schools, universities and colleges; magazines, TV and radio; workplace training, volunteer work experience, mentoring, and self-directed learning through books and software; family and community responsibilities;
- recognition of lifelong learning is the most challenging concept because there are limited means by which to recognize non-formal and in-formal learning; however, methods are emerging from the field of human resources accounting;

In this case, policy goals would be to ensure that all Canadians have the necessary skills to be lifelong learners, a range of lifelong learning opportunities over a lifetime, and the necessary supports to encourage and foster lifelong learning. The inherent policy implementation problems with this are:

- there are limited or no real means to account for and recognize non-formal and informal learning, apart from a head-start towards formal credentials; and a new form of learning recognition and management is needed to make non-formal learning measurable;\(^5\)
- beyond the “recognition” that credentials afford in some industries, e.g., hiring, promotion, there are few real financial and cultural incentives for lifelong learning,\(^6\) and this is a most pressing HRD issue to address.

For this to be viewed as public policy problem, one would have to assume that lifelong learning is able to assist Canada and Canadians to prosper in the knowledge-based economy. The benefit of this option is that it focuses on the beneficiaries of the policy.

Inherent in each policy option is a set of underlying assumptions and policy arguments; however, that is beyond the scope of this paper.

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\(^5\) This is acknowledged by HRDC in the following quotation from the Diagnostic of 16-11-98: “it is difficult to analyze non-formal learning, …HRDC tends to concentrate on activities where learning is organized, structured, conscious, and in some way “measurable.”
6. PROGRESS TOWARDS LIFELONG LEARNING POLICY

In Canada, considerable progress has been made towards a lifelong learning policy, evidenced by, e.g., provincial policies aimed at both basic education (primary, secondary and post-secondary) and adult education; support for cultural industries that provide non-formal and informal learning through Heritage Canada; support for ITC infrastructure in general, and for learning systems in particular, through Industry Canada; vast quantities of research and statistics from the Centre for Education Statistics of Statistics Canada; program initiatives and vast quantities of research at HRDC aimed at supporting learners.

6.1. The Provincial Commitment to Lifelong Learning

Canada’s education ministers are represented at Ministerial Meetings of the Education Committee of the OECD. At a 1996 meeting, education ministers – ostensibly Canada’s provincial education ministers acting through a representative, agreed to the following:

♦ to strengthen the foundations for learning throughout life, by improving access to early childhood education, particularly for disadvantaged children, revitalizing schools and supporting the growth of other formal and non-formal learning arrangements;
♦ to promote coherent links between learning and work, by establishing pathways and bridges that will facilitate more flexible movement between education and training and work, aimed in particular at smoothing the initial transition between the two, and by improving the mechanisms for assessing and recognizing the skills and competencies of individuals – whether they are acquired through formal or non-formal learning;
♦ to rethink the roles and responsibilities of all partners – including governments – who provide opportunities for learning; and
♦ to create incentives for individuals, employers and those who provide education and training to invest more in lifelong learning and to deliver value for money.

An interesting study would be to assess the progress that has been made toward these goals, and to dovetail efforts of the provinces with HRDC plans.

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6 According to the OECD
7 Making Lifelong Learning a Reality for All at http://www.oecd.org//news_and_events/reference/nw96-7a.htm
What follows is a brief inventory of (1) existing HRDC programs that support either the provision of opportunity or the support of learners; (2) research on which to make informed policy decisions.

6.2. HRDC Programs That Support Lifelong Learning

From the knowledge of someone outside of the federal department (me!), it would appear that a very large number of programs and policies could be construed to support lifelong learning in the following rudimentary way.

<table>
<thead>
<tr>
<th>6.2.1. HRDC Support To The Provision Of Learning Opportunities</th>
<th>6.2.2. HRDC Support To The Lifelong Learners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research leading the necessary “intended learning outcomes” information:</td>
<td>Information and tools for decision making:</td>
</tr>
<tr>
<td>♦ the changing nature of work in the knowledge economy (Strategic Policy)</td>
<td>♦ extensive labour market analysis and information, e.g.,</td>
</tr>
<tr>
<td>♦ essential skills of the existing workforce (IALS with Statistics Canada)</td>
<td>♦ WorkInfoNet</td>
</tr>
<tr>
<td>♦ essential skills for knowledge workers</td>
<td>♦ National Job Bank</td>
</tr>
<tr>
<td>♦ National Literacy Secretariat programs</td>
<td>♦ Work Futures</td>
</tr>
<tr>
<td>♦ Essential Skills Research Project</td>
<td>♦ elaborate advice regarding career development options and methods</td>
</tr>
<tr>
<td>♦ entrepreneurial skills for the KBE (Youth Resources Network)</td>
<td>♦ Career Explorer</td>
</tr>
<tr>
<td>♦ science literacy for the KBE (Conference Board with HRDC assistance)</td>
<td>♦ Job Search Strategies</td>
</tr>
<tr>
<td>♦ occupational learning requirements, e.g.,</td>
<td>♦ labour market advice and services, e.g.,</td>
</tr>
<tr>
<td>♦ Sectoral Partnership Initiative</td>
<td>ELE</td>
</tr>
<tr>
<td>♦ Occupational Standards and Information</td>
<td></td>
</tr>
<tr>
<td><strong>HRDC Support To The Provision Of Learning Opportunities</strong></td>
<td><strong>HRDC Support To The Lifelong Learners</strong></td>
</tr>
<tr>
<td>-----------------------------------------------------------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td><strong>Research identifying barriers and challenges to lifelong learning:</strong></td>
<td><strong>Initiatives to support non-formal and informal learning:</strong></td>
</tr>
<tr>
<td>‣ studies by all the equity-seeking groups to identify systemic barriers</td>
<td>‣ efforts to recognize non-formal and informal learning, e.g., PLAR</td>
</tr>
<tr>
<td>‣ industry sectoral studies</td>
<td>‣ access to learning through information and telecommunications technologies, i.e. Office of Learning Technologies</td>
</tr>
<tr>
<td>‣ research to explore the extent of childhood poverty, social problems</td>
<td>‣ designated equity groups policies and programs</td>
</tr>
<tr>
<td>‣ official languages programs to increase social cohesion</td>
<td></td>
</tr>
<tr>
<td>‣ women’s secretariat to study gender-based inequities</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Support to regional economic development and job creation:</strong></td>
</tr>
<tr>
<td><strong>Support to regional economic development and job creation:</strong></td>
<td><strong>Increased access to training and upgrading:</strong></td>
</tr>
<tr>
<td>‣ EI-funded training programs like TAGS</td>
<td>‣ Youth Link, Youth Employment Strategy, Youth Service Canada, Youth Internship Canada</td>
</tr>
<tr>
<td>‣ research into KBE-industries, e.g., in Atlantic Canada</td>
<td>‣ Canada Student Loans</td>
</tr>
<tr>
<td>‣ rural development programs</td>
<td>‣ CanLearn Interactive</td>
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<tr>
<td></td>
<td>‣ Employment Insurance Commission</td>
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<tr>
<td></td>
<td>‣ support for employers and unions</td>
</tr>
<tr>
<td><strong>Knowledge of the status of lifelong learning and training:</strong></td>
<td><strong>Supports to the least advantaged:</strong></td>
</tr>
<tr>
<td>‣ Statistics Canada studies</td>
<td>‣ planned initiatives aimed at children living in poverty, seniors</td>
</tr>
<tr>
<td>‣ evaluation of HRDC programs (EDD)</td>
<td>‣ pilot programs for adults with literacy problems</td>
</tr>
</tbody>
</table>
6.3. What We Know From Existing Research

The following is but a cursory inventory to illustrate that a huge amount of knowledge exists, and to suggest that it should be systematically assembled to support the implementation of HRDC lifelong learning policy. With respect to either lifelong learning opportunities or lifelong learning supports, we know, for example:

1. **regarding formal education and training**, i.e., general education and/or career preparation
   - current student paths and outcome patterns (Student Information Systems, The Centre for Education Statistics, Statistics Canada)
   - conditions of formal education (surveys of principles and teachers by The Centre for Education Statistics, Statistics Canada)
   - quality of some aspects of education (National School Indicators Project, The Centre for Education Statistics and CMEC)
   - the provision of education in Canada in 1998 (Council of Ministers of Education, Canada)
   - private schools and non-traditional providers (The Centre for Education Statistics, Statistics Canada)
   - what becomes of completers (National Graduate Survey and School Leavers Survey, The Centre for Education Statistics, Statistics Canada)
   - the situation for youth in transition (Youth in Transition Study, The Centre for Education Statistics)
   - complete enrolment statistics and attainment levels (Statistics Canada)
   - preparation for employment (e.g, SSHRC study on the employability of arts graduates)\(^8\)

2. **regarding workplace and workforce training**
   - the correlation between education and employment (International Adult Literacy Survey)

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employer’s E/T needs (Survey of Employer Needs, The Centre for Education Statistics, Statistics Canada)

the nature of workplace training in Canada (Employee Training: An International Perspective, HRDC and StatsCan, 1997)

essential or foundational skills, e.g., literacy and communications skills (HRDC Essential Skills Research Project)

critical and generic employability skills such as academic, personal management and teamwork skills (Conference Board of Canada)

science literacy for the world of work, e.g., basic uses of science, technology and mathematics (Conference Board of Canada)

occupational skill requirements for various jobs (Canada’s National Occupational Classification system continuously updated by HRDC)

3. regarding informal and non-formal learning

the involvement adults in continuous learning (Adult Education and Training Survey, Statistics Canada)

access to on-line learning opportunities (Access to the Information Highway: Canadian Households, Statistics Canada, 1996)

4. regarding preparation for learning

the role of the family (National Longitudinal Survey of Children)

ways to enhance learning (e.g., studies that link learning music to improving memory)\(^9\)

the critical role of literacy (e.g., Emergent Literacy, US Office of Education, 199u)

5. work and employment in the knowledge-based economy

industrial changes (e.g., The Knowledge-Based Economy: Shifts in Industrial Output, Industry Canada, 1997)

the nature of the KBE (e.g., Canada and the Knowledge-Based Economy, Industry Canada, 1997)

the changing workplace (e.g., The Changing Workplace and Public Policy, HRDC, 1997)

\(^9\) National Post, Nov. 12, 1998
labour market information (LMI) such as career possibilities and career development tools (e.g., WorkInfoNet and Job Futures)

- a conceptualization of the skills and knowledge required of Knowledge Workers;¹⁰
- the impact of information technology on employment, and jobs in the knowledge-based economy.¹¹

If all that we do know about learning in and for the KBS and KBE was assembled, it would comprise a formidable tool for promoting positive, proactive change.

¹⁰ Skill Profiles for Higher Skill Level Occupations. (Barker, 1997)
7. RECOMMENDATIONS FOR NEXT STEPS

To make further progress in developing a lifelong learning policy for HRDC, the following steps are recommended.

7.1. Adopt an HRDC definition for lifelong learning, one that incorporates, but is not limited to, the following characteristics of lifelong: 12

♦ continuation of conscious learning throughout the life course
♦ emphasis on the intrinsic rather than the instrumental value of learning
♦ universal access to learning opportunities, regardless of age, gender, or employment status
♦ recognition of the importance of non-formal learning in diverse settings – at work, at home and in the community
♦ diversity in means and methods of teaching and learning
♦ development of personal characteristics required for subsequent learning, including the motivation and capacity to engage in self-managed, independent learning
♦ not just a right to be exercised but a necessary requirement of participation in the labour market and society
♦ importance of various kinds of partnerships in learning, rather than concentrating chiefly on the role of governments

7.2. Create inventories and indicators of what is and what is needed, 13 and do gap analysis for:

7.2.1. non-formal and informal lifelong learning opportunities for Canadians of all ages, with a pan-Canadian frame of reference. The formal opportunities are relatively well known. The real task will be to inventory the informal and non-formal, 14 and to do so in a creative and futurist fashion.

7.2.2. supports to lifelong learning, e.g.,
♦ equitable access to learning opportunities;

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12 Learning Across the Life Course (HRDC, 16-11-98)
assurance of quality learning opportunities;
preparation for learning (acquisition of learning skills);
accurate, current and accessible information about learning opportunities;
accurate, current and accessible information about learning requirements;
tools for assessing learning and making learning plans;
means of assessing and recognizing all forms of learning;
motivation for the acquisition of new skills and knowledge; and
incentives for continuous learning.

7.2.3. **HRDC programs and initiatives that support lifelong learning** by either furthering the range and quality of learning opportunities, or providing supports to learners, e.g.,

- serious programs to reduce adult literacy problems
- access for all to the Information Highway
- removal of barriers to learning experienced by equity-seeking groups

7.3. **Begin a new research and development program** to:

7.3.1. generate a means to recognize and/or manage non-formal and informal learning, e.g., electronic learning record or SKP\(^{15}\)

7.3.2. develop a system of incentives for lifelong learning (apart from the benefits of credentials), e.g., human resources accounting\(^{16}\)

7.3.3. define and operationalize “quality” and “universal access” in lifelong learning opportunities and supports from the point of view of the lifelong learners or policy beneficiaries.

7.3.4. target resources to the least advantaged, and remove barriers to lifelong learning

7.3.5. set out, in a very public way, the characteristics of the emerging Knowledge-Based Society and, particularly, the lifelong learning needs of a KBS. There is a large body of literature on this, particularly at Industry Canada. It simply hasn’t filtered out to the public and especially to the education/training system.

7.4. **Frame a policy that reflects**:

7.4.1. **measures of adequacy**, e.g.,

1. *The Kaldor-Hicks criterion*: will the policy action result in a net gain in socioeconomic efficiency and can those who gain compensate the losers?
2. *The Pareto Criterion*: will the policy action result in at least on person being better off and no persons being worse off?
3. *The Rawls Criterion*: will the policy action result is a gain in welfare for the members of society who are worst off?

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\(^{15}\) Information available from FuturEd

\(^{16}\) *Measuring What People Know: Human Capital Accounting for the Knowledge Economy*. (OECD, 1996)
7.4.2. **indicators of success**, beginning with, but not limited to, e.g.,\(^{17}\)
- broad availability and utilization of lifelong learning opportunities
- social and economic improvements in the lives of individuals
- greater social cohesion brought about through inclusion in learning
- improved performance of children who are ready to learn
- enhanced ability of workers to adapt to new job demands and opportunities
- reduced incidence of problems in making major life transitions
- better cooperation among providers, including federal and provincial governments

7.4.3. **characteristics of a lifelong learning system for the KBE**, e.g.,\(^{18}\)

1. a holistic and integrated system of inputs and resources, processes and practices, outputs and outcomes, with feedback loops and accountability mechanisms – rather than the fragmented elements that currently exist;
2. an open system, responding to the feedback loop and integrated with the external environment – rather than the existing closed “system;”
3. individualized, using current knowledge of how people learn and enabling technologies – rather than bureaucratic;
4. responsive to emerging and changing learning demands – rather prescriptive about what needs to be learned;
5. cyclical, with continuous and open entrance and exit – rather than linear, age-based and time-based;
6. learner-enabling, i.e., ensuring that all learners are successful to the degree that they can be – rather than learner-screening;
7. a global focus, taking into account the elements of global citizenship and international work opportunities – in addition to being a local concern;
8. promoting change – rather than maintaining the status quo;
9. an effective, efficient, innovative and accountable industry – rather than a costly, labour-intensive social agency;
10. consumer-oriented – rather than provider-based decision-making;
11. learning-focused – rather than credential or completion-focused.

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\(^{17}\) *Towards An HRDC Strategy For Lifelong Learning* (Sussex Circle, 1998).

\(^{18}\) *Learning Systems In The Future For The Future.* (Barker, 1996).
8. CONCLUSION

A national lifelong learning policy should alleviate the human resources problems presented by the transformation to a knowledge-based society. It should ensure equitable access to both quality lifelong learning opportunities and the necessary supports for all Canadians in the emerging knowledge-based society. In fact, HRDC has various policy options to consider. One is to try to “fix” the existing education and training system to accommodate lifelong learning; a second is to do nothing and maintain the status quo; a third is to let the provinces, through their formal education ministries, take responsibility; and a fourth is to develop a rationale, coherent, futuristic approach to lifelong learning in the future for the future. In the absence of a formal lifelong learning policy, informal policy works more to maintain the status quo than to promote change.

Developing and implementing lifelong learning policy should be easy for HRDC, as many current programs and services support lifelong learning. A partial inventory of existing programs and services already reveals considerable HRDC provision of both lifelong learning opportunities and supports. There is no need for HRDC to get caught up in disputes with the provinces over the delivery of formal education and training. The provinces can worry about delivery; the federal government should concern itself with the customers or beneficiaries of lifelong learning products and services. It is a “jurisdiction-free zone.”
Canadians are the process of developing formal lifelong learning policies and strategies in the context of human resources and economic development, and global citizenship. While Canadians have always been lifelong learners, until recently, formal education and training institutions and practices have marginalized non-formal and informal learning. In the context of rapid societal change, however, emerging policies and strategies have placed an increasing emphasis on continuous learning for the individual and collective good of Canadians. There is increasing recognition that learning takes place in all environments – the workplace, the community, the home and family, leisure activities and travel. The concept of lifelong learning is now used to encompass new approaches to teaching and learning, to the assessment and recognition of learning, to the management of learning, to the learning requirements of the knowledge-based economy and to quality assurance in education and learning.

Lifelong learning is linked to such closely allied concepts as adult education, continuing professional education, labour force development, learning cultures and learning organizations. As well, lifelong learning in Canada is linked to such emerging practices as PLAR (Prior Learning Assessment and Recognition, i.e., the assessment of non-formal, experiential learning), electronic labour market information and learning records, applications of learning technologies and the Information Highway, and education for sustainable development.

### 1.1. Defining “Lifelong Learning”

Discussion, definitions and policies for lifelong learning in Canada have emerged largely from the fields of adult and continuing education; however, many different definitions are used in Canadian policy and research documents. The various definitions – and subsequent visions of
lifelong learning -- reflect different approaches to learning and different policy environments, for example:

♦ *Lifelong learning is a continuous process which stimulates and empowers individuals to acquire all the knowledge and skills they will require throughout their lifetimes, and to apply them with confidence and creativity.* (Learning and Literacy Branch of HRDC, 1998)

♦ *Lifelong learning is a conceptual framework and organizing principle for imagining, planning and implementing reform of the existing education and training systems to enable purposeful and systematic learning opportunities for individuals throughout their lives; to enable individuals to learn wherever, whenever, and in modes appropriate to their learning styles and needs; and to enable use of the total education and training resources (both formal and non-formal sectors) of the nation. It is also a social goal which envisages a learning society in which the pervasive culture values, facilitates and celebrates learning in all forms.* (Office of Learning Technology of HRDC, 1995).

♦ *Lifelong learning presupposes the development of a learning society, one where active, ongoing learning of a higher order will be embraced.* (APEC - Human Resources Development in Industrial Training, 1997)

In the absence of a formal and widely-recognized definition of lifelong learning, the following elements are common to most definitions:

♦ the recognition that learning happens in more than the formal education system, i.e., there is formal, non-formal and informal learning;

♦ the emerging understanding that learning is continuous need over a person’s lifetime;

♦ the knowledge that more than formal learning is needed to cope with change in contemporary society;

♦ the awareness that a fully lifelong learning organization or society is a preferred future state;

♦ the recognition that both individuals and their communities, local and global, need to be involved in determining lifelong learning needs;

♦ the notion that lifelong learning is both a product of and driver for the widespread use of information technologies;

♦ the concept that both individuals and whole societies benefit from lifelong learning.
1.2. The Societal Context of Lifelong Learning In Canada

The context for the emerging lifelong learning policy in Canada is characterized by:

♦ a rich heritage of informal learning through, e.g., public radio and public libraries, and non-formal learning in the workplace, the family and the community;
♦ an extensive formal education system providing for pre-school through to post-graduate education, and a well-established bureaucracy to support it;
♦ considerable innovation in learning technologies and distance education, particularly reflective of Canada's immense geography and leadership in telecommunications;
♦ a pervasive social value on schooling and a concurrent recognition that higher education typically results in financial rewards;
♦ considerable debate about the future of Canada, both as a political unit and as a social community with a tradition of providing for the least advantaged;
♦ unavoidable involvement in the global economy and the pressure to remain competitive at all cost;
♦ the need for new knowledge-based products and services for market.

The need for lifelong or continuous learning in Canada is not, however, any different than anywhere else on the globe. Significant social, political, environmental and economic change has affected all aspects of Canadian life; and there are profound changes in the nature of work, the workforce, family and community life, for example:

♦ There are fewer jobs in the goods sector -- natural resources, manufacturing and construction, and more jobs in the service sector.
♦ More and more women are entering the workforce.
♦ Self-employment, at home or elsewhere, is a growing trend.
♦ Many Canadians are in need of retraining, as most new jobs created in Canada are short-term.

Learning to deal with these workplace trends requires individual change – changed skills, knowledge and attitudes. The only positive way to deal with externally-imposed change is to learn to deal with it, perhaps to even manage or shape it.

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19 Hatton's theory of lifelong learning, presented to the 1997 APEC HURDIT conference, can be found at http://www.apec-hurdit.org/lifelong-learning-book/hatton.html - top
1.3. A Snapshot of Lifelong Learning Opportunities and Participation Rates

Lifelong learning opportunities, particularly formal and non-formal, exist in abundance in Canada. Educational institutions are the main provider of adult education and training activities. In 1993, they accounted for one third (34%) of all providers followed by employers and commercial suppliers who share two fifths of the market each (21% and 20%, respectively).

A survey of partners and interest groups on human resource development in Canada in 1990\textsuperscript{20} identified more than 200 principal partners and interest groups involved, in varying degrees, with education, training or the promotion of learning in Canada. Over 40 federal government agencies, departments, crown corporations, boards and councils at that time had either broad or specific interest in learning or training. Over 150 non-governmental organizations (NGOs) were involved in seeking project or core funding for their activities as well as the opportunity to influence government policies and programs. In 1998, this will be considerably higher with the proliferation of private and commercial training agencies and services.

For the many reasons listed above, and others, Canadians are avid lifelong learners. The report Adult Education and Training in Canada (Statistics Canada, 1994)\textsuperscript{21} reveals the following.

♦ In 1993, 5.8 million or 28% of Canadians aged 17 and over participated in adult education or training activities. This represents a one percentage point increase from 1991. On average, Canadian adult learners participated in 1.6 activities or 103 hours per individual.

♦ The majority of adult learners (71%) participated in job-related education or training. Among these learners, 70% received employer sponsorship.

♦ Higher education stimulates adults to participate in the learning process. The participation rate for adults with high school education or less was 17% compared to 50% for those with a university degree.

♦ In general adult learners are not studying to obtain a degree or diploma. They are involved in part-time courses to acquire specific skills. Half of the learning was concentrated in courses concerning management/administration, engineering/applied science technologies, and trades and health professions.

\textsuperscript{20} Reported by Faris (1995), found at \url{http://olt-bta.hrdc-drhc.gc.ca/info/online/part1.html} - can
\textsuperscript{21} Available in full at \url{http://www.hrdc-drhc.gc.ca/arb/research/rsctoc_e.html}
Statistics Canada reported in 1992 that, when asked, the percentage of Canadians who had read in the previous week, a newspaper - 82.8 %, a magazine - 61.8%, and/or a book - 43.9%.

In a variety of ways, Canadians spend their leisure and work time and resources on learning opportunities.

1.4. Challenges To Change And Barriers To Lifelong Learning

In the development of a lifelong learning culture in Canada, many existing practices must be challenged and changed, particularly but not only in the systems that deliver formal learning opportunities. These changes and challenges, for systems and for individuals, form barriers to the development of a lifelong learning culture in Canada.

The most obvious barrier to implementation of a lifelong learning society is the lack of a formal policy. One of the reasons why Canada does not yet have a formal lifelong learning policy is that it is defined differently by various and competing interests. More importantly, in Canada’s system of governmental levels with discrete responsibilities, it is impossible to have a national or federal policy on lifelong education and/or training. And there is no mechanism to create the same lifelong learning policy in each and every province/territory. The solution appears to be a national lifelong learning policy that reflects the needs of individual Canadians as lifelong learners and not the needs of the providers of lifelong learning opportunities.

A second major barrier is the prevailing view of learning as a formal education activity. The existing system of delivering formal learning opportunities is highly entrenched in legislation and custom, and forces with vested interests make change very difficult. The terms “learning” and “education” have been used synonymously until recently; however, clear distinctions are now made between, for example, (1) education, training, and learning; (2) education/training systems and learning systems; (3) formal, non-formal and in-formal learning. These distinctions are important because, for most, the “creation” of lifelong learning culture or society requires:

- de-coupling education/training and learning, with the former being a formal system of provision and the latter being the attributes (acquired or changed levels of skill, knowledge and attitudes) of the recipient, the learner;
- finding means to assess and recognize or valuate all forms of learning, whether they are acquired in formal education/training systems (e.g., publicly- and privately-funded education systems, K-12 through to advanced post-secondary), non-formal training and
learning environments (e.g., paid and/or volunteer work, family and community responsibilities), or informal learning environments (e.g., travel, reading).

The concept of lifelong learning essentially changes the focus from the providers and venues of learning opportunity – whether formal, non-formal or informal – to learners themselves. The established formal public education and training system does not welcome this change of focus, as it raises questions about their exclusive right to grant credentials.

A related barrier to the implementation of lifelong learning in Canada is the glacial pace of education reform in Canada. A study by Faris (1994) concluded that Canada lags far behind other developed economies in making the necessary changes to remain competitive in the global knowledge-based economy, i.e., it has yet to establish national education/training goals and objectives, a lifelong learning strategy, or national curriculum and standards. Canada has made rudimentary gains in developing closer links between education and the economy, and in encouraging greater system efficiency through use of learning technologies. Without a national office of education and training, education reforms are piecemeal and highly resisted.

A different set of barriers to lifelong learning exist for learners themselves. A study by the Canadian Association for Adult Education (1982) found that individuals faced considerable obstacles presented by high fees and insufficient personal finances, institutional practices like scheduling and residency requirements, attitudinal barriers like lack of self-confidence, physical and geographic barriers to access, lack of support systems and lack of information. A study by the Women’s Reference Group to the Canadian Labour Force Development Board (1994) reinforced these conclusions, grouping barriers around access and entry, finances and other necessary supports, and the quality of the training. The main barriers to job-related training needs reported by employees were the lack of time and money, followed by inconvenient time or location, absence of the desired course or program and lack of employer support.

The societal context for lifelong learning is two-sided: necessity on one side, and opportunity on the other. Both create challenges for Canada. With the emergence of the Knowledge-based Economy, we have begun to understand that learning must keep pace with other societal change, and that appropriate learning opportunities must be provided, together with the

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23 Adult Education and Training in Canada (Statistics Canada, 1994).
necessary supports. The role of a lifelong learning policy and of governments is to (1) remove those barriers to lifelong learning that can be removed; (2) circumvent those which can’t be removed; and (3) work to change attitudes that perpetuate barriers.

1.5. Key Government Policies And Strategies

In Canada, the 13 provincial and territorial governments have jurisdictional responsibility for the formal provision of education and training. The federal government has distinct and different responsibilities; and the promotion of lifelong learning in embedded in strategies and policies related to national human resource development (HRD), social, economic and cultural development. In essence, the federal government acts on behalf of individual Canadians who access various systems and services. Clearly, provincial and federal governmental policies and strategies will be different, but they often partner on initiatives that they can agree to. For example, the Pan-Canadian Indicators Project\textsuperscript{24} is a joint federal-provincial initiative to measure the success of parts of Canada’s education system.

Canada’s federal government can concern itself with “learning” as an individual activity through, e.g., financial supports for post-secondary students and unemployed workers, research related to occupational skill standards, and innovation specific to the knowledge-based economy; and with the provision of informal and non-formal learning through, e.g., public radio and TV, and support to libraries, the electronic telecommunications infrastructure, and industry sectoral councils. The federal government works with the provinces and other partners to build a stronger Social Union,\textsuperscript{25} and to particularly assist children, workers, persons with disabilities, aboriginal peoples, and seniors to live lives as full participants in Canadian society.

In the context of lifelong learning, HRD and social development, key initiatives are undertaken by Human Resources Development Canada (HRDC). With a stated commitment to promoting human development, the objectives of HRDC are to help Canadians prepare for, find, and keep work; assist Canadians in their efforts to provide security for themselves and their families; promote a fair, safe, healthy, stable, cooperative, and productive work environment that

\textsuperscript{24} Information on this and other pan-Canadian education and training initiatives is available at http://www.cmec.ca/

\textsuperscript{25} Taken from a key HRDC document, typically alludes to addressing the issues of child poverty, child development, and employment opportunities for disadvantaged and/or equity-seeking groups.
contributes to the social and economic well-being of all Canadians. Within these objectives, and aimed at promoting lifelong learning, HRDC specifically provides the following:

- targeted programs for designated equity-seeking groups: women, visible minorities, aboriginal peoples and persons with disabilities;
- special initiatives for children, e.g., through family literacy initiatives, and youth, e.g., through youth employment strategies;
- considerable research and information specific to employment, occupational and career development;
- a particular focus on literacy and other aspects of lifelong learning to help Canadian adjust to a changing society, and to equip them to participate fully in the knowledge-based economy;
- efforts to promote a strong workplace learning culture, e.g., in partnership with labour organizations, and community-based learning networks;
- initiatives to understand and utilize the Internet and electronic communications to increase learning opportunities and access to information;
- support to youth and adult students to further their education and/or access post-secondary education; and
- research and innovation in the assessment and recognition of prior learning (PLAR), essential skills for knowledge work, and quality assurance in education/training.

HRDC is discussing the development of formal lifelong learning policy to incorporate and reflect its mission to enable Canadians to participate fully in the workplace and the community through an integrated, lifecycle approach to human development, with a particular focus on those at risk. It will implement preventative measures that enable Canadians to identify risks and opportunities earlier, make better choices, contribute to economic growth, and gain access to resources; and community-capacity building and new partnerships.

As a partner in building a culture of lifelong learning, the federal government established the Office of Learning Technologies (OLT) within HRDC to raise awareness about the opportunities, challenges and benefits of technology-based learning and act as a catalyst for innovation in the area of learning and skills development enabled by technologies. The OLT's vision is to: contribute to the development of a lifelong learning culture in Canada and its mission is to work
with partners to expand innovative learning opportunities through technologies. Among its key activities is help to develop policies and strategies to guide the evolution and application of learning technologies in ways that best meet lifelong learning needs.

Another key initiative in support of lifelong learning is the development and promotion of the “Information Highway” by Industry Canada and its partners. Industry Canada assembled an Advisory Council on the Information Highway (IHAC), of which one working group focused on learning and training in the context of electronic and telecommunications. It’s vision that lifelong learning become a defining feature of Canadian society has served as a key design element of the Internet or electronic information highway. The report of the Learning and Training Working Group concluded that new technologies increase access to learning systems and support services for learners, regardless of their geographic location, socio-economic status, gender, racial origin or disabling condition; and that electronic communications will enable more cost-effective, productive and relevant education and training through increased opportunities for home-based learning, training options closer to home, training in the workplace, customized training services to industry, just-in-time learning, and school-to-work-to-school transitions. It is expected at global telecommunication systems and information technology will enhance access through international recognition of vocational and academic credentials, data banks for student records and program information, advisory and counseling services, and distance delivery of world-class learning resources.

Industry Canada has subsequently developed many telecommunications-based initiatives in support of lifelong learning, e.g., SchoolNet, the Computers for Schools Program, the National Graduate Register and the Community Access Program. Industry Canada also supports private training enterprise as a growth industry.

Most provincial governments make the distinction between childhood/youth education, post-secondary education, and adult/continuing education, and make provisions for them all. Growing interest in lifelong learning is reflected in emerging policies and long-standing practices that support continuous, non-formal learning in community centres and groups.

27 More information is available at http://olt-bta.hrdc-drhc.gc.ca/info/online/highway.html
29 Information on all these programs is available at http://www.strategis.ic.gc.ca/
1.6. Key Conceptual Initiatives in Support of Lifelong Learning

1.6.1. New approaches to teaching and learning

Traditional approaches to teaching and learning, as reflected by the formal education system, have set teachers up as experts and students recipients of their wisdom. New approaches to teaching and learning in Canada include, but are not limited to (1) the development of learning organizations and (2) innovative applications of learning technologies.

First, within Canada, businesses and public institutions are exhorted to become learning organizations, and to model lifelong learning by:

♦ investing in their own future through the education and training of all their people;
♦ creating opportunities for, and encouraging, all their people in all their functions to fulfil their human potential as employees, members, professionals or students of the organization; as ambassadors of the organization to its customers, clients, audiences and suppliers; as citizens of the wider society in which the organization exists; and as human beings with the needs to realize their own capabilities;
♦ integrating work and learning, inspires all their people to seek quality, excellence and continuous improvement in both;
♦ empowering ALL their people to broaden their horizons in harmony with their own preferred learning styles;
♦ applying up-to-date open and distance delivery technologies appropriately to create broader and more varied learning opportunities;
♦ learning and relearning constantly in order to remain innovative, inventive, invigorating and in business.

HRDC itself – as evidenced by the 1998 HRDC Mission -- is attempting to become a learning organization in its mission to promote a lifelong learning culture in Canada, leading by example.

Secondly, Canada’s extensive telecommunications infrastructure and expertise in education is evidence of new approaches to teaching and learning. Canada has a premier reputation for blending the fields of distance education, learning technologies, and telecommunications – all in aide of lifelong learning, social cohesion, and economic development. Information and

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30 The principles of the learning organization as enunciated at the First Global Conference on Lifelong Learning, in December, 1994 in Rome.
resources to apply learning technologies in support of lifelong learning are available from, e.g.,
the Office of Learning Technologies, the Knowledge Connection Corporation, and Industry
Canada in general, and the IHAC report and Technology-based Training in the Workforce in
particular.

1.6.2. New approaches to the assessment and recognition of learning

Traditional approaches to assessment of learning have been post-teaching and norm-based;
traditional recognition of learning has been credits and credentials from formal education
providers and certifying bodies. New approaches to the assessment and recognition of learning
are reflected in the development of Prior Learning Assessment and Recognition (PLAR) and the
Skills and Knowledge Profile (SKP), work led at the national level by the Canadian Labour Force
Development Board (CLFDB) and FuturEd.

In Canada PLA/PLAR is being promoted, by the CLFDB and others, as a means by which to
improve education/training, support lifelong learning, and increase access to employment.
PLAR is defined as a process of identifying and recognizing what a person knows and can do;
the emphasis is on learning rather than experience, and all learning is valued. PLAR is being
developed, largely within post-secondary education, all across Canada. The CLFDB has
undertaken substantial work leading to a stated PLAR policy and national implementation
strategy, recommended national quality standards, and a method of quality assurance. The
intention is to ensure that Canada’s workforce development system in general, and PLAR
processes and practices in particular, are effective, efficient and equitable. The CLFDB has
identified six public policy objectives that quality PLAR practices and services can positively
address: the efficient use of resources, the development of a lifelong learning culture, the
advancement of social justice, co-ordinated and coherent labour force development, education
and training reform, and the management of change.

31 Home page is at http://olt-bta.hrdc-drhc.gc.ca/
32 Information on The Lifelong Learning on the Information Highway Series is available at
http://www.kcc.ca/project/library/p1004.html
33 Home page is at strategis.ic.gc.ca
34 Located at http://strategis.ic.gc.ca/SSG/
35 Available at http://www.strategis.ic.gc.ca/cgi-bin/
36 General information is available at http://www.plar.com/
37 Information is available at http://www.plar.com/
Work on PLAR has led to preliminary work on a learning record called a Skills and Knowledge Profile (SKP). The CLFDB Working Group has defined the Skills and Knowledge Profile (SKP) as a tool by which an individual can express his/her formal and non-formal learning in a standardized and credible manner to a wide variety of stakeholders for personal, economic and education/training development. Hypothetically, the systematic application of a such an SKP can increase educational productivity, enhance economic productivity and resource utilization, and enable individuals to maintain balance and a sense of self in turbulent times. In speculating about this hypothesis, and creating recommended SKP quality standards, the Working Group and FuturEd concluded that a learning record can be a mechanism by which individuals inventory or catalogue their acquired learning for purposes of skill upgrading, credential acquisition, and lifelong learning. An SKP may be a means by which to account for lifelong learning, translating the individual's learning achievements from, for example, a workshop, a good book, or a university course into a list of skills and knowledge that can be continuously added to. It can become a tool to promote transitions from school to work to school to work throughout a lifetime. The development of a learning record is related to innovations in human resources accounting and human capital management, part of the new approaches to management of learning discussed below.

### 1.6.3. New approaches to the management of learning

Traditional approaches to the management of learning have focused on the provision of education and training as preparation for life and work. New approaches to the management of ongoing learning include, but are not limited to such diverse initiatives as (1) macro-management of labour exchange and labour market planning, particularly in electronic form, (2) gender-based analysis, (3) a lifecycle or key life transitions approach to learning, and (4) human resources accounting.

First, considerable research and innovation has been directed at efforts to manage labour exchange, improve labour market planning and enhance labour force efficiency through the management of human resources. Specifically, this mean better understanding the requirement of jobs, the skill banks and proficiencies of potential workers, and matching processes such as the Electronic Labour Exchange where employers and employees can be matched up via the

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38 For more information see Miller (1996).
Internet. There are increasingly vast amounts of critical and timely information by which individuals can identify their own skills gaps, work and training opportunities to fill those gaps, and efficient uses of their lifelong learning resources.

A second important, but totally different, initiative in support of lifelong learning is a move towards gender-based policy analysis. All aspects of lifelong learning – identified needs and barriers, opportunities and incentives – need to be assessed with gender in mind. Canada’s federal office of the Status of Women Canada has provided an exemplary model by which to ensure, through its Gender-Based Analysis model, that women and men are treated equitably but differently in the design and delivery of lifelong learning opportunities and supports.

A third innovation in the management of learning is growing interest in implementing lifelong learning according to a life cycle or key life transitions model. Among other things, this puts the focus on the learner rather than on the provider of learning opportunity, and allows for coherent intervention strategies. Considerable study of done in this area by the Strategic Policy branch of HRDC. Two of the visions of lifelong learning incorporate this thinking about the timing and the nature of lifelong learning requirements.

The fourth, but no means last, innovation is human capital accounting. It has been recognized that investment in human resources, or non-tangible assets, is crucial to productivity, growth, and individual participation in the knowledge-based economy. Within the context of lifelong learning, HRD experts have recommended the following public policy priorities: providing basic skills education; supporting efficient human capital markets through information, counseling, and standard-setting; promoting linkages within the education sector, between that sector, labour markets, and industry technology diffusion policies; and addressing inequitable access. They conclude that the focus for human resource development policies should be to ensure basic skill foundation is strong, to provide infrastructure, and to ensure that workers and employers get the financial incentives right. It is this last point that generates controversy and innovation, i.e., an effort to understand and use financial incentives for lifelong learning.

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40 Available at [http://www.swc-cfc.gc.ca/publish/gbabro-e.html](http://www.swc-cfc.gc.ca/publish/gbabro-e.html)
42 Taken from Priorities for Government at [http://www.hrdc-drhc.gc.ca/stratpol/arb/research/change/prior_e.html](http://www.hrdc-drhc.gc.ca/stratpol/arb/research/change/prior_e.html)
1.6.4. Learning requirements of the knowledge-based economy

Learning requirements for Canada’s industrial- and resource-based economy are different from those required for the post-industrial knowledge-based economy. Increasingly, Canadians are aware that our formal education and training systems do a good job of preparing individuals for an industrial-based economy/society that no longer exists, and do an inadequate job of preparing individuals for the knowledge-based economy; and the current forms of recognition of learning – credits and credentials – may be meaningless in both a lifelong learning culture and a knowledge-based economy. To resolve this, considerable effort is being put into understanding the new learning requirements:

♦ essential or foundational skills, i.e., literacy, numeracy, communications;\(^{43}\)
♦ critical and generic employability skills such as academic, personal management and teamwork skills\(^{44}\) identified by the Conference Board of Canada;
♦ science literacy for the world of work, e.g., basic uses of science, technology and mathematics\(^{45}\) identified by the Conference Board of Canada;
♦ occupational skill requirements for various jobs, i.e., Canada’s National Occupational Classification system continuously updated by HRDC;
♦ labour market information (LMI) such as career possibilities and career development tools, through, e.g., WorkInfoNet\(^{46}\) and Job Futures;\(^{47}\)
♦ competencies of highly-skilled workers in the IT industry;\(^{48}\)
♦ a conceptualization of the skills and knowledge required of Knowledge Workers.\(^{49}\)

All of these efforts serve to target training and skills upgrading for individuals and industries, specify education and training outcomes for providers, and make lifelong learning resource expenditures more effective and efficient.

\(^{44}\) From the Conference Board of Canada: [http://www2.conferenceboard.ca/nbec/pdf/emskill.pdf](http://www2.conferenceboard.ca/nbec/pdf/emskill.pdf)
\(^{45}\) From the Conference Board of Canada: [http://www2.conferenceboard.ca/nbec/pdf/literacy.pdf](http://www2.conferenceboard.ca/nbec/pdf/literacy.pdf)
\(^{46}\) LMI information is available from WorkInfoNet at [http://www.workinfonet.ca/cwn/english/main.html](http://www.workinfonet.ca/cwn/english/main.html)
\(^{49}\) Skill Profiles for Higher Skill Level Occupations. (Barker, 1997)
1.6.5. Quality assurance in lifelong learning

Not surprisingly, with all the lifelong learning initiatives and opportunities, the issue of quality assurance has surfaced and been addressed to some degree. The following learning-related quality assurance measures are in place.

♦ Recommended national training standards, developed by the CLFDB (1995), describe all the elements of quality career and professional training programs and services from a consumer's point of view.\(^{50}\) Recommended national quality standards for PLAR\(^ {51}\) and for LMI\(^ {52}\) have also been developed by the CLFDB and its labour market partners.

♦ CanLearn Interactive, an omnibus education and training web site, will house a number of consumer's guides to learning products and services that are being developed by FuturEd.\(^ {53}\)

♦ Industry Canada and its partners have developed guidelines for learning software, or “learnware.”

As the cost of lifelong learning opportunities rise, there is a greater demand for accountability and return-on-investment.

1.7. Visions Of A Preferred Future For Lifelong Learning

There are many, many different views of a preferred future for lifelong learning, but they seldom contradict each other. They are simply created from different perspectives.

One vision of a preferred future for lifelong learning is based on the concept of developing and maximizing human potential and human resources within the context of economic and social development. Human Resources Development Canada (HRDC), Canada’s largest federal department, has this responsibility; and it has begun to articulate it’s view of lifelong learning within its Vision Statement.\(^ {54}\) In the context of enabling Canadians to participate fully in the workplace and the community and to manage transitions in their lives, HRDC views lifelong learning as a measure that helps Canadians to identify risks and opportunities earlier, make better choices, contribute to economic growth and gain access to the right government and

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\(^{50}\) The national training standards are at [http://www.clfdb.ca/english/library/train_e.pdf](http://www.clfdb.ca/english/library/train_e.pdf)

\(^{51}\) PLAR quality standards are found at [http://www.plar.com/about_plar/what_should_it_look_like.html](http://www.plar.com/about_plar/what_should_it_look_like.html)


community resources. To promote lifelong learning and other preventative measures, HRDC plans to take a leadership role, forge partnerships and build community capacity. HRDC and others in Canada would like to achieve a “lifelong learning society” in which all citizens have (1) equitable access to lifelong learning opportunities that are effective and efficient, and (2) the preparation and propensity to be self-motivated or self-directed learners. The achievement of this vision would see that all Canadians – from those in need of basic skills to those making advances in knowledge work – would have the preparation for and access to appropriate lifelong learning to maximize their human resources potential.

A second vision of a preferred future for lifelong learning is based on the concept of developing and maximizing applications of technology to improve access to information and to lifelong learning. This is the purview largely of Industry Canada (IC), the federal ministry responsible for business development in general and the high tech sector in particular. It convened an Information Highway Advisory Council, of which the Learning and Training Working Group's vision\(^55\) suggested that Canada needs to provide all Canadians with access to the widest possible variety of learning opportunities so that they succeed in the rapidly changing knowledge economy. The concluded that, to reach this goal, Canada must realize the full learning and training potential of the Information Highway. In their vision of a preferred future, the emphasis would be on a Canada that embraces learning as a central feature of its national identity, on the provision of learning opportunities for every Canadian, and on making available a wide variety of different learning techniques, as well as subject matter, geared to the individual learner. The Working Group was convinced that providing the widest possible variety of learning opportunities to Canadians of all ages would revolutionize lifelong learning in Canada. They asserted that learning and training should be a major focus for applications developed on the Information Highway, and that public and corporate policy was needed to create, reinforce and implement these applications.

A third vision of lifelong learning is based on the perceived benefits of lifelong learning to all individuals and the need for grass-roots implementation. Advocates for lifelong learning as members of the Canadian Link to Lifelong Learning (CLLL) have as a vision statement: lifelong learning is an integral part of every Canadian’s life. At the 1996 Lyceum of the CLLL,\(^56\) proponents of lifelong learning concluded that a national advocate for lifelong was required, and

\(^{55}\) Available in full at [http://csg.uwaterloo.ca/~industry/part-2e.htm](http://csg.uwaterloo.ca/~industry/part-2e.htm)
\(^{56}\) More information is found at [http://www.connect.ab.ca/~tllink/strategy.htm](http://www.connect.ab.ca/~tllink/strategy.htm)
they called for the development of a national strategy for lifelong learning. They noted that increasing numbers of individuals, professionals, business leaders, union officials, interest groups, communities, agencies, governments and non-profit organizations have come to understand that their survival is dependent upon continuous learning; that an investment of energy, time and financial resources in lifelong learning is essential; and that the return on the investment is protection, preservation and prosperity within and for themselves, their interest group and the broader society. In their vision, *learning in the 21st century will be a continuous affair, valued and recognized as such. The shift in focus from teaching to learning will be completed and the emphasis on learners and learning organizations sharpened. Shepherded and supported by lifelong learning champions and working collaboratively, the learning system required for societal preservation, protection and prosperity will be in place.*

A fourth vision of lifelong learning is based on the timing of lifelong learning interventions. With lifelong learning as an organizing principle and social goal, Faris and others have proposed a vision of lifelong learning as a conceptual framework in which opportunities and necessary supports are provided throughout one’s life span. Elements of this vision include the development and promotion of learning organizations, i.e., human collectivities in which the lifelong learning of its members is systematically appreciated, encouraged, invested in, and used as a central corporate strategy. The overall goal, or vision, is to prepare Canadians for the information-based global economy of the 21st century by ensuring that they possess the skills, knowledge, attitudes and values needed to participate fully and productively in the nation’s social, cultural and economic development. It is recommended, by Faris (1997), that this be achieved through the following four strategies at key intervention points: preschool children, youth in the formal education system, adults, and seniors. The kinds of supports that would be required for this provision of lifelong learning would include social supports to enhance readiness to learn for children and to enable adults to access learning as they needed to.

A final vision of a preferred future for lifelong learning is of a radically transformed learning environment – one in which all elements of the traditional education and training system have been changed and integrated into a much larger learning environment. Some characteristics of this radically transformed learning system, identified by Barker (1996) are that it would be:

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57 Excerpted from Building a National Strategy for Lifelong Learning at [http://www.connect.ab.ca/~tllink/strategy.htm](http://www.connect.ab.ca/~tllink/strategy.htm)
1. a holistic and integrated system of inputs and resources, processes and practices, outputs and outcomes, with feedback loops and accountability mechanisms – rather than the fragmented elements that currently exist;
2. an open system, responding to the feedback loop and integrated with the external environment – rather than the existing closed “system;”
3. individualized, using current knowledge of how people learn and enabling technologies – rather than bureaucratic;
4. responsive to emerging and changing learning demands – rather prescriptive about what needs to be learned;
5. cyclical, with continuous and open entrance and exit – rather than linear, age-based and time-based;
6. learner-enabling, i.e., ensuring that all learners are successful to the degree that they can be – rather than learner-screening;
7. a global concern, taking into account the elements of global citizenship and international work opportunities – in addition to being a local concern;
8. promoting change – rather than maintaining the status quo;
9. teaching by modeling and facilitating – rather than by direct instruction;
10. an industry that demonstrates effectiveness, efficiency, innovation and accountability – rather than a costly, labour-intensive social agency;
11. consumer-oriented – rather than provider-based, self-serving decision-making;
12. learning-focused – rather than credential or completion focused.

Hence, a lifelong learning culture, as set out by Gallagher (1995), exists in a society that:
• supports people, young and older, to be continuously engaged in learning, both structured and unstructured;
• encourages and enables citizens to assume responsibility for their own learning;
• values educational and training institutions acting as co-operating components of a nation-wide learning network; and
• targets its limited resources for learning to those in greatest need of those resources.

The kinds of supports that would be required for this provision of lifelong learning, identified by FuturEd, would include but not be restricted to equitable access to learning opportunities; assurance of quality learning opportunities; preparation for learning (acquisition of learning skills); accurate, current and accessible information about learning opportunities; accurate,
current and accessible information about learning requirements; tools for assessing learning and making learning plans; means of assessing and recognizing all forms of learning; motivation for the acquisition of new skills and knowledge; and incentives for continuous learning.

For futurists, lifelong learning is critical to sustaining human existence and to preventing further environmental and social disintegration. Indeed, leaders in HRD and lifelong learning have a special responsibility for the future – providing environments in which others can learn the changing skills and knowledge required for the future while managing to change and model lifelong learning themselves.

REFERENCES


Appendix B:  
HRDC Lifelong Learning Policy Problem in Five Parts  

Prepared for D. Thornton, Learning Programs Policy  
Prepared by FuturEd (11/15/98)

The lifelong learning policy context is one of challenging change in human resources development and management, for the present and the future. In this context, the policy problem is characterized by the following five elements, with (A) evidence of the source and nature of the problems, (B) underlying values and assumptions, and (C) related HRDC policy initiatives under way.

1. The nature of Canadian society and the economy are evolving, through technological innovation to a globalized knowledge-based society; however, individuals and institutions are having difficulty understanding and making changes.

Canadians do not know what opportunities and exigencies exist in the knowledge-based economy, and they do not have equitable access to quality working and learning opportunities in or for a knowledge-based society.

The citizens of Canada, as individuals, need leadership, assistance and advocacy on their behalf at the national level to adapt and thrive in the emerging knowledge-based society.

A. Underlying values and implicit assumptions include the following.

♦ Change is ubiquitous, it can be both positive and negative, and the effects are seldom consistent across populations.

♦ Rapid societal change is largely externally-imposed, leaving some communities and individuals feeling victimized at worst, indifferent at best.

♦ Technology drives change. Technological innovation can be positive and/or negative.

♦ As an outcome, change can be managed, anticipated and planned.

♦ As a process, change requires resources – human, financial and temporal; and these resources are not unlimited.

♦ Socio-economic change threatens both good and bad elements of the status quo for individuals and for communities; and efforts must be made to mitigate the damage done by change to the that which we consider good in individuals and communities.
The emerging “changed” society offers opportunities that can be forecast or anticipated; individuals and communities should take advantage of those opportunities; and they may need help to understand and operationalize the opportunities.

The emerging changed society presents challenges and threats that individuals and communities should be aware of and prepared to deal with.

Canada is a composite of individuals and communities, an entity requiring leadership and management at the national / federal level to remain a viable entity.

B. Sample evidence of this element of the policy problem includes the following:

- Anything to do with the terminology of a knowledge-based society or economy is confused and confusing. Often and erroneously, “knowledge-based” and “high tech” are used synonymously. One HRDC study identified six major knowledge industries: education, research and development, media of communication, information services, information machines. Economist Nuala Beck says that knowledge workers fall into the following three categories only: professionals such as doctors, engineers, lawyers, accountants and actuaries; engineering, scientific and technical workers based on the extremely specialized skills acquired; and the very senior ranks of management.

- Regardless of definition, economists are excited about knowledge-based industries, as Malchup (1991) points out in an HRDC study. The “rates of growth observed in knowledge industries have exceeded those of the GNP, and the rates of growth observed in knowledge occupations have exceeded those of the total labour force.”

- The introduction of new technologies has been a major driver of change in the structure of organizations, the organization of work, training and job content. In fact, in Canada and elsewhere, a body of evidence has been building indicating that a realignment of “institutional technology” (workplace structures, work organization, and human resource practices) is a key to exploit the performance-augmenting potential of new technologies.

- The past two decades have seen a massive and profound transformation and restructuring of economic activities worldwide. In Canada, a new labour market polarization has emerged, featuring growth in both highly skilled, well-paid and secure jobs and low-skilled, poorly paid and unstable jobs. This polarization, as well as persistently high levels of unemployment and rising economic insecurity, are fundamental features of the new economy.

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58 See Malchup, 1991, p. 18; Knowledge, Industries and Occupations
60 Malchup, p. 20.
A case has been made, by Zyblock (1996) in a study for HRDC, that technology training is a key to reducing family market inequality. He also asserts that the individuals typically are afraid of change and unsure as to the directions that they need to adopt to increase personal and family income.63

According to an HRDC study,64 knowledge workers have been the fastest growing type of workers in the labour force over the last quarter century or so in Canada. Over the period 1971-96, while total employment was growing at an average rate of 2.1 percent per year, the employment of knowledge workers grew at a rate of 5.2 percent per year. This is twice the pace of services workers, the second fastest-growing group of workers over that period. Knowledge workers represented 6.3 percent of total employment in 1971 but 13.1 percent in 1996. In other words, the proportion of knowledge workers jumped from one in every 16 workers in 1971, to one in every 8 workers in 1996. Altogether, information workers constituted 44 percent of employment in 1971 but 54.1 percent in 1996.

Small businesses account for an increasing share of total employment – 36% of total private sector employment in 1993, up from 30% in 1979.65 Very small firms are the most consistent source of job creation.

Change is the common thread running through a report that examined the profile of people who are own-account self-employed.66 OASE incidence rises with age and is higher among men than women. However, since 1976 the incidence of OASE has risen most rapidly in the younger age groups. Further, since 1976, the incidence has risen somewhat more rapidly for females than males.

Additional evidence to support this element of the policy problem would be found in studies related to, e.g., depletion of resource-based industries and the demise of one-industry towns, reticence by many unionized workers to embrace technology.

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64 *Employment Trends in the Information Economy* at http://www.hrdc-drhc.gc.ca/arb/publish/bulletin/vol3n2/v3n2c1e.html


C. To address this element of the problem, HRDC policy/program initiatives include research and information services regarding:

- the changing nature of work in the knowledge economy (Strategic Policy)
- essential skills of the existing workforce (IALS with Statistics Canada)
- essential skills for knowledge workers
  - National Literacy Secretariat programs
  - Essential Skills Research Project
- entrepreneurial skills for the KBE (Youth Resources Network)
- science literacy for the KBE (Conference Board with HRDC assistance)
- studies by all the equity-seeking groups to identify systemic barriers

2. Lifelong learning is essential to a knowledge-based society; however, Canada does not have a lifelong learning policy to provide either the necessary lifelong learning opportunities or supports to Canadians.

Lifelong learning encompasses formal, non-formal and informal learning for individuals of all ages; while there are 13 provincial systems for the delivery of education and training to specific age cohorts, there is no pan-Canadian system to coordinate and/or support non-formal and informal learning in addition to or in relation to formal learning.

Supports for lifelong learning in the KBS are necessary; currently they are either inadequate or non-existent. These supports include, but are not limited to:

- equitable access to learning opportunities;
- assurance of quality learning opportunities;
- preparation for learning (acquisition of learning skills);
- accurate, current and accessible information about learning opportunities;
- accurate, current and accessible information about learning requirements;
- tools for assessing learning and making learning plans;
- means of assessing and recognizing all forms of learning;
- motivation for the acquisition of new skills and knowledge; and
- incentives for continuous learning.

Opportunities for lifelong learning in the KBS are necessary; currently they are misunderstood, misused and/or inadequate. Appropriate learning opportunities include but are not limited to:

- a transformed formal E/T system
- quality-assured non-formal and informal E/T
- increased use of information and communications technology and the media
- different forms of recognition for learning
A. Underlying values and assumptions include the following.

♦ Canadians have learning requirements over their entire lifetimes; a public policy should ensure that lifelong learning requirements are identified and met.

♦ Learning requirements must be identified by individuals and/or by agencies operating on their behalf, i.e., governments.

♦ The objective of a lifelong learning policy is to provide the necessary learning opportunities and supports for Canadians of all ages, in all parts of Canada.

♦ Learning and change are synonymous: adapting to change requires learning; learning means changing levels and types of skills and knowledge.

♦ Learning happens in all environments: formal (public and commercial education and training), non-formal (e.g., work, computer programs, books, family and community responsibilities) and informal (e.g., travel, the media).

♦ Recognition of formal learning takes the form of credits and credentials; and it is difficult to acquire recognition for non-formal and informal learning.

♦ Increasingly, academic credits and credentials are seen as a questionable proxy for acquired skills and knowledge; and increasingly formal learning must be supplemented by informal and non-formal learning.

♦ All Canadians should be treated equitably; they should have equitable access to lifelong learning.

♦ Lifelong learning opportunities should be of the highest quality, as determined by the consumers and their advocates. Quality assurance mechanisms are required.

♦ There are prerequisites for lifelong learning, i.e., the real needs of children, youth, adults and seniors must be accommodated.

♦ Lifelong learning requires the acquisition, enhancement and use of learning skills, e.g., literacy, research, critical thinking.

♦ It is possible to create and provide information about KBS learning requirements and learning opportunities in a format that is current, accurate and accessible.

♦ Lifelong learning must, in some respects, be self-managed; and this is possible with tools for assessing acquired learning, learning gap analysis, and making learning plans.

♦ Individuals must be motivated to be lifelong learners; and each individual’s motivation is internal and unique, e.g., fear, curiosity.

♦ Incentives for lifelong learning are external, e.g., increased salary, promotion. External incentives and recognition for lifelong learning are not well understood or available, as, for example external incentives are for post-secondary education.
B. Sample evidence of this element of the policy problem includes the following:

♦ In the US, companies waste $10 billion every year on ineffective training in “soft skills,” according to a consortium of business schools, industry and government representatives.\(^{67}\) Equivalent Canadian statistics have not been gathered.

♦ In order to attract and develop high-tech, KBE industries, a region must provide a skilled workforce, a high quality of life, and access to lifelong learning through, e.g. a local university, according to the Conference Board of Canada.\(^{68}\)

♦ As a result of increasingly sophisticated technologies in the workplace, by the year 2000, over 64% of the jobs in the future will require 13+ years of education.\(^{69}\)

♦ Lack of learning readiness for school may make it difficult for children to adjust to school, to succeed academically and to be accepted by peers. There are indications from the National Longitudinal Survey of Children and Youth (NLSCY) that a sizeable number of children aged four and five experience difficulties that can cause problems at school entry.\(^{70}\)

Additional evidence to support this element of the policy problem would be found in studies related to, e.g., exponentially increasing amounts of knowledge to be dealt with; increasing skill requirements for jobs; the extreme limitations of PLAR initiatives; the importance of public libraries, public radio and TV; problems with implementing Human Resources accounting practices; reliance on credits and credentials as a proxy for learning; and literacy problems in the adult population.

C. To address this element of the problem, current HRDC policy/program initiatives include:

♦ extensive labour market analysis and information, e.g.,
  ♦ WorkInfoNet
  ♦ National Job Bank
  ♦ Work Futures

♦ considerable effort to identify learning requirements, e.g,
  ♦ Sectoral Partnership Initiative
  ♦ Occupational Standards and Information

♦ elaborate advice regarding career development options and methods
  ♦ Career Explorer
  ♦ Job Search Strategies

♦ labour market advice and services, e.g., ELE

♦ efforts to recognize non-formal and informal learning, e.g., PLAR

♦ access to learning through information and telecommunications technologies, i.e. Office of Learning Technologies

\(^{67}\) Reported in the Vancouver Sun, Oct. 8, 1998.
\(^{68}\) What Makes Technopoles Tick? (Conference Board of Canada, 1997).
  \url{www2.conferenceboard.ca/press/prev/1997/techno97.htm}
\(^{69}\) Technology Training in the Workforce (Industry Canada, 1997).
  \url{http://www.strategis.ic.gc.ca/cgi-bin/}
\(^{70}\) The Best Possible Start: Learning Readiness at School Entry at \url{http://www.hrdc-drhc.gc.ca/arb/publish/bulletin/mydocument/V4N1C14E.html}
3. To maintain Canada’s prosperity and quality of life, Canadians – Canada’s human resources – must participate fully in the economy, in their communities – local, national and global, and in lifelong learning; however, not all Canadians participate to the extent they want to or need to. Canada’s prosperity and stability, now and in the future, is in jeopardy for this and other reasons.

A. Underlying values and implicit assumptions include the following:

♦ If they were able, the majority of Canadians would participate in the economy and in their communities; however, many do not for a variety of reasons. Individual Canadians cannot be responsible for the prosperity of all Canadians.

♦ Governments must take responsibility for the prosperity and quality of life of Canadians; therefore, they must take responsibility for those who do not participate fully in the economy and the community.

♦ It is possible for circumstances to get better or worse; quality of life is slipping in Canada.

B. Evidence of this element of the policy problem includes the following:

♦ The economic well-being of Canadians has substantially decreased in the 1990s according to a new measure of economic well-being that accounts for consumption, the accumulation of productive resources; poverty and inequality, and economic insecurity.71

♦ The standard of living in Canada is negatively affected by poor productivity; the number of individuals living on low incomes continues to increase.72

♦ The number of highly skilled Canadians emigrating to the US has increased in the 1990s, at an estimated cost to the Canadian economy of $11.8 billion, including $6.6 billion worth of education; according to CD Howe Institute research, the cause of the “brain drain” is lack of employment opportunity and salaries equivalent to what is available in the US.73

♦ While Canada’s ability to develop, attract and retain knowledge workers is critical to developing and sustaining a knowledge-based economy, there is an increasing shortage of people with the necessary skills, according to the Conference Board of Canada.74

♦ At this time, between 66% and 80% of the future earnings of Canadians are tied directly to education (the alpha coefficient).75

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71 Research by the Centre for the Study of Living Standards, reported in the Globe and Mail, Oct. 28, 1998.
75 Psacharopolous, 1991; p. 23.
Notwithstanding this evidence, it must be acknowledged that:

♦ in a UN report, Canada ranks among the leaders in terms of quality of life
♦ significant numbers of immigrants continue to seek citizenship in Canada

C. To address this element of the problem, current HRDC policy/program initiatives include:

♦ designated equity groups policies and programs
♦ research to explore the extent of childhood poverty, social problems
♦ official languages programs to increase social cohesion
♦ regional economic development agencies, e.g., WED, ACOA

4. Some individuals and groups of Canadians are not able to participate fully in the community, the economy and/or lifelong learning – present or future – because they are not able to

♦ manage transitions in their lives,
♦ be self-reliant,
♦ invest in themselves,
♦ be adaptable,
♦ identify risks and opportunities early enough,
♦ make good choices, and/or
♦ gain access to the right government and community resources.

Some individuals and groups experience systemic barriers to equitable participation in the workplace, the community and especially the knowledge-based economy; and their needs are not given priority.

Many individual Canadians need help to prepare for, find and keep work; provide security for themselves, their families and communities; and find work in environments that are fair, safe, healthy, stable, cooperative and/or productive.

A. Underlying values and implicit assumptions include the following:

♦ With assistance, most Canadians can participate in the economy and the community to the extent they want to or need to. Assistance takes the form of programs and services to increase self-reliance, decision-making, adaptability, transitions management, use of government programs and resources – a list taken directly from the HRDC 1998 mission statement.

♦ Special programs and services are needed for those who experience systemic barriers.

♦ The KBS presents a new array of barriers, and particularly to those already at risk.

♦ With appropriate governmental assistance, Canadians will be prepared and able to find work, provide security for themselves and others. With appropriate incentives, employers will provide workplaces that promote lifelong learning.
B. Evidence of this element of the policy problem includes the following:

- From the International Adult Literacy Study we know that about 22% of adult Canadians 16 years and over fall in the lowest level of literacy. They have serious difficulty dealing with printed materials and most likely identify themselves as people who have difficulties reading; and another 24-26% fall in the second lowest level. Such people can deal only with material that is simple and clearly laid out, and material in which the tasks involved are not too complex. They read, but not well. This has sweeping negative implications for rates of unemployment, poverty, crime, family violence, and youth unemployment in Canada.

- An analysis of the IALS data establishes a strong link between economic security and literacy. Working-age adults with weaker literacy skills were far more likely to be living in low-income households than those with stronger literacy skills. For example, nearly half (47%) of adults at the lowest level of literacy on the prose scale were living in low-income households, compared with only 8% of those at the highest level of literacy.

Additional evidence to support this element of the policy problem would be found in studies related to, e.g., social assistance rates for target populations, e.g., youth, women, First Nations; statistics on poverty and other social problems; unemployment rates, EI rates; personal bankruptcies; workplace training statistics; regional disparities; participation rates in literacy programs; youth unemployment; and voter participation rates.

Notwithstanding this evidence, it must be remembered that:
- enrolment in PSE is increasing
- education achievement rates are as good as or better than most in international comparisons
- participation in non-formal learning is substantial
- the start-up rates for SMEs is increasing

C. To address this element of the problem, current HRDC policy/program initiatives include:

- basic skills through NLS: research, policies, materials development
- designated equity-seeking groups: research, policies, programs
- Youth Link, Youth Employment Strategy, Youth Service Canada, Youth Internship Canada, Canada Student Loans
- Employment Insurance Commission
- student loans
- support for employers and unions
- EI and related programs
5. Canadians do not have equitable access to quality lifelong learning and/or a full range of human development programs and services. Present programs and policies do not completely reduce inequality, promote growth, support social development and/or support economic development in the workplace and the community.

Current HRDC programs and services do not adequately support lifelong learning, i.e., they are not:
- integrated on the basis of a key life transitions model;
- preventative, in addition to being remedial;
- designed and delivered in partnership with others;
- tailored in such a way that individuals can use them to help themselves;
- complementary with each other;
- affordable;
- of the highest quality;
- making innovative use of technologies;
- new and creative;
- results-oriented; and/or
- focused on individual Canadians as “consumers” of lifelong learning opportunities and supports.

HRDC itself is not a learning organization. To support and implement a lifelong learning culture in Canada, HRDC must become a learning organization to model the principles.

A. Underlying values and implicit assumptions include the following:
- HRDC can develop and implement policies and programs that ensure equitable access to lifelong learning for all Canadians.
- HRDC can and must ensure quality in lifelong learning opportunities and supports.
- HRDC can and must develop and implement programs that support lifelong learning. It is aware of the weaknesses or shortcomings in existing project – as per the list above, taken directly from the HRDC 1998 mission statement.
- In order to implement a lifelong learning policy for Canadians, HRDC must be seen to model lifelong learning: it must walk the talk.
- HRDC can become a learning organization.
B. Sample evidence of this element of the policy problem includes the following:

♦ Despite much effort, regional disparities continue to put some Canadians at a disadvantage economically and otherwise. For a variety of reasons, there are pronounced regional disparities in terms of many measures: per capita income, level of education, new economic development.

♦ The majority of unemployed, when surveyed, indicated that they were unlikely to use government-based employment advisors and services.

♦ The 1994 IALS study revealed that Canadian provinces vary substantially in their average literacy scores for youth.

Additional evidence to support this element of the policy problem would come from the Auditor General’s department and from HRDC itself, through the critical evaluation of its own programs and services. The list of “improvements” stated above come directly from the HRDC 1998 mission statement.

C. To address this element of the problem, current HRDC and federal government (Heritage Canada) policy/program initiatives include:

♦ support for public libraries, public media
♦ regulation of media
♦ HRDC mission statement

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