Assignment #3

Government Report on E-learning policies

Jennifer Bos
55634000

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To the Honorable Amrik Virk, Minister of Advanced Education

The following report has been prepared in response to your query on the role, if any, of government in:

- The establishment of provincial policies for e-learning
- Regulations or encouragement of for-profit e-learning programs from outside of British Columbia

British Columbia has a world-class post-secondary education system, delivering services to students, families and communities across the province. In the coming year, more than 440,000 students are expected to enroll in at least one course at British Columbia’s public post-secondary institutions. The number of full time equivalency (FTE) spaces has increased nearly 23 per cent from 149,000 in 2011/12 to 183,000 in 2013/14, with 2,500 new graduate spaces having been made available over the last five years (Ministry of Education Factsheet, 2013). This past year B.C. taxpayers will have invested a record $1.9 billion into post-secondary education, which includes $460 million earmarked for capital investments on campuses. Students at B.C. post-secondary institutions currently pay the 4th lowest tuition in Canada, having been capped at a two per cent annual increase. These tuition fees cover less than one third of the cost of a post-secondary program.

British Columbia’s demographics are changing, with an aging population, a shrinking workforce and a predicted 4 percent decrease in the number of people aged 20-24, (Ministry of Advanced Education, 2013) the post secondary education
system will have to adapt to the requirements of an evolving population. Labor market forecasts indicate that in the next ten years, 80 percent of all new jobs will require post-secondary education and that the province will be unable to internally meet demand for skilled and educated labor (Ministry of Advanced Education 2009). In order for the province to remain competitive, it will be important to align British Columbia’s post-secondary system with the changing needs of the labor market.

“People in British Columbia must have the knowledge and skills to compete effectively in the global economy and to build prosperous and sustainable communities”.

(Ministry of Advanced Education, 2009)

This report will attempt to assess a number of British Columbia’s current technology initiatives including BCcampus, The Premier’s Technology Council and the Online Program Development Fund as well as provide recommendations for e-learning that will help keep British Columbia competitive in an evolving knowledge-based society.

Jennifer Bos
Deputy Minister
Ministry of Advanced Education
Introduction - Ministry of Advanced Education Vision and Framework

The Ministry of Advanced Education works towards a vision of excellence in innovation, strong communities and bright futures. This is done with the three strategic priorities of the government in mind:

- Jobs and Economy,
- Families First, and
- Open Government and Citizen Engagement  (Ministry of Advanced Education, 2013)

The following framework was published by the Ministry of Advanced Education in the updated Service Plan 2012/13 – 2014/25, and should provide a framework to help inform their decisions.
VISION
Excellence in innovation, strong communities and bright futures.

MISSION
We champion innovation, inclusive communities and an integrated post-secondary education system to maximize benefits to all British Columbians.

GOAL 1 (Students)
Students are empowered and supported to achieve their education, employment and training goals.

OBJECTIVES:
1.1 Align post-secondary education training and programs with labour market demand to achieve a highly skilled workforce.
1.2 Respond and adapt to the diverse and changing educational needs of students.
1.3 Increase participation and successful completion of all students.

GOAL 2 (System)
A quality post-secondary education system that provides B.C. with a global competitive advantage.

OBJECTIVES:
2.1 Achieve a shared vision across our world class system.
2.2 Develop a highly internationalized education system.
2.3 Build on current strengths to enhance the quality of post-secondary education.
2.4 Increase collaboration, innovation, and partnerships.

GOAL 3 (Communities)
British Columbians value diversity and inclusiveness in our communities.

OBJECTIVES:
3.1 Celebrate B.C.'s rich diversity as a source of innovation and global networking.
3.2 Collaborate with our communities to challenge barriers to inclusivity.
3.3 Leverage partnerships to encourage a culture of inclusivity.

GOAL 4 (Society)
An innovative approach to education, research and development that values creativity and maximizes return on investment and quality of life.

OBJECTIVES:
4.1 Support the creation of new ideas and solutions to a range of economic, social, scientific and environmental issues.
4.2 Foster knowledge development.
4.3 Lead a post-secondary education system that is strong, accountable, transparent and delivers value.
4.4 Use and provide quality information for decision making and better societal outcomes.

FOUNDATION (Employees)
A supportive environment and a sense of shared purpose that builds on our strengths and transcends change.

(Ministry of Advanced Education, 2013, p. 10)
**Rationale for E-learning**

In addition to the most recent published goals, accessibility and quality of education were two of the key values set out in the 2009/10 Service Plan by the Ministry of Advanced Education. Objective 1.2 was to provide accessible and affordable post-secondary education throughout the province so that barriers such as financial or geographical limitations were minimized, while objective 1.3 was to provide a high-quality learning environment meeting standards of excellence. (Ministry of Advanced Education, 2009) According to Dr. Tony Bates, e-learning does just that. The main instructional reasons for using the Web itself are access, flexibility, opportunities for international, cross-cultural and collaborative learning and ease of creating and organizing materials (Bates, 2001).

With the changing student demographics in the province, e-learning has the ability to improve access to people across the province. Distance education has the potential to afford farmers, working professionals and those who cannot afford to move to campus, away from their homes or jobs, with the ability to complete post-secondary courses. This aligns with the Ministries current goal of empowering and supporting students with their education, employment and training goals.

E-learning has the potential to increase the quality of education beyond the traditional transmission method of teaching. According to constructivist models of learning, the learner constructs knowledge by assimilating experiences to their
prior knowledge or by accommodating existing knowledge to new experience (IJEDICT, 2009). One of the main benefits of e-learning is that it allows increased interactions in on-line discussion forums, thus facilitating critical thinking and active learning. Another advantage is that it allows for educators to diversify their teaching methods and accommodate different audiences (Bates, 2001). E-learning affords learners the opportunity to gain skills and knowledge that are more in line with ‘real world’ activities, better preparing them for the potential employment they will enter. As we will see further in this report, e-learning may not reduce the cost of education, however it does stand to help to increase the overall quality of learning.

Until recent years, resource industries drove British Columbia’s economic growth, however we are now transitioning towards a knowledge-based economy. Economic development is strongly linked to the ability of an education system to adapt to the changing needs of the knowledge-based society (Bates & Sangrà, 2011) and yet a large number of post-secondary institutions still retain many of the features of an industrial organization. Students need to learn how to use technology to seek, organize, analyze information in contexts similar to what they would experience in real-world professions.

“We need a highly flexible and adaptable workforce that can continually change as the world changes around them. Thus the new knowledge based industries require not only technology skilled workers, with up-to-date and recent knowledge, but also
workers who are constantly learning, in order for such companies to compete effectively”. (Bates, 2001, p23) Workers in knowledge-based industry must continue to learn throughout life and e-learning is an ideal mode of delivery for lifelong learners.

**Importance of Policies for E-learning**

In defining the role of government, there must be a balance struck between their involvement in technological change and the autonomy of universities. While it is important for the Ministry to set the overall strategic direction of the post-secondary system, they are not necessarily in the best position to micromanage complex organizations such as research universities (Bates & Sangrà, 2011).

However, considering the government’s monetary investment into public post-secondary institutions, in addition to the obvious desire to grow B.C.’s economy, it is important that government does have a clearly defined role in managing the change in post-secondary education. Some of the most common roles that governments are currently taking are:

- Deregulation and streamlining the planning and oversight process
- Stimulating best practice and choice
- Enabling, funding and brokering partnerships
- Creation of utilities or technology networks
- Informing and protecting consumers
- Investing strategically on behalf of the state and its under-served customers (Bates, 2001)

If the government is to remain competitive in an increasingly global society, where their citizens can take a course from anywhere in the world it will also be important to establish the government's role within the global post-secondary community. Standards will need to be established and a plan for encouraging globalization will be important if British Columbia is to remain leader in education.

As the Ministry moves forward in setting its policies for e-learning, they will need to focus on the following factors when deciding on best practice:

- Student’s likely access to technology
- The overall costs, including overheads of both face to face teaching and e-learning
- The benefits and disadvantages of different methods of delivery
- The appropriateness for national economy.
Current Government Initiatives

The Ministry of Advanced Education currently has a number of initiatives that are helping to promote e-learning and the integration of technology into the post-secondary education system, the most prominent being The Premier’s Technology Council (PTC), BCcampus, Educational Technology Users Group (ETUG) and the Online Program Development Fund.

Formed in 2001, the PTC is charged with providing advice to the Premier on all technology related issues in British Columbia. This committee, formed of members from the private sector as well as academia, believes that the province needs to build a knowledge-based society, and that collaboration between government, academia and industry is key for this to be successful. In 2004, the PTC held a highly successful e-learning roundtable to share best practice, discuss e-learning issues and make recommendations on how e-learning initiatives can be supported to expand quality educational service (B.C. Government, 2013).

ETUG is a grassroots group of post-secondary professionals, instructors, learners, academic and technology administrators whose core value is to provide a community that thrives on the sharing of ideas, resources and ongoing professional development (Educational Technology Users Group, 2013). They are funded by the Ministry of Advanced Education, Innovation and Technology and supported by
BCcampus. They will be holding an event to explore the perceptions in quality of education on November 15th, 2013.

The mandates of both the PTC and the ETUG work towards the goal of building a quality, world-class post-secondary education system, helping to create a shared vision, increasing collaboration, innovation and partnerships. Using a collaborative process, with all levels of stakeholders included in discussion and policy development, is one of the ways that government can prepare themselves to be competitive. By continuing to provide funding to these committees, the government is stimulating best practice and choice amongst its public post-secondary institutions.

BCcampus is a publicly funded organization facilitating the distribution of best-practice knowledge, providing professional learning opportunities and communities of practice, and managing a collection of shareable online instructional resources (BCcampus, 2013). These resources target both educators (ex. SCoPE, a community surrounding educational research) and students (ex. ApplyBC, an online tool that lets students apply to post-secondary institutions across the province). Like PTC and ETUG, BCcampus encourages collaboration and best practice at the institution and educator level, but it goes beyond by empowering students as they work to achieve their education, employment and training goals.
Originally under the auspices of BCcampus, the Online Program Development Fund (OPDF) was repurposed into Canada’s first publicly funded open textbook development project in 2012 (The B.C. Open Textbook Project, 2013). The government of BC announced at that time that they would be creating open textbooks for 40 of the highest impact first and second year courses in the province’s public post-secondary system. This particular initiative is one that directly coincides with the strategic plan’s goal of increasing student access to post-secondary education. While students in British Columbia do pay some of the lowest tuition in the country, cost is certainly still a barrier for many. While it may not be feasible to reduce tuition fees, as they cover less than a third of the actual cost already, reducing the additional costs such as textbooks may help to increase access for students.

**Recommendations for Encouraging the Implementation of E-learning**

It has previously been established that we are moving towards a knowledge-based society and that in order to remain competitive British Columbia will need to align its post-secondary system with the needs of the labor market. E-learning has the capacity to do this as it provides the access and flexibility, while at the same time providing a learning environment where students can learn the skills they will need in practical situations. It is an ideal mode of delivery for lifelong learners; a market that has become quite attractive to the private sector (Bates, 2001). Yet despite the increasing awareness of its importance, there still seems to be a relatively slow
take-up of e-learning at some post-secondary institutions (Bates & Sangrà, 2011).

The following section of this report will provide a number of recommendations for ways in which government can influence the use of e-learning at post-secondary institutions.

While the government has very clear policies surrounding the certification of teachers at the K-12 level of the education system, the same is not true of post-secondary, with the majority of faculty having no formal training in teaching methods. Yet if we expect faculty at post-secondary institutions to provide students with e-learning that will prepare them for a knowledge-based society, some sort of systematic training will be required. Were the government to require institutions to provide initial and continuing training for all post-secondary instructors, it would be the ideal opportunity to provide them with best practice and methods surrounding the use of e-learning.

It is understandable that there would be resistance to this idea from institutions, as the idea of taking six months to a year out of a research degree may not be ideal. Yet, while it may increase the cost of a research degree, it is still cheaper than expanding learning technology support units (Bates & Sangrà, 2011). Because the economic stakes are high, it is going to be important for the government to drive this systematic change. There are two avenues that the government could take in order to do this. Being the main funding agency for public institutions, they would have the power to withhold funds for institutions not providing this training.
However this does run the risk of loosing teachers to other provinces where it is easier to teach. The other route would be to refuse financial aid to students attending universities where its instructors have not taken an approved training program. This is likely the “softer” option making student choice the incentive for universities to implement change. In order to minimize the overall impact on universities, the recommendation would be to implement this change in stages over five years. For instance, the measure of an “acceptable” institution could be along a sliding scale where 10 percent of teachers were required to be trained the first year, 20% the second and so on (Bates & Sangrà, 2011).

In 1993 and 1994, the provincial government withheld 2.5% of operating grants, to be reclaimed by universities upon production of proposals for innovative teaching. At UBC this equated to $2.1 million and this process spurred a decade of developments in the use of technology for teaching and learning (Bates & Sangrà, 2011). It has now been 20 years since this took place and it may be time to consider doing it once again. Even if it is a relatively minor part of the operating grants, and it may not cover the true cost of implementing e-learning, at very least it will bring people to the table to start looking at how better to implement technology for teaching and learning at a relatively low cost to government.

An issue often encountered as institutions seek to create courses with some degree of e-learning are the high up front costs of creating the course. One of the ways around this is a model that has been used at the University of British Columbia.
UBC borrows from ‘soft funds’; money that is earmarked for future projects but currently sits in bonds, in order to provide the start up money for a cost recoverable program. When tuition fees are paid the bond is first paid back, and then subsequent tuition fees cover the ongoing costs of maintaining the program. At times government regulations can impede or prevent the running of cost-recoverable programs. The Ministry of Advanced Education should conduct a review of the provincial regulations to ensure that this model is one that can be used more widely by the province’s post-secondary institutions. It is also the recommendation of the author that the Ministry should evaluate the terms of the bonds and ensure that there is no disincentive due to financial implications with the banks. Upon evaluating the terms, the Ministry may be able to use its “bulk buying power” to create incentives to post-secondary institutions who use these funds for the implementation of e-learning.

One of the objectives set out in the 2013/14- 2015/16 Strategic Plan is to leverage partnerships in order to foster a culture of inclusivity. These partnerships should be both inter-institutional as well as between post-secondary and industry. British Columbia has already begun breaking down barriers between institutions with collaboration between UBC, SFU, UVic and the OLA, the variety of services provided to students via BCcampus and UBC’s partnership with a Mexican University in order to produce post-graduate courses. These partnership help to share costs, fight off perceived competition for students and to avoid unnecessary duplication within the system (Bates, 2001) and it should be the Ministries policy to encourage and
Partnerships with industry have the ability to enhance post-secondary education in a number of ways. As seen in the partnership between UVic and Wesley Clover, it has the potential to provide real world experience graduate students. The program promotes entrepreneurship for students in computer science and engineering, and while Wesley Clover does not contribute financially to the program, they will invest in a start up company if the program develops a viable prototype (B.C. Government, 2013). In other instances universities have partnered with companies such as Apple, AT&T, Cisco, IBM and others, who help to alleviate some of the high start up cost of technology. Companies such as Cisco also have a history of helping maintain the technology and support the program beyond the start up phase. This can be quite beneficial, as often institutions struggle to maintain a program after the initial grant or the short term funding has ended. As government seeks to align post-secondary with the knowledge based economy, it only makes sense that there should be a strong emphasis on continuing to foster these relationships with these companies.

Because of the increasing globalization of education, students are now able to take courses from almost anywhere in the world. Online institutions such as Coursera have partnered with universities and organizations from around the world to provide courses for anyone to take, for free (Coursera, 2013). While it is encouraging that education opportunities are so accessible to students, the
government should not sit by passively. Like any public post-secondary institution, standards and performance measures must be put in place and the accreditation process must occur just as in any other program. Governments will not be able to prevent the influences of foreign e-learning programs, so according to Dr. Bates, the best strategy will instead be to meet the competition from the outside by building strong internal e-learning programs through the existing public sector (Bates, 2001). In fact, if British Columbia is successful in developing strong internal programs, it would be beneficial to market them in a greater way to the global market. Attracting internationals students into B.C.’s courses has the potential to help to recover some of the development costs.

**Governments Role in Telecommunications**

According to Bates, if the Minister of Advanced Education’s policy is to develop a knowledge based economy, then they must work closely with the Minister in charge of government policy and regulation for telecommunications (Bates, 2001). If e-learning is to succeed then there must be an accessible and low cost telecommunications infrastructure. Fortunately for B.C. by 2008, 92 percent of residents had access to affordable, high-speed broadband services, making the province one of the most connected jurisdictions in North America (B.C. Government, 2013). Compared to many other places in the world, British Columbia’s technology infrastructure is developed enough that their focus should not be on development, but instead it should be on moderating the affordability.
The government can use its “clout as a major corporate client” and by services in bulk from a single carrier. This has the effect of driving down the cost of telecommunications and keeping it accessible for British Columbians. It also affords universities with the technical knowledge to set themselves up as an ISP.

**Conclusion**

Each of the recommendations in this report helps to support the Ministry of Advanced Education's vision of innovation, strong community and bright futures. As our economy shifts increasingly towards knowledge-based, the Ministry will need to make e-learning a key priority if they are to remain competitive in global markets. By working collaboratively between government, post-secondary institutions and industry to develop strong policies and programs, British Columbia can expect to build a strong presence in the global e-learning community and remain a leader in international markets.
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