University Plan Consulting Group: Literature Review

The University of Lethbridge

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1. Important Trends

General

Changes that will influence higher education include:

- A shift to a user pay system.
- The explosion of available information.
- Learners need preparation for multiple careers.
- Graduates need to cope with the global marketplace.
- The growth of accredited learning outside the university setting. [Rowley et. al., 1998.]

Economic changes, greater labour market competition, and greater politicization of education are major influences on Canadian education. [Guppy and Davies, 1998.]

Higher education serves a broadening range of service roles, e.g., improving K-12 education and stimulating the local economy. [Dunderstadt, 1999.]

Higher education is moving towards an open learning environment, with students as active learners and consumers, and strong market forces. [Dunderstadt, 1999.]

Higher education will likely develop into a knowledge and learning industry, global in extent, and powered by emerging information technology. [Dunderstadt, 1999.]

Commercialization Of Post-Secondary Education

Universities are increasingly accountable to corporate interests. With the erosion of federal and provincial funding, universities have been forced to rely on corporate "gifts" to fund core operations, which carries hidden dangers of corporate influence and control.

The Report of the Expert Panel on the Commercialization of Research (May 1999) recommends inducements and punitive measures to ensure that research with commercial potential has priority over public interest research. It also ties research funding to how well a university can commercialize its research. [Conlon, 2000.]

In 1998, corporations accounted for about 9% of all research at U.S. colleges and universities. The Industrial Research Institute predicts that industry funding of university research will more than double over the next decade. [Working Together, Creating Knowledge, 2000?]

Corporate donations to post-secondary institutions in Canada have increased, but these donations have been mostly through proprietary contracts, with conditions attached to the donation. [Newson, 2000.]

The commercialization of post-secondary education has three forms:

1. The transformation of post-secondary institutions into marketing sites for products. For example, exclusivity deals with Coke or Pepsi.
2. Corporate attempts to alter the delivery of education so there is more use of privately-supplied goods and services. For example, private companies persuading institutions to incorporate computer hardware and software into learning.
3. Corporate pressure to force public educational institutions to operate like private institutions. For example, using the term "customers" or "clients" for students. [Turk, 2000.]

The commercialization of post-secondary education turns knowledge into privately-owned intellectual property that benefits only a limited number of Canadians. [Newson, 2000.]

Funding programs increasingly require researchers to get money from private sector partners as a condition of getting support. [Turk, 2000.] There is a trend for more

government matching fund programs, which favour institutions that are well-connected to corporations. [Conlon, 2000.]

Commercial firms are emerging to provide vocational training through computer-based distance education. Universities are striving to compete with these firms, in the process coming to resemble them, as "digital diploma mills."[Noble, 2000.]

Students "are being skewed towards those subjects considered...valuable in the marketplace."[Axelrod, 2000.]

The corporate management style has become increasingly evident in post-secondary education. Faculty members are seen as subservient workers, not autonomous professionals. [Shaw, 2000.]

In November 1999, U.S. Trade Ambassador Charlene Barshefsky said that the U.S. wants to include free trade in education services in the negotiations of the World Trade Organization. This would open up education to increased privatization and competition from the private sector. [Cohen, 2000.]

The General Agreement on Trade in Services (GATS), a document added to the GATT that is a step towards an agreement on international trade in services, could affect education. GATS covers all education systems that include private providers, or allow commercialization. It identifies the extent to which foreigners may supply services in a country.

So far, Canada has not committed to liberalized trade in education, but this could change. GATS provides for continued negotiations on liberalizing services. In addition, there are several indications that the Government of Canada supports U.S. efforts to liberalize trade in social services, including education. [Cohen, 2000.]

Commercialization Of Technology

According to a 1998 Statistics Canada survey, about one-third of Canadian universities have licensed their technologies. In 1997/98, universities received $11.5 million in royalties from licenses. However, lack of capital often impedes commercialization processes.

Competency-Based Education

There is increased interested in measuring competencies and specific learnings. This is manifest in the worldwide development of systems of skill standards for education. [Voorhees, 2001.]

Post-secondary education has become increasingly responsive to the needs of business and industry, tying learning to competencies. [Voorhees, 2001.]

Competition

Competition between institutions is increasing. Institutions must quickly recognize paradigm shifts, and respond. [Rowley et. al., 1998.]

Competition between institutions (such as advertising and offering more attractive scholarships) may become more intense in the future. [Guppy and Davies, 1998.]

Traditional institutions will face increasing competition from new institutions that do not have fixed investments in physical plants or tenured professors. For example, technology companies will offer sophisticated courses at lower cost than universities and colleges. [Katz, 1999.]

Changes in the social environment have increased competition for higher education:

- Baby boomers will retire and place greater demands on public funds, which may result in less public funds for post-secondary institutions.
- Increased use of technology in education.
- With the blurring of industry boundaries, colleges and universities cannot draw boundaries around themselves, as the only providers of higher education.
- Many workers try to keep their skills current, and have become discriminating

buyers of educational services. [Blustain, et. al., 1999.]

Completion

The percentage of Albertans aged 25 to 34 who completed post-secondary programs rose from 52% in 1996/97 to 56% in 2000/01. The percentages for Canada as a whole are 54% in 1996/97 and 60% in 2000/01. [Alberta Learning, 2001b.]

Degrees

More women than men earn degrees in Canadian universities. In 1997, 58% of all undergraduate degrees are earned by women. This has increased from 38% in 1972. For graduate degrees, men are slightly ahead. In 1997, men earned 13,860 graduate degrees, while 13,350 were earned by women. [Association of Universities and Colleges of Canada, 1999.]

The number of masters degrees earned in Canada has risen steadily, increasing almost 30% from 1988 to 1997. This may be leveling off, as there was a slight decline in this number in 1997. [Association of Universities and Colleges of Canada, 1999.]

The number of doctoral degrees earned in Canada grew by 62% from 1988 to 1997. Enrolment and degree production for doctoral degrees have been flat from 1997-99. [Association of Universities and Colleges of Canada, 1999.]

In 1997, social sciences, education, and humanities accounted for the largest number of bachelor's and master's degrees. [Association of Universities and Colleges of Canada, 1999.]

Demographic Trends

In Alberta, there are the following significant demographic trends —

- Growing senior population.
- Increasing Aboriginal youth population.
- Echo baby boom.
- Aging workforce.
- Rural depopulation.
- Urban migration. [Alberta Learning, 2001b.]

Education For Profit

In the United States, for-profit educational institutions are a $3.5 billion a year business, and are growing at over 10% a year. [Blustain, et. al., 1999.]

Education & The Economy

There is increasing pressure for change from those who wish to enhance education's contribution to employment and the economy. [Papadopolous, 1998.]

Educators Vs. Politicians

There is a rising conflict between educators (who see themselves as guardians of educational standards), and education politicians (who want to impose their views and values on the educational system). [Papadopolous, 1998.]

Enrolment & Participation In Learning

In Canada

Full-time enrolment in Canadian universities hit a peak in 1992 of almost 570,000 students, and leveled off through 1998. Part-time enrolment hit a high of 316,000 in 1992, and declined to 204,000 in 1998. [Association of Universities and Colleges of Canada, 1999.]

Enrolment of undergraduate students at Canadian universities in 1999/2000 was up 1.7% over 1998/ 99, but was well short of the record enrolment in 1992/93. Following the peak enrolment of 1992/ 93, undergraduate enrolment dropped for five consecutive years. This decline was mostly due to a drop in part-time undergraduate students; the number of full-time undergraduates stayed steady. [Statistics Canada, 2001, November 8.]

The trend of continually rising enrolments at Canadian post-secondary institutions has

stalled. The era of growth has come to a close. [Guppy and Davies, 1998.]

From 1992/93 to 1999/2000, part-time enrolment fell by 7.0% among 18 to 24 year olds, and by 29.9% among 25 to 44 year olds. [Statistics Canada, 2001, November 8.]

In 1997, almost 28% of Canadians participated in adult education and training. Of these, 75% took a course or program for job-related reasons. Participation rates were 27% for men, and 29% for women. Women had less financial support from their employees than men. Through the 1990s, participation was similar from early adulthood to the mid-50s, but showed a large decrease among those aged 55 years and over. [Statistics Canada, 2001.]

Through the 1990s, participation in adult education and training has stayed flat. However, the number of hours spend on adult education and training has steadily increased. [Statistics Canada, 2001.]

Since the early 1980s, there is an increasing tendency for students to enroll full-time. [Guppy and Davies, 1998.]

Women account for more than half of all Canadian university students, and 75% of the enrolment growth over the past 15 years. [Association of Universities and Colleges of Canada, 1999.]

Among 18 to 24 year olds, women made up 57.1% of full-time undergraduate students in Canada in 1999/2000. This is an increase from 54.2% in 1992/93. [Statistics Canada, 2001, November 8.]

From 1992/93 to 1999/2000, the participation rate of Canadian women 18 to 24 years old in full-time undergraduate studies rose from 15.6% to 16.7%. For men, the participation rate fell from 12.5% to 11.8%. Over the same period, enrolments among Canadian women 25 to 44 years old dropped 5.6%, and fell 17.6% among men in this age group. [Statistics Canada, 2001, November 8.]

International student enrolment in Canada has fluctuated. From 1988 to 1991, it was about 30,000 students, and dropped steadily over the next four years. It increased slightly from 1996-98. [Association of Universities and Colleges of Canada, 1999.]

In Alberta

From 1980-81 to 1991-92:

- Full-time enrolment in Alberta universities grew by 48%.
- Full-time enrolment in Alberta public colleges grew by 103%.
- Full-time enrolment in Alberta technical institutes stayed stable. [Alberta Advanced Education and Career Development, 1994.]

Part-time enrolment at Alberta universities, colleges, and technical institutes increased by 30%.
[Alberta Advanced Education and Career Development, 1994.]

From 1992/93 to 1999/2000, full-time enrolment at Alberta universities grew by 10.3%, while part-time enrolment increased 45.1%. Across Canada, part-time enrolment increased in only two provinces: British Columbia and Alberta. [Statistics Canada, 2001, November 8.]

Population growth in Alberta could increase the number of high school graduates from 22,000 in 1991 to about 30,500 in 2005. The number of students seeking post-secondary education could rise from 13,500 in 1991 to 18,500 in 2005. [Alberta Advanced Education and Career Development, 1994.]

In Alberta, adult participation in learning declined from 33% in 1999/00 to 30% in 2000/01. [Alberta Learning, 2001b.]

In Alberta's post-secondary system, the number of international students has grown from 3,821 in 1997/98 to 5,091 in 1998/99. [Alberta Learning, 2001a.]

Enrolment by program type, 1998/99 to 1999/2000 —
[Alberta Learning, 2001b.]

Faculty Members

From 1992-99, the number of faculty members at Canadian universities decreased by 11%. Universities have reduced the number of employees in response to funding cuts. Only half of all faculty who leave are being replaced. [Association of Universities and Colleges of Canada, 1999.]

The aging faculty is becoming an issue, due to hiring patterns over the past 40 years. The growth rate of the number of faculty slowed down from 1976 to 1992, and did not offset the aging of the cohort hired in the previous 15 years. The average age of faculty increased from 42 in 1976 to 49 in 1999. the proportion under the age of 40 dropped from 50% in 1976 to 21% in 1992. [Association of Universities and Colleges of Canada, 1999.]

The growth rate of the number of female faculty members is decreasing significantly. From 1976 to 1992, it was 100%; from 1992-97, it was 3%. [Association of Universities and Colleges of Canada, 1999.]

The number of newly-appointed faculty in Canadian universities has been declining from 1990-96. [Association of Universities and Colleges of Canada, 1999.]

In real terms, faculty salaries dropped in the mid-1990s. Average full and associate professor salaries were just over $83,000 in the early 1970s, and dropped below $80,000 in 1996. [Association of Universities and Colleges of Canada, 1999.]

Fields of Study

Among fields of study in Canadian post-secondary education from 1975 to 1993, the only substantial growth occurred in the social sciences, which accounted for 31.2% of university undergraduate degrees in 1975, and 39.8% in 1993. Over the same period, education showed a large decline (25.5% to 17.6%), and the following fields stayed almost the same: agriculture, biological sciences, engineering and applied sciences, health professions, humanities, and math and physical sciences. [Guppy and Davies, 1998.]

Program Type		% of Total, 1998/99	% of Total, 1999/00
Degree Programs	Bachelor Degree	40.2	39.4
	University Transfer	5.8	5.9
	Master's Degree	4.3	4.9
	Ph.D. & Doctoral Degree	1.8	1.7
	Applied Degree	0.8	0.8
Career Programs	Diploma	18.3	18.1
	Certificate	5.0	4.6
	Other – Post-Diploma	0.5	0.4
	Trade Certificate	0.5	0.5
Preparatory & Basic Upgrading		8.9	8.7
General Studies		6.9	8.1
Skill Training		3.5	3.5
Apprenticeship Training		3.5	3.4

Though high tech fields of study (e.g., computer science) have expanded in recent decades, enrolments in business and related fields have been larger. [Guppy and Davies, 1998.]

Post-secondary enrolment in Alberta by subject areas, 1998/99 to 1999/00 —

Subject Area	% of Total, 1998/99	% of Total, 1999/00
Arts and Science	28.2	30.2
Engineering	15.0	13.6
Business and Related	12.9	12.7
Preparatory and Basic Upgrading	9.0	8.7

Education	7.7	7.3
Health Related	5.6	5.8
Computing/Info Technology	4.0	3.9
Social and Community Services (including Law)	3.5	3.6
Fine Arts	2.5	3.0
Medicine and Dentistry	2.6	2.1
Services and Hospitality	1.9	1.8
Agriculture	1.8	1.5
Unclassified and Other	5.3	5.8

[Alberta Learning, 2001b.]

Globalization

There is movement towards the internationalization of higher education. Students will move more freely from one institution to another. Schools will rely on international partners to provide courses, programs, and faculty expertise. [Kolodny, 1998.]

Government Support For Post-Secondary Education

Real government support for post-secondary education in Canada has declined significantly. In 1978, governments provided more than $11,000 per student. In 1998, this fell to below $7,000 per student. Government support has decreased an average of 20% across Canada since 1993. [Association of Universities and Colleges of Canada, 1999.]

Education has become a lower spending priority for provincial governments. From 1965-1978, education accounted for 27.3% of provincial budgets. In the 1990s, this figure was just over 21%. [Association of Universities and Colleges of Canada, 1999.]

Decreasing government funding of post-secondary education has resulted in a greater reliance on tuition fee revenue. [Association of Universities and Colleges of Canada, 1999.]

Provincial and federal governments have switched to targeted funding mechanisms. Governments expect universities to meet the remaining costs through private sector investors, increased tuition fees, or redirecting money from other program areas. [Association of Universities and Colleges of Canada, 1999.]

Information Age

There is a paradigm shift from the industrial age to a new "information age."[Rowley et. al., 1998.]

Labour Market

Evidence suggests that, in the labour market, it is the degree that counts, and not the discipline. In October 1998, degree holders aged 25 to 29 had 4.2% unemployment, compared with 7.8% nationally. [Association of Universities and Colleges of Canada, 1999.]

In Alberta, almost 69% of job openings from 1992 to 2005 are expected to require post-secondary education or training. About 17% of job openings over the same time period are expected to require a university degree. [Alberta Advanced Education and Career Development, 1994.]

Learner Centred

Universities will be forced to evolve from faculty-centred to learner-centred. They will come under increasing pressure to spin-off, sell off, or close down parts of their operations. [Dunderstadt, 1999.]

There is a growing trend towards individualized, learner-centred instruction. [Alberta Learning, 2001b.]

Lifelong Learning

See Also: Enrolment & Participation In Learning (page 4).

There is increasing public demand for lifelong learning options. [Alberta Learning, 2001b.]

Market-Driven Learning

The classroom experience may become a commodity product, provided to anyone, anywhere, anytime. [Dunderstadt, 1999.]

The waves of market pressures on higher education are building. [Dunderstadt, 1999.]

Method Of Delivery

In 1997, classroom instruction was still the dominant method of learning delivery for 86% of course suppliers. [Statistics Canada, 2001.]

Mission Of Higher Education

The mission of higher education has expanded to include the following:

- **Provide knowledge to the workforce** — Many corporations have partnered with colleges and universities to educate workers.
- **Reeducate people for new careers** — People who change careers increasingly look to targeted programs at universities and colleges.
- **Cater to the market for education for education's sake** (self-improvement).

Operating Income & Revenue Base

From 1992-98, the rate of change in operating income for Canadian universities, by source, has been:

Government: – 24%

Other: + 45%

Total: –6%

Fees: + 67%

Gifts and Donations: + 29%

[Association of Universities and Colleges of Canada, 1999.]

Reduced government support of post-secondary education has forced universities to raise tuition, but universities still have a smaller revenue base in 1999 than they had in 1990. With a reduction in revenue base, most universities cannot expand services to new clients. [Association of Universities and Colleges of Canada, 1999.]

Operating Expenditures

From 1980 to 1996, total operating expenditures for Canadian universities have decreased by 17%. [Association of Universities and Colleges of Canada, 1999.]

Partnerships With Industry

Universities are increasingly partnering with other institutions and private companies to meet short-term labour market demands. [Association of Universities and Colleges of Canada, 1999.]

Some universities will produce and deliver courses for private firms. Universities who do this will be paid royalties. [Katz, 1999.]

Political Influences On Policy

"Identity politics" (i.e., politics based on visible characteristics like race, ethnicity, or gender) is rising in importance, and is increasingly shaping policy concerns in education. [Guppy and Davies, 1998.]

Research Funding

There have been the following changes in research funding of Canadian universities from 1980/81 to 1996/97, by funding source:

Federal government: 41%

Provincial government: 67%

Gifts, donations, non-government grants and contracts: 246% [Association of Universities and Colleges of Canada, 1999.]

Proportions of university research funding, by source:

	95/96	96/97	97/98	98/99	99/00
Federal	47%	44%	41%	37%	40%
Provincial	21%	20%	25%	28%	31%
Industry	15%	17%	18%	19%	14%
Non-profit	14%	16%	13%	12%	12%

Other	3%	3%	3%	3%	3%
Total (millions)	$169.7	$179.8	$194.4	$230.9	$300.0

[Alberta Learning, 2001b.]

For funding, research activities at post-secondary institutions in Canada increasingly rely on matching, partnership, and short-term contractual arrangements with the private sector. [Association of Universities and Colleges of Canada, 1999.]

The private funding of Canadian university research and development has increased sharply over the 1990s. It was close to $150 million in 1989/90, and was almost $350 million in 1995/96. [Association of Universities and Colleges of Canada, 1999.]

Canada's gross expenditures on research and development have grown steadily in the 1990s, reaching almost $14 billion in 1998. Funding from sources other than the government has grown from 18.4% in 1984/85 to 36% in 1996/97. [Association of Universities and Colleges of Canada, 1999.]

Scholars

Research and scholarship is moving to teams of scholars, not solitary scholars. Disciplinary specialists may become less necessary. [Dunderstadt, 1999.]

Skills Training

There is growing industry demand for new skills that require training programs. [Alberta Learning, 2001b.]

Students

There is a change from students to *learners*. Students seek knowledge, but receive it passively. Learners also seek knowledge, but do so more actively, and are consumers, not receptacles. They decide what areas of knowledge they need to learn, look for teaching methods that match their time and resource constraints, want to be part of the knowledge creation process, and know that they have choices. They need a different form of education. [Rowley et. al., 2001.]

Learners and employers are becoming more interested in the shortest route to results. [Voorhees, 2001.]

Students over 40 years old are the fastest-growing student group in post-secondary education. This group could overwhelm university infrastructure. [Rowley et. al., 1998.]

Student Outcomes

In education, there is an increasing emphasis on curriculum outcomes and assessment. The public tends to demand greater accountability for student outcomes, and expresses concerns about student achievement. [Dunning, 1997.]

Technology In Education

Technology has become an essential educational tool, and is leading to new partnerships between education and industry. [Dunning, 1997.]

New technologies will make it possible to bring universities and colleges into classrooms and living rooms around the world. [Katz, 1999.]

"There is little evidence that...virtual education technologies [have] enriched the quality of education for students or faculty."[Turk, 2000.] Drop-out rates for online distance education are much higher than for classroom instruction. [Noble, 2000.]

Tuition Fees & Student Debt

Increased tuition fees across Canada have increased concerns about student debt. Sometimes, as much as 30% of an institution's fee increase has gone towards institutional financial support to students. [Association of Universities and Colleges of Canada, 1999.]

From 1982-1995, the average amount of money owed by students at graduation has grown for Bachelor's degrees, from about $6,000 to $9,000. [Association of Universities and Colleges of Canada, 1999.]

Student financial assistance has grown rapidly, mostly in the form of student loans. [Association of Universities and Colleges of Canada, 1999.]

Types Of Institution

New forms of higher education institutions are emerging:

- **Cooperative Colleges and Universities** — Cooperative efforts among two or more campuses.
- **Composite Universities** – Enforce on academic performance a business model of financing. Programs must achieve certain goals, and are rewarded with increased allocations when they achieve them.
- **Perpetual Learning Colleges and Universities** – Learners have a lifelong relationship with institutions through periodic seminars, distance learning, email, Internet, or other interactive educational methods.
- **Virtual Universities** – Provide Internet-based learning on demand. Can be degree based, or non degree based.
- **Virtual University Indexes** — Organizations that index courses available from traditional and virtual institutions. Learners choose a course from the index, and arrange to take the course with the institution offering it.
- **Self-Directed Teams** – Campus leaders define institutional objectives, then create teams of people, and assign them to a project based on the objectives. This model considers university activities and learner needs as a series of projects.
- **Assessment and Competency-Based Colleges and Universities** – Learning is assessed, not graded. Learners help determine when they have mastered a topic or course. This type of institution has been spurred on by calls for assessment and outcomes-based education.
- **Corporate Universities** – For-profit learning institutions, run as businesses. Produce programs for which there are demand. Faculty members are primarily practitioners, not academics, and do no research. This represents one of the fastest-growing sectors of higher education in North America.
- **Company Universities** – Company in-house educational programs, ranging from courses to accredited degree programs. These institutions are designed to meet specific company needs, but are beginning to teach basic skills.
- **Alternative Colleges and Universities** — Free-form, non accredited institutions, with minimal overhead and staff. [Rowley et. al., 2001.]

A single model of higher education is no longer the rule, and is inadequate to meet learner's needs. [Rowley et. al., 2001.]

Universities Without Boundaries

There is a growing demand for higher education on an anytime, anyplace basis. [Katz, 1999.]

Waves Of Transformation

Rowley et. al. (1998), predicts that for post-secondary institutions change will be coming in waves:

- **Squeeze Wave** – Internal and external pressures to change to a more responsive style, while being constrained (squeezed) by decreasing resources.
- **Digital Learning Wave** – Pressure to use the World Wide Web for learning, research, and scholarship. Emergence of college-level courses on the Internet.
- **Virtual University Wave** – Growth of virtual learning universities across the globe, which may or may not have a core faculty. The impacts of this on higher education are unknown.

- **Global Wave** – Globalization of higher education. Combining of educational resources across international boundaries to create worldwide educational opportunities.
- **Commercialization Wave** — Commercialization of higher education. Institutions will compete with each other, and make commercial agreements to deliver learning products.
- **Personally Directed Learning Wave** — Increase of access to educational opportunities through personal computers and WebTV, to meet the demand for easy access to effective, efficient, and convenient learning opportunities. There will be personally customized online learning.
- **Wireless Education Wave** – Increased use of wireless technology in education. Commercial satellites will connect people to ".the most sophisticated learning structure ever imagined."

2. Challenges, Threats, & Opportunities

General

The growing demands of the information age worker, the increase in competition (especially from the corporate sector), and advances in technology are both opportunities and threats. [Rowley et. al., 1998.]

Challenges & Threats

Challenges Of Change

The critical challenges for post-secondary education will be to develop the capacity for change, and remove barriers that prevent institutions responding to rapid change (e.g., unnecessary processes and administration). [Dunderstadt, 1999.]

The challenges related to change are:

- **Financial** – Since the late 1970s, there are increasing demands for more services, and the cost of providing these services has grown even faster. Operating costs have risen, while public support for higher education has shrunk. Many institutions have been forced to raise tuition, resulting in public concerns about access to higher education.
- **Societal Needs** – Society's needs for higher education will continue to grow. The composition of undergraduates is changing. Now there are increasing numbers of adults looking for career-related education. Institutions will have to change to the needs of this group.

  There is a shift in demand from *just in case education* (degree programs), to *just in time education* (when a person needs it; nondegree programs), to *just for you education* (programs tailored to lifelong learning needs of students).

  There is also a shift from classroom-based instruction, to computer network-based learning, to widespread learning opportunities throughout society.
- **Technology** – Information technology is a major driver of change in higher education. For example, virtual learning expands potential markets, and increases competition from virtual universities. [Dunderstadt, 1999.]

Challenges Related To Labour Market Trends

If current labour market trends continue, there will be an increasing number of 18 to 24 year olds unemployed, which will affect young people's attitude to the value of higher education, and more students may lean towards more vocationally-oriented courses. [Papadopolous, 1998.]

Commercialization Of Education

With more reliance on corporate funding, there is a greater risk that the private sector can influence the educational process and academic research. [Turk, 2000.] When external businesses are involved in the funding of research, there is a risk that these businesses will dictate to researchers. [Renke, 2000.] We run the risk of turning universities into a research arm of the private sector. [Kolodny, 1998.]

Through "matching fund" initiatives, governments ensure that industry priorities drive a large amount of academic effort. [Clark, 2000.]

There is an opportunity for post-secondary education to build a working relationship with business and industry to create educated and competent workers. The challenge is to achieve the best results for individuals, businesses, and academic institutions. [Voorhees, 2001.]

There are the following challenges for research collaboration between universities and industry:

- Different cultures and missions.
- Difficulties in negotiating and managing collaborations with industry.
- Impacts on the university's mission, reputation, and financing.
- University concerns about the loss of academic freedom. [Working Together, Creating Knowledge, 2000?]

There are the following threats from post-secondary institutions adopting a private sector mentality:

- "User pay" is replacing government funding, as governments slash their funding of post-secondary education.
- Management practices change. Presidents are chosen more for their management skills. Collegial governance is viewed as a barrier to efficiency. [Turk, 2000.]

The World Trade Organization has identified barriers to trade and investment in education. If these barriers are eliminated through negotiations, the private sector will be able to undermine the public education system. According to the trade liberalization theory in international trade agreements, if something can be provide by the private sector, then conditions should be favourable for this to happen. [Cohen, 2000.]

Competition

Universities have no choice but to develop and maintain a competitive advantage. Among institutions, there is increasing competition for funding, gifts and endowments, students, and faculty. There is also competition for excellence ~~to~~ develop outstanding programs that can rival the "name schools." [Rowley et. al., 2001.]

As universities compete with the private sector, they look more like private institutions, and their private competitors could claim equal treatment, including the questioning of grants and tax incentives. [Cohen, 2000.]

Consumer-Like Learning

There is a new, consumer-like learning that demands high-quality, customized products and services, timely response, and convenience. [Rowley et. al., 1998.]

Criticism Of Higher Education

There is a general loss of status for colleges and universities, and a questioning of the value of many degree programs. [Rowley et. al., 1998.]

Education In The Information Age

The glut of information in modern societies requires interdisciplinarity to produce syntheses of knowledge for students. Interdisciplinarity is far from the norm in universities. [Papadopolous, 1998.]

Technological change will continue at an accelerated rate. This propels economic restructuring, and changes in labour markets and job and skill needs. [Papadopolous, 1998.]

The students we educate in the 21st century must be able to understand systems, patterns, and interconnections. Higher education should teach students how to continue learning after graduation, and how to assess what they need to know to tackle any problem. [Kolodny, 1998.]

Knowledge workers must be highly educated, and their education should be more general and analytical, as they interact with a variety of people and situations, and with technical and international components. [Rowley et. al., 1998.]

Knowledge workers require regular educational updating, and so must become lifelong learners. [Rowley et. al., 1998.]

Educational institutions must help ensure that no sectors of the population are denied access to the information age. [Rowley et. al., 1998.]

Globalization

Countries are becoming increasingly interdependent ~~p~~politically, economically, and

culturally. This puts pressures on education as a driving force behind intercultural understanding and progress. [Papadopolous, 1998.]

Lifelong Learning

Countries worldwide are moving towards becoming "learning societies." Learning is becoming more critical for future progress for everybody. Higher education must develop new concepts and policies for lifelong learning. [Papadopolous, 1998.]

Market-Driven Learning

In a more market-driven environment, universities will be challenged to preserve the ability of higher education to serve a broad public purpose. [Dunderstadt, 1999.]

Needs Of Learners

There are different types of learners, with different needs:

- **Traditional learners** – Move from high school to a post secondary degree program.
- **Nontraditional learners** – Begin a degree, drops out, and returns to post secondary education later in life.
- **Traditional graduate learners** – Begin a graduate program soon after finishing the previous degree.
- **Professional graduate learners** – Want a graduate degree to increase their professional status.
- **Casual learners** – Take a class periodically.
- **Lifelong learners** – Always look for new knowledge. Need updates in certain fields, and single courses.

Universities must consider the needs of these types of learners when developing their strategies. [Rowley et. al., 2001.]

Today's students want to learn through participation and experimentation (learning as a "plug and play" experience). Institutions may have to develop collective learning experiences, with teachers as consultants or coaches. [Dunderstadt, 1999.]

New Knowledge

Higher education faces the challenge to ensure that new knowledge is continuously incorporated into curricula, and to produce syntheses of knowledge for students. [Papadopolous, 1998.]

Performance Indicators

The new performance indicators for Canadian post-secondary institutions are a serious threat to academic freedom, university autonomy, and liberal education. In 2000, performance indicators have moved from public to private; they tie universities to the private sector.

Performance indicators have made universities in Britain, U.S., and Canada very conservative, cautious about changing curricula. [Bruneau, 2000.]

Roles

Universities must redefine their roles in the Information Age, a time where they no longer control the development and dissemination of information. There is increasing competition from companies that work with information, such as Microsoft. [Rowley et. al., 2001.]

Technology In Education

Higher education must overcome the conservatism of their faculties, and produce new revenues via technology-enhanced versions of their programs. New revenues from this can reinforce the traditional campus-based environment. [Katz, 1999.]

"Technology will facilitate learning for some, but will probably inhibit learning for others, while the remainder experience no significant difference... the technology used to deliver instruction will not impact learning for better or for worse." [Thomas Russel, Director of Instructional Telecommunications at North

Carolina State University, quoted in Winner, 2000.]

Opportunities

Change

Institutions should view the challenge of change as an opportunity for renewal. [Dunderstadt, 1999.]

Connecting With The Information Age

There are opportunities for universities to make long-term connections with elements of the information age society and economy. [Rowley et. al., 1998.]

Education & Industry

There is an opportunity for post-secondary education to build a working relationship with business and industry to create educated and competent workers. The challenge is to achieve the best results for individuals, businesses, and academic institutions. [Voorhees, 2001.]

Research collaboration between universities and industry can offer benefits for both partners:

- Improvement of the quality and comprehensiveness of research.
- Reduction of the costs of research.
- Help institutions get financial support for education and research. [Working Together, Creating Knowledge, 2000?]

3. Fundamental Choices

To be drafted from the group's brainstorming.

4. Strategies & Creative Options

Strategies

Business Strategies

The following two business strategies are options for universities:

- **Low-cost leader** – Able to charge lower prices than competitors to get the same profit, or can charge similar prices and get a larger surplus margin. To do this, low-cost leaders use cost-cutting technologies, maximize economies of scale, reduce product frills, and minimize overhead and administrative expenses. Examples of ways universities can implement this strategy include online registration, employment of adjunct instructors and teaching assistants, large classroom sizes, and distance learning.
- **Differentiation** – This means to offer superior products or services, but still at a value when compared to competitors. An example is the marketing of low faculty-student ratios, the ability to know everyone on campus, and courses taught by full-time faculty. Differentiation builds customer loyalty through an image of excellence. [Rowley et. al., 2001.]

According to Miles and Snow (1978), there are four basic business strategies:

1. **Prospectors** (or innovators) – Compete by creating new products and services that establish new market niches and exploit opportunities. Respond rapidly to changing markets. Focus on product and service innovation.
2. **Defenders** (or market leaders) – Protect their market niche through high quality, better service (including customer intimacy), or lower prices. Offer a limited product or service line.
3. **Analyzers** (or followers) – Maintain their market position, but also expand into related markets after others have created them. Make less frequent product changes than prospectors.
4. **Reactors** – Businesses become a reactor by default when they do not have a meaningful strategy. Respond only when forced to by market pressures. Have no clear identity or position in the marketplace.

These business strategies can be applied to higher education. Small universities tend to be differentiated, more provider-oriented (versus consumer-oriented), and follow defender or analyzer business strategies. [Rowley et. al., 2001.]

Competitive Advantage

Sources of competitive advantage for post-secondary education are:

- Reputation.
- Curriculum and educational standards.
- Cost.
- Location.
- Student activities.
- Access.
- Receptiveness to corporate partnerships.
- Customized curriculum.
- Flexible delivery of instruction.
- Use of technology. [Blustain, et. al., 1999.]

Countering Commercialization

To counter commercialization of post-secondary education:

- Resist the idea that providing education is like "making widgets."
- Reaffirm that "measurables," like employer satisfaction ratings, should not be used to judge the education system.

- Defend post-secondary education's autonomy and integrity. [Turk, 2000.]

Education & Industry

For a successful collaboration with industry, universities require the following administrative units:

- Office of Research Administration (establishes and manages collaborations).
- Office of Technology Transfer (seeks patents and negotiates licensing agreements).
- Office of Development (does fundraising).
- Office of Corporate Relations (manages the relationship with industry, and markets the university to industry). [Working Together, Creating Knowledge, 2000?]

Focus

Universities should downsize and focus, and do fewer things well. Match the institution's strengths with the needs in the university's service area. [Rowley et. al., 1998.]

International Awareness

Post-secondary institutions should consider actively recruiting in other countries, establishing international campuses, and creating alliances with campuses in other countries that build on strengths and complement weaknesses. [Rowley et. al., 1998.]

Learning Organizations

The information age requires flexibility. Post-secondary institutions must become learning organizations, not organizations of learners. [Rowley et. al., 1998.]

As a learning organization, a university transforms, adapts to unexpected challenges, and learns what needs changing for success. Learning organizations address events as they happen, shifting direction as needed. They regularly acquire knowledge, improve the use of knowledge, evolve their processes, and assess the results of this evolution. [Rowley et. al., 1998.]

"Niching"

Post-secondary institutions should develop a focus that fits an important niche in the information age, and that also fits with the institution's distinctive character. [Rowley et. al., 1998.]

Universities should concentrate their resources on distinction. One campus can't respond adequately to all trends. Finding a distinctive niche ("niching") is the best adaptation. [Rowley et. al., 1998.]

Resistance To Commercialization

Universities must adopt a strategy of resistance to the corporate agenda, rather than accommodation. This is critical in reclaiming universities as institutions that truly serve the public. [Polster, 2000.]

Serving The Public

Universities should focus on being public-serving institutions, making knowledge available to all citizens. One example is the "science shops" in Europe, where the public can go, free of charge, for solutions to various problems. [Polster, 2000.]

Strategic Choices

When developing strategic choices, universities should consider the following three dimensions:

1. **Resources** – The amount of resources available to the institution.
2. **Institutional philosophy** – To what extent does the institution subscribe to the following two institutional philosophies?
   a) Provider Oriented: A traditional approach to creating knowledge and providing it to others.

b) Consumer Oriented: Recognize market needs and demands when designing research agenda and curricula.

3. **Risk** – Where does the institution fit in terms of risk when making strategic choices?

   Zone 1—Small resource base, provider oriented. Highest risk; lack of substantial resources, and inwardly focused.

   Zone 2 – Small resource base, consumer oriented. Moderate risk.

   Zone 3 – Large resource base, provider oriented. Lower risk. However, institutions in Zone 3 may need to become more applied and consumer oriented to avoid criticism and dissatisfaction. [Rowley et. al., 2001.]

Creative Options

Knowledge Cafeteria

Share knowledge outside degree programs through a *knowledge cafeteria* – an electronic inventory of knowledge resources accessible by anyone (access can be for a fee). [Rowley et. al., 1998.]

Module-Based Curriculum

Refocus the curriculum, and base it on the module, not the course. Basing curriculum on courses has several problems in the information age. [Rowley et. al., 1998.]

Open University Model

An open university is essentially contract learning. The student has the choice of admission, what tot study, place and time of learning, content, and mode of learning. Open universities use preproduced learning materials, and mediated interaction between students and tutors. [Rowley et. al., 1998.]

Perpetual Learning University

Create a perpetual learning university. For each learner goal, a perpetual learning university has modes and methods of learning for the required content. Learner goals can include a degree, skill, trade, personal enrichment, professional development, etc. [Rowley et. al., 1998.]

Pooling Of Resources

Pool a core of the best professors in the province (or whatever region you choose) in a central talent pool, and share them among a variety of institutions. This allows institutions to share the high cost of a top professor and the expertise of the best minds. [Rowley et. al., 1998.]

5. Historical Information

Mandate Statement

The University of Lethbridge is a Board-governed institution functioning under the Universities Act as a member of the system of Alberta universities. It offers instructional programs at the Bachelor's level in the humanities, the social sciences, the natural sciences and mathematics, within its Faculty of Arts and Science. It also awards University certificates, diplomas and undergraduate degrees in Education, Fine Arts, Health Sciences, Management and Nursing. As well, it offers a Master of Education (M.Ed.), Master of Arts (M.A.), Master of Science (M.Sc.) and a special case Doctor of Philosophy (Ph.D.). It stimulates and supports basic research and scholarly activity in all disciplines in which it gives instruction, and conducts certain lines of applied research of special relevance to the region or to the province.

The University offers collaborative programs with various community colleges, including post-diploma degrees in Agricultural Studies, Environmental Science, Fine Arts, Management and Nursing. It encourages, through its Management, Education and Arts and Science Faculties, active development of educational opportunities in Native American Studies for Native American students through off-campus and on-campus programs.

The University of Lethbridge provides non-credit continuing education programs throughout the region. It also supports artists' workshops and in general makes available its cultural programs and facilities as well as its athletic facilities to the wider community in which it is located.

Approved by the University of Lethbridge Board of Governors
June 22, 2000

Mission & Vision

In transmitting and advancing higher learning, the University of Lethbridge endeavors to cultivate human values, intellectual growth, social development, aesthetic sensitivity, personal ethics, and physical well-being.

The University of Lethbridge operates under a strategic framework that guides planning, and provides overall direction for the future. The Board of Governors has set a number of objectives for the University, including the following:

- To enhance learning at all levels of university education, including undergraduate and graduate education.
- To develop and maintain academic and research excellence.
- To recruit and retain excellent faculty.
- To strengthen recruitment and retention of students.
- To be a leader in the use of information technology to expand the capacity to learn.
- To provide a rigorous and stimulating environment for research.
- To enhance the learning environment by improving and maintaining capital facilities.

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