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NEWS RELEASE

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Ministry of Advanced Education, Innovation and Technology

B.C. to lead Canada in offering students free, open textbooks

VANCOUVER – British Columbia is set to become the first province in Canada to offer students free online, open textbooks for the 40 most popular post-secondary courses.

Up to 200,000 B.C. students each year could benefit from this move under B.C.'s Families First Agenda, saving each student hundreds of dollars a year or more on textbooks – money that can go toward other learning supplies or living expenses.

An open textbook is typically published under an open licence and can be read online or downloaded at no cost. If a printed copy is desired, the book is made available for printing at a fraction of traditional textbook costs. Because the open textbooks are digital and open, they can be modified and adapted by instructors to fit different classes.

Open textbooks are part of a growing movement worldwide supporting Open Education Resources, which takes advantage of the Internet (making information sharing easier) and open licences (which extend the rights to use, reuse, revise and share material).

Government will work with post-secondary institutions in implementing an open textbook policy in anticipation they could be in use at B.C. institutions as early as 2013-14, supporting students taking a variety of courses in areas like arts, sciences, humanities and business.

The open textbooks are expected to be created with input from B.C. faculty, institutions and publishers through an open Request for Proposal process co-ordinated by BCcampus, a publicly funded organization that aims to make higher education available to everyone through the smart use of collaborative information technology services. Educators will continue to have the option of using other teaching materials in developing curriculum and teaching classes.

This is the latest step announced under the Families First Agenda for British Columbia, which helps make life more affordable, support vulnerable families and keep communities safe.

Quotes:

John Yap, Minister of Advanced Education, Innovation and Technology –

“By taking advantage of technology, more people can get the learning they need in the knowledge economy and access to new or better jobs. This innovative step under B.C.’s Families First Agenda, is an example of how our government is making our world-class education system even better, while increasing accessibility and affordability for students and their families.”

“British Columbia is proudly leading Canada in committing free, open textbooks to students and joins other international jurisdictions in taking a leadership role that puts technology to work for students.”

David Porter, executive director, BCcampus –

“BCcampus is leading the way on Open Educational Resources – OER – in Canada. We believe the goal of higher education is the creation, dissemination, and preservation of knowledge, and as a system agency co-ordinating collaborative online learning services, we have an essential role to play.”

“BCcampus is in a unique position to develop and support the virtual space for educational innovation to happen across B.C. post-secondary system, and we are well-positioned to co-ordinate the BC Open Textbook project.”

Dr. Cable Green, director, Global Learning, Creative Commons –

“B.C. is leveraging 21st century-technologies and licensing to ensure its citizens have affordable access to high-quality post-secondary textbooks. Open licensing on publicly funded content ensures the greatest impact for the public dollar.”

“Canada has long been a leader in online learning and Open Educational Resources; it will now lead in the creation and open sharing of high quality textbooks. Creative Commons congratulates the B.C. government for its vision and leadership and stands ready to assist.”

Alan Shaver, president and vice-chancellor, Thompson Rivers University –

“Given the explosion of high-quality Open Education Resources – OERs, led by some of the best universities in the world, it’s clear that many people are looking to these resources to advance their education. Providing key textbooks online not only helps students enrolled in distance and on-campus programs, it also complements other OERs projects in helping learners access the wealth of online learning resources for self-development in a way that assures excellence in learning outcomes.”

Terry Lake, B.C. Minister of Environment –

“Open textbooks are an innovative way to support B.C.’s green initiatives while lowering our carbon footprint. As well, having the option of accessing the books online will save students money that they can use for other priorities and expenses.”

Quick Facts:

- It is estimated students spend between \$900 and \$1,500 per academic year on textbooks. Open textbooks reduce this to around \$300 or less when printed books are needed – or \$0 for e-copies.
- Open Educational Resources (OERs), like open textbooks, provide workers with easy access to training materials needed to find employment or upgrade skills.
- OERs also have significant benefits for educators and post-secondary institutions, allowing professors to more easily incorporate a teaching module designed by a colleague directly into their course, and materials shared between provinces, or worldwide, with savings for taxpayers in public dollars spent on the development of programming and curriculum.
- Since 2003, the B.C. government has provided \$9.5 million for the BCcampus Online Program Development Fund which supports the development of online courses, textbooks, manuals, videos and other learning materials. Once completed, these materials are licensed and uploaded to the Shareable Online Learning Resources repository (SOL*R) at BCcampus where public post-secondary educators can share online learning resources for free. OER textbooks developed under this new program will be made available in SOL*R to everyone.

Learn More:

- To read The Families First Agenda for British Columbia, share your ideas or provide feedback, visit: <http://www.familiesfirstbc.ca/>
- To learn more about BCcampus, visit: <http://www.bccampus.ca/>
- To learn more about the Open Education 2012 Conference, underway Oct. 16-18 in Vancouver, visit: <http://openedconference.org/2012/>

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Connect with the Province of B.C. at: www.gov.bc.ca/connect

**MINISTRY OF ADVANCED EDUCATION,
INNOVATION AND TECHNOLOGY
AND MINISTER RESPONSIBLE FOR MULTICULTURALISM
DECISION NOTE**

Date:	October 15, 2012
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PREPARED FOR: Honourable John Yap
Minister of Advanced Education, Innovation and Technology
and Minister Responsible For Multiculturalism

ISSUE: Potential Policy/Initiative for Open Text Books for the 40 Most Popular First and Second Year Courses.

BACKGROUND:

Open text books are educational materials that are made freely accessible. That is, they can be used, reworked and revised by anyone - students and instructors. Most often, they are available for use via the internet. Open text books are one aspect of a broader open educational resources approach that also includes curriculum and other resources.

Open text books increase affordability of post-secondary education for students. Rather than buying a high-priced text book, students can download at no cost the full text or the chapters they require from an open text book repository. Alternatively, they could print on demand at a significantly reduced cost.

Washington State and California have recently implemented open text book initiatives for high enrollment courses. There are currently no such broad-based, Government led and supported initiatives underway in Canada.

High enrollment courses are typically introductory courses offered in areas such as Arts, Sciences and Business. These include courses like introduction to psychology, sociology, history, and english, introductory accounting, basics of micro- and macro-economics, basic first year physics and chemistry, and introductory calculus and algebra. Washington State has also included some high enrollment upgrading courses, such as "Pre-College English".

DISCUSSION:

In order to increase affordability of post-secondary education for a large number of students, British Columbia could become the first jurisdiction in Canada to adopt a large-scale policy to develop and make available open text books. These text books would use a creative commons license¹ and so would be freely available to anyone, anywhere. This would be a government initiative that would be managed by BCcampus, a government funded agency that provides system-wide services.

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¹ Creative Commons licenses give authors a standardized way to grant copyright permissions to their creative work. They let others distribute, remix, tweak, and build upon the author's work, even commercially, as long as they credit the author for the original creation.

This policy could focus on developing open text books for the 40 most popular first and second year post-secondary courses in British Columbia. If successful, this initiative could be expanded beyond those 40 courses in future years. The open text books would be available free of charge to students who can choose read or download them online. If a print copy is desired, there would be a nominal cost, but a requirement could be set that the cost of the text book must not exceed \$30 (the estimated cost of a high quality, bound, print-on-demand copy).

Business Case:

The proposed open text book policy/initiative would offer students significant savings, increasing the affordability of their post-secondary education. Currently, students taking a full course load spend about \$1,500 per year on text books (between \$100 and \$200 per text book). Under an open text book initiative, their costs would be reduced by approximately 80 percent (if they choose to print) or to zero (if they choose only to download).

Washington State has budgeted approximately \$1.18 million per year for two years to publish open resources for 82 courses. So far, Washington has completed 42 courses and from these it is estimated that students have already saved about \$1.26 million in text book costs in one year. The direct savings through open text book initiatives go to students; they are not accrued to government.

However, both government and the post-secondary system do realize savings through the shared development aspect of open text books – one set of funded resources being developed and updated. There is also potential for reduced levels of student financial aid.

Process:

The Ministry, working with BCcampus, will determine the top 40 courses for this initiative, drawing on information from the Central Data Warehouse, data from the research universities, discussions with institutions, as well as review and analysis of the process and outcomes from Washington State.

An open Request for Proposal (RFP) process (not dissimilar to the current process used under the Online Program Development Fund coordinated by BCcampus) would be used to ensure that stakeholders (e.g., faculty, publishers, or other experts) are given fair and equitable opportunity to participate in the development of the material. Priority areas for development of open text books would be pre-defined and articulated in the RFP process and criteria. Resulting contracts would essentially be “fee for service” arrangements.

The process could be coordinated and overseen through existing mechanisms through BCcampus. A subcommittee of the BCcampus Strategic Council², with representation from the sector broadly, as well as from government, could be established. The duties and responsibilities of this sub-committee could be modelled after the California Open Education Resources Council and would ensure that the processes used will produce open text books that meet rigorous quality assurance standards. Examples of the quality control process could include review of proposals by British Columbia faculty and instructors, and peer review of the text books once they are completed. The open text books could even be piloted in lecture halls before they are approved for general use.

² The BCcampus Strategic Council consists of two representatives from research universities, two representatives from teaching universities and institutes, two representatives from colleges, and two Ministry representatives. The Executive Director of BCcampus also sits on the Council as an ex officio member.

Capacity:

Capacity for storage and dissemination exists through BCcampus' current repository for open resources – SOLAR – which is similar to an open library. It can be customized to accommodate the open text books as they are developed and expanded to permit greater access to the resources.

Copyright and Intellectual Property:

Copyright for the open text books could be ensured through the Creative Commons using the "attribution by" license, also known as CC BY. This is the most open and accommodating license. The CC BY license requires that anyone using, adapting or revising an open text book has to credit and acknowledge the original author(s) of the book. The Creative Commons licensing regime is recognized by courts as providing copyright protections for authors.

The Creative Commons license ensures that faculty or instructors who develop open text books retain ownership and copyright of their intellectual property. Since the open text books would be developed through a "fee for service" contract, there should be no impact on the intellectual property rights that faculty have through their collective agreements with their institutions. In addition, because the Creative Commons ensures the authors retain ownership, there is nothing precluding the author from also taking their work to a publisher should they so choose.

Current British Columbia Example to Build and Learn from:

British Columbia has already developed one open text book for an Information and Communication Technology course. It is currently being taught for the first time at College of New Caledonia, Northern Lights College, Northwest Community College and Yukon College. While still in early stages of implementation, it provides a solid foundation from which to build a broader base of resources.

Conclusion:

British Columbia, and BCcampus, has been a leader in adopting open education resources in Canada. This policy approach would position the Province, not only as a leader in Canada, but as a leader in North America, joining states such as Washington and California to be among the first adopters of broad-based open text book initiatives.

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OPTIONS:


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RECOMMENDATION:

Option 1: Undertake an open text book initiative for the 40 most popular first and second year courses.

☒ Approved / ☐ Not Approved


Honourable John Yap

Date: OCT 15 2012

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Concept Paper

Date: 04/10/2012

Issue: Introduce Open Text Books for BC's 40 most popular courses

Description:

British Columbia, following the lead of Washington State and California, could become the first province in Canada to introduce open text books.¹

The initiative would, at the outset, focus on open text books for the 40 most popular post-secondary courses in British Columbia, with expansion beyond the 40 possible in future years. Open text books would be available free of charge to students who choose to read or download the text online. If a print copy is desired, a requirement would be set that the cost of the text book would not exceed \$30 (this is for high quality, print of demand and binder).

Currently, the cost of individual text books varies, with the average cost approximately \$100-\$200 per text. Each year, a student pays about \$1,800 for text books.

Impact: All students enrolled in BC's 40 most popular courses (estimated at between 100,000 to 200,000 students)

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Benefits:

- Affordability – significantly reduced costs for students²
- Accessibility –

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- May facilitate easier and more efficient credit transfer, if institutions are teaching a common open education resource-based curriculum, i.e., transfer should be automatic between the participating institutions.

Considerations:

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¹ An open textbook is a textbook published under an open license, offered online by its author(s) or through a non-profit or commercial open-licensed publisher. The open license sets open textbooks apart from traditional textbooks by allowing users to read online or download at no additional cost, or print at a significantly reduced cost.

² Washington State estimates that its \$1.18 million investment has saved students about \$1.2 million in textbook costs in the first year alone.

Concept Paper

- It may be possible to reduce implementation costs by adapting existing open education materials, rather than developing new materials. For example, given that Washington State has likely focused on many of the same courses as BC would want to include, it may be possible to use the Washington State materials and adapt them to fit specific BC learning outcomes.
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Open Textbooks – Technical Questions and Answers

What are open textbooks?

- Open textbooks are textbooks, workbooks and other supporting materials that are freely available for use, reuse, remixing and redistribution by educators and students, without an accompanying need to pay royalties or licence fees.
- Covering a wide range of disciplines, open textbooks are freely available, under an unrestricted license, to download and print in various file formats from open educational resources repositories. Many organizations and institutions provide access to open textbooks through their websites.
- An open textbook is a body of educational content that is openly available over the web or in a book store with a reuse license that allows copying and distribution or, with the most open license, allows modification of the content and even sale.

What about copyright? How does it impact open text books?

- A key aspect of open text books use is the set of rights afforded by “open licenses,” such as those provided through Creative Commons (CC) licenses.
- Authors of open textbooks make their own decisions about open licensing of their content. Several different open licensing options are available such as from Creative Commons
- CC licenses work WITH copyright. The author still holds copyright and assigns specific uses through Creative Commons licenses. The CC license permits others to distribute, remix, tweak, and build upon the author’s work, even commercially, as long as they credit the author for the original creation.
- CC licenses extend rights from copyright holders to others in society who would like to make use of existing works such as textbooks that can be freely reused in educational settings. Specifically four areas of practice are covered by CC licenses. They are:
 - Reuse: the right to reuse content in its unaltered, verbatim form
 - Revise: the right to adapt, adjust, modify or alter the content itself
 - Remix: the right to combine the original or revised content with other content to create something new
 - Redistribute: the right to make and share copies of the original content, revisions, or remixes with others (Wiley, 2010)
- In other words, by using Creative Commons licenses, advance permission is given by the developer (owner, copyright holder) to all users to freely access the textbook. The author or developer is simply saying, here’s the text book I’ve created - use it, change it, combine it with anything else and share it with others free of charge. The only thing I ask is give me credit for developing it and whatever you do with it give others the same permission to use it.
- In the past, seeking copyright permission was the only way one could legally use a resource written or developed by someone else. And it was usually a one to one or one to a few relationships, i.e., one person asks another person (the publisher) for permission to use the textbook. Each person wanting to use the textbook must do the same thing. By giving USE permission up front and making the textbook open, the copyright owner has eliminated the need for anyone who wants to use the resource from having to contact him or her.

Why would faculty or researchers want to produce or use open textbooks?

- Open textbook authors are no different than commercial textbook authors, with one exception - open textbook authors share their knowledge with students freely in order to increase accessibility, and significantly reduce cost to the student.
- Some authors are hired by a school or foundation to write open textbooks for some particular reason or for a particular group of students. Most open textbook authors use the Creative Commons attribution only or attribution-share-alike license.
- Overall, introduction of open textbooks can create more opportunities for faculty who wish to publish commercial material, because faculty who wish to write commercial (for sale) material will be able to leverage open content by providing commercial (for sale) addendums to that open content.
- If the textbooks that are available for sale have a reasonable price, there will be little impact. However, if you can buy a printed version of an open textbook for \$20 when the equivalent commercial version sells for \$120, it will cause people to change.
- Availability of open content and textbooks can potentially increase class enrollments by providing students with free (online) or low cost (print-on-demand) open content. Thus, students who have traditionally not been able to enroll in a course because the textbook cost is too high, will no longer encounter that barrier.

Why would anyone invest in the expensive development of new and innovative textbooks – why not just sit back and wait for someone else to do it and then use it for free?

- Some will do just that, but so what. Washington State and California are developing open textbooks. Obviously there are jurisdictions, institutions, teachers and professors that think open textbooks are the future. It is usually cheaper to use what someone else has developed and then modify it or add to it to make it more suited to your own curriculum.
- However, if a textbook truly has potential to be used for commercial gain, then the author(s), who retains copyright ownership via Creative Commons, can work with a publisher to produce a commercial enhancement. The encouragement of open textbooks does not preclude the option for commercial gain.

Are open textbooks inferior in quality?

- No. Just like any resource material, there is varying quality. Many open textbooks are paid for by institutions, governments and foundation grants. They ensure the textbooks they are paying for are of high quality, just like the process used today for development of any educational resource. For example, Rice University has established OpenStax College where open textbooks are provided for introductory physics and sociology courses. These textbooks are peer reviewed just like other conventional publications, but they will also be open to anyone to use.
- As more institutions around the world are requiring their educators to share materials under open licences, experiences clearly demonstrate that this opening of intellectual property to peer scrutiny is having the effect of *improving* quality of teaching and learning materials. This happens both because educators tend to invest time in improving their materials before sharing them openly and because the feedback they receive from peer and student scrutiny helps them to make more improvements.

How do we control quality in an open textbook world? If anyone can contribute anything, how do we know if it's reliable?

- There is essentially no difference in the faculty vetting process carried out for open textbooks, compared to commercially published textbooks. As with all textbooks, open textbooks vary in quality. Faculty selection of open textbooks, as in the selection of commercial textbooks, is often a collaborative process driven by departmental faculty. Quality of a particular open textbook can be determined in several ways: 1) recommendations by faculty who have used the open textbook, 2) vetting by faculty reviewers, and 3) faculty use of review guidelines created to standardize the open textbook review process.
- Instructors, teachers, professors are expected to check the quality of the materials they are using and this is true of conventional textbooks as well as open textbooks.
- By far the greatest check is peer review once it's made available online for the whole world to see. If there are inaccuracies or misinformation they will be quickly identified.

How could our institutions support open textbooks?

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- At this time, we are only implementing open textbooks with targeted funding from the government. Institutions can expand this initiative using their own operating funds to provide open textbooks or other resources to the public.

Is there really a cost savings?

- Commercial textbooks often cost more than a hundred dollars and in some cases more than two hundred dollars each. Open textbooks, or just the portion a student needs, by contrast, can be printed directly by students for the cost of printing and binding at much lower prices, typically less than \$50 each. Many open textbooks programs are using \$30 as a threshold for open textbook print editions. Alternatively, students can keep their open textbooks as e-versions and pay nothing.
- In addition, there is potential savings through the shared development aspect of open text books – one set of funded resources being developed and updated. There is also potential for reduced need for student financial aid.

How do we ensure open textbooks are kept current and up to date?

- Open textbooks can be kept up to date in two ways –formally or informally. The advantage of the open textbooks is that it allows for informal improvements which the traditional textbook does not permit.
 - Like traditional textbooks, open textbooks can be formally updated on a periodic basis. However, with open textbooks the process is easier. The original authors do not have to be involved, other subject experts could get involved; all that needs to occur is the original authors have to be acknowledged in the updated version.
 - Because these textbooks are open for revision and remixing, it is expected that they will be updated by interested faculty and instructors voluntarily without a formal process. These changes may be more than just updates, they might include improvements based on student feedback, or changes to meet different course outlines taught by other instructors. The advantage of open textbooks is that anyone can change them to suit their purposes, including updating them. The updates can then be shared informally across the system.

Questions and Answers for BC's Open Textbook Initiative

Why open text books?

- In the Canada and around the world, costs are placing limits on all levels of education that can result in schools using out-dated technology and/or inadequate teaching materials. In the US, college textbook costs now surpass tuition fees at some community colleges. There's a huge demand for high quality, affordable education opportunities – and a very limited supply. Open textbooks are an important part of the solution.
- Open textbooks are more affordable than commercially available textbooks; this permits student education budgets to stretch further, thus giving students greater flexibility in their education choices. Furthermore, faculty can readily customize open textbooks to better meet their local teaching and learning needs. Open textbooks provide pricing, flexibility and customization advantages that commercially available textbooks currently do not provide.

What are the 40 top-enrolled courses? For which courses will the Ministry be developing open textbooks?

- High enrolment courses are typically introductory courses offered in Arts, Sciences and Business. These include courses such as introduction to psychology, sociology, history, and English, introductory accounting, basics of micro- and macro economics, basic first year physics and chemistry courses, and introductory courses in calculus and algebra.

How much money is Government putting toward this initiative?

- We intend to invest up to \$1 Million for this initiative.

Is there really a cost savings?

- Commercial textbooks often cost more than a hundred dollars and in some cases more than two hundred dollars each. Open textbooks, or just the portion a student needs, by contrast, can be printed directly by students for the cost of printing and binding at much lower prices. Many open textbooks programs are using \$30 as a threshold for open textbook print editions. Alternatively, students can keep their open textbooks as e-versions and pay nothing.
- In addition, there are potential savings through the shared development aspect of open text books – one set of funded resources being developed and updated. There is also potential for reduced need for student financial aid.

Has BC ever developed an open textbook?

- British Columbia has already developed one open textbook for an Information and Communication Technology course. It is currently being taught for the first time as a collaboration between College of New Caledonia, Northern Lights College, Northwest Community College and Yukon College.

Who can develop open textbooks under the Government's plan?

- We are still finalizing the details on the process, but we expect to use an open Request for Proposal (RFP) process that would be coordinated by BCcampus. The RFP process, which will be open to anyone, will ensure that stakeholders are involved in the development of the material (e.g., faculty, experts and publishers). Proposals could come from faculty and instructors, from public or private post-secondary institutions, publishers, or the general public.

Who will be making the decisions on which textbooks will be developed as open textbooks?

- We expect this initiative to be overseen by the BCcampus Strategic Council, like through a sub-committee which would include representation from the post-secondary system and government. BCcampus is an agency of government and has been working in the global environment on open education resources.

How will you ensure quality of materials?

- The development process for the open text books would need to be rigorous and ensure quality. Examples of the quality control process could include review of proposals by British Columbia faculty and instructors, and peer review of the textbooks once they are completed. The open textbooks could even be piloted before they are approved for general use.

Who owns the open textbook?

- The copyright is owned by the author(s)/developer(s). So, for example, if a group of calculus instructors comes together to create a calculus open text book, that group "owns" the material – the intellectual property.
- However, under the agreement for funding, the textbook has a Creative Commons (CC BY) license which makes it freely available to anyone to use, reuse and revise. The open textbook will be 'housed' in a digital library or repository which is managed by BCcampus as an agent of government.

How will copyright apply for this initiative?

- Copyright for the open textbooks will be ensured through the Creative Commons using the "attribution by" license, also known as CC BY. This is the most open and accommodating license. The CC BY license requires that anyone using, adapting or revising an open textbook has to credit and acknowledge the original author(s) of the book.

Doesn't this impact Intellectual Property provisions in faculty collective agreements?

- The authors of open textbooks will still maintain ownership of their work. Creative Commons licenses give authors a standardized way to assign use of their creative work. They can let others distribute, remix and build upon their work, even commercially, as long as they credit the author for the original creation. If a textbook has potential to be used for commercial gain, then the author(s) can work with a textbook publisher to build an enhanced version of the work. The encouragement of open textbooks does not preclude the option for commercial gain.

Will faculty and instructors be required to use the open text books?

- No, faculty and instructors will still have the ability to determine the educational resources, including text books, that they wish to use for their courses.
- However, it is our hope, with faculty involvement in the development of open text books and a rigorous quality assurance process, that individual faculty members will embrace open text books.

How will open textbooks affect revenues at post-secondary institution bookstores?

- Campus bookstores will still be able to sell text books, as there will many courses that do not have open text books.
- Additionally, bookstores can sell print copies of open textbooks, just as they do for publishers' textbooks, but only if the open access copyright allows commercialization. Many campus bookstores are already engaged in efforts to lower the cost of publishers' textbooks with rental programs and other innovative strategies.
- Campus bookstores can also provide an open text book print on-demand service for students who wish a print version.

Do British Columbia students have access to Washington State's open text books? And will they have access to the courses and textbooks California plans to develop?

- Anyone has access to these courses. They are still very new and we don't know if faculty and instructors are using them yet in British Columbia.
- We want to work together with Washington and California to maximize our open text book initiatives, and ensure we do not duplicate efforts.
- We will want to review materials that are already available and determine whether they may be suitable – in whole or in part – for use in British Columbia.
- The advantage of the Creative Commons licence is that we can use their work and adapt it for use in British Columbia as long as we credit the original authors. This may also reduce the cost of developing the open textbooks.

Open Textbooks – Technical Questions and Answers

What are open textbooks?

- Open textbooks are textbooks, workbooks and other supporting materials that are freely available for use, reuse, remixing and redistribution by educators and students, without an accompanying need to pay royalties or licence fees.
- Covering a wide range of disciplines, open textbooks are freely available, under an unrestricted license, to download and print in various file formats from open educational resources repositories. Many organizations and institutions provide access to open textbooks through their websites.
- An open textbook is a body of educational content that is openly available over the web or in a book store with a reuse license that allows copying and distribution or, with the most open license, allows modification of the content and even sale.

What about copyright? How does it impact open text books?

- A key aspect of open text books use is the set of rights afforded by “open licenses,” such as those provided through Creative Commons (CC) licenses. Authors of open textbooks make their own decisions about open licensing of their content. Several different open licensing options are available.
- CC licenses work **WITH** copyright. The author still holds copyright and assigns specific uses through CC licenses. The CC license permits others to distribute, remix, tweak, and build upon the author’s work, even commercially, as long as they credit the author for the original creation.
- CC licenses extend rights from copyright holders to others in society who would like to make use of existing works such as textbooks that can be freely reused in educational settings. Specifically four areas of practice are covered by CC licenses. They are:
 - Reuse: the right to reuse content in its unaltered, verbatim form
 - Revise: the right to adapt, adjust, modify or alter the content itself
 - Remix: the right to combine the original or revised content with other content to create something new
 - Redistribute: the right to make and share copies of the original content, revisions, or remixes with others (Wiley, 2010)
- In other words, by using CC licenses, advance permission is given by the developer (owner, copyright holder) to all users to freely access the textbook. The author or developer is simply saying, “Here’s the text book I’ve created - use it, change it, combine it with anything else and share it with others free of charge. The only thing I ask is that you give me credit for developing it and whatever you do with it give others the same permission to use it.”
- In the past, seeking copyright permission was the only way one could legally use a resource written or developed by someone else. And it was usually a one to one or one to a few relationships, i.e., one person asks another person (the publisher) for permission to use the textbook. Each person wanting to use the textbook must do the same thing. By giving USE permission up front and making

the textbook open, the copyright owner has eliminated the need for anyone who wants to use the resource from having to contact him or her.

Why would faculty or researchers want to produce or use open textbooks?

- Open textbook authors are no different than commercial textbook authors, with one exception - open textbook authors share their knowledge with students freely in order to increase accessibility, and significantly reduce cost to the student.
- Some authors are hired by a school or foundation to write open textbooks for some particular reason or for a particular group of students. Most open textbook authors use the Creative Commons attribution only or attribution-share-alike license.
- Overall, introduction of open textbooks can create more opportunities for faculty who wish to publish commercial material, because faculty who wish to write commercial (for sale) material will be able to leverage open content by providing commercial (for sale) addendums to that open content.
- If the textbooks that are available for sale have a reasonable price, there will be little impact. However, if you can buy a printed version of an open textbook for \$20 when the equivalent commercial version sells for \$120, it will cause people to change.
- Availability of open content and textbooks can potentially increase class enrollments by providing students with free (online) or low cost (print-on-demand) open content. Thus, students who have traditionally not been able to enroll in a course because the textbook cost is too high will no longer encounter that barrier.

Why would anyone invest in the expensive development of new and innovative textbooks – why not just sit back and wait for someone else to do it and then use it for free?

- Some will do just that, but so what. Washington State and California are developing open textbooks. Obviously there are jurisdictions, institutions, teachers and professors that think open textbooks are the future. It is usually cheaper to use what someone else has developed and then modify it or add to it to make it more suited to your own curriculum.
- However, if a textbook truly has potential to be used for commercial gain, then the author(s), who retains copyright ownership via Creative Commons, can work with a publisher to produce a commercial enhancement. The encouragement of open textbooks does not preclude the option for commercial gain.

Are open textbooks inferior in quality?

- No. Just like any resource material, there is varying quality. Many open textbooks are paid for by institutions, governments and foundation grants. They ensure the textbooks they are paying for are of high quality, just like the process used today for development of any educational resource. For example, Rice University has established OpenStax College where open textbooks are provided for introductory physics and sociology courses. These textbooks are peer reviewed just like other conventional publications, but they will also be open to anyone to use.

- As more institutions around the world are requiring their educators to share materials under open licences, experiences clearly demonstrate that this opening of intellectual property to peer scrutiny is having the effect of *improving* quality of teaching and learning materials. This happens both because educators tend to invest time in improving their materials before sharing them openly and because the feedback they receive from peer and student scrutiny helps them to make more improvements.

How do we control quality in an open textbook world? If anyone can contribute anything, how do we know if it's reliable?

- There is essentially no difference in the faculty vetting process carried out for open textbooks, compared to commercially published textbooks. Faculty selection of open textbooks, as in the selection of commercial textbooks, is often a collaborative process driven by departmental faculty.
- Quality of a particular open textbook can be determined in several ways: 1) recommendations by faculty who have used the open textbook; 2) vetting by faculty reviewers; and, 3) faculty use of review guidelines created to standardize the open textbook review process.
- Instructors, teachers, professors are expected to check the quality of the materials they are using and this is true of conventional textbooks as well as open textbooks.
- By far the greatest check is peer review once it's made available online for the whole world to see. If there are inaccuracies or misinformation they will be quickly identified.

How could our institutions support open textbooks?

- At this time, we are only implementing open textbooks with targeted funding from the government. Institutions can expand this initiative using their own operating funds to provide open textbooks or other resources to the public.

How do we ensure open textbooks are kept current and up to date?

- Open textbooks can be kept up to date in two ways –formally or informally. The advantage of the open textbooks is that it allows for informal improvements which the traditional textbook does not permit.
 - Like traditional textbooks, open textbooks can be formally updated on a periodic basis. However, with open textbooks the process is easier. The original authors do not have to be involved, other subject experts could get involved; all that needs to occur is the original authors have to be acknowledged in the updated version.
 - Because these textbooks are open for revision and remixing, it is expected that they will be updated by interested faculty and instructors voluntarily without a formal process. These changes may be more than just updates, they might include improvements based on student feedback, or changes to meet different course outlines taught by other instructors. The advantage of open textbooks is that anyone can change them to suit their purposes, including updating them. The updates can then be shared informally across the system.