Wide open textbooks: The burdening costs of educational resources

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The problem with textbooks is that they're expensive. They're sort of a hidden educational fee.

Like a lot of students, James Tait was supposed to buy the online component to his textbook. Buying used to save a bit of money, he didn't get the online access code that comes with a new book.

"I needed it for my chemistry class, it was called Mastering Chemistry, but I never bought it," he said.

The online component is an addition to the textbook, for homework, self-tests, and tutorials. Textbook companies include these platforms with the sale of new textbooks as an additional service, but also to reduce used textbook sales. The access code for Mastering Chemistry is about $70.

"$50 to $100 may not seem like a lot compared to hundreds of dollars for a class, but $50 for me, it's eating for a week," Tait said. "And I can't really afford to go to school as it is, so I try to reduce my costs as much as I can."

Tait spends a lot of his time looking after his dad. So between time spent at school, on school work, and trying to pull in any extra money, there isn't a lot left to blow on educational luxuries.

"It's between an extra four per cent in my chemistry class and eating. So for me it was eating."

Textbooks may not seem like a big deal to anyone not paying for an ongoing education. For those who got educated in a time when a summer job at the grocery store paid for a year of school, and making six figures working at a university is no big deal, textbooks don't sound like a concern. If paying only the online component of a textbook means not eating for a week, maybe the model should be rethought.

There's something to be said about the simplicity of a textbook. As if it were the sum of all necessary knowledge. As if, when asking you to buy the textbook for my class, I'm saying, "Here in my hand, I hold everything you'll need to know," and for some reason that's less intimidating than online content — where does it begin, where does it end?

One of the big problems with textbooks is it's a closed market. The student has only one option to choose from, and the choice is made by the course instructor.

"The way it really works is the publishers talk to the faculty and say, 'Hey you should use our textbook, here are all the great benefits of it,'" said Martin Warkentin, copyright librarian at UFV. "And faculty will make decisions based on a number of reasons, and if they chose to take a textbook then it's the student that pays for it."

The reason that any particular textbook is used in any particular class is because the instructor thought it would work best for that class. It might be that the book is accompanied by a package of course materials — pre-written tests and quizzes, PowerPoint presentations, or other material to make the instructor's life easier. Other times the textbook may really be the best option for teaching that class. Either way, the textbooks are sold to professors, but paid for by students.

"The analogy you could look at is the pharmaceutical industry, where the pharmaceutical companies talk to the doctors and say 'Hey we've got these great treatments' but then it's the patients who pay for it, or the health care system," Warkentin said.

Depending on what's being studied, textbooks usually cost around $1,000 per year. Some of these bad boys go for more than $300.

UFV tuition fees for full-time Canadian and international students in an arts and humanities program at the undergraduate level was $4,182 for domestic students, and a whopping $16,100 for international for the 2016-17 year. Add the cost of textbooks and domestic students nearly pay 20 per cent more than what's advertised. International students pay less than five per cent more but only because their fees are so ridiculously high already.

Troubling stats show that B.C. students now work 180 per cent more hours than in 1975. That's how today's students keep up with the unchecked costs of economic and educational inflation.

The cost of textbooks has increased by 812 per cent over 30 years. Dropout rates rise as student debt increases, according to Simon Fraser's Open Textbook Summit 2015 Conference Report. When debt reaches $10,000, program completion drops from 59 per cent to 8 per cent. Perhaps the retention rates that UFV has been concerned about — around 60 per cent — relates to the cost of university education.

The book publishers industry generated an operating revenue of $1.7 billion in 2014. In 2016 they operated at $1.9 billion. They're moving a lot of money. Imagine about 1.5 million full-time students in Canada paying anywhere between $600 and $1,500 a year for books. That doesn't even include part-time students.

No one will deny the overwhelming costs of education. But the chances of finding a real job without any post-secondary education are bleak. According to the Canadian Federation of Students, the average student in Canada graduates owing about $28,000 to someone else. What a way to create opportunity. The student gets an undergraduate degree to get a reasonably well paying job so they can pay off the debt they owe for trying to get educated to get a reasonably well paying job. You might think of it like this: we're playing Monopoly, but instead of traditional rules we've modified gameplay so that you simply can't win.

Facing an adverse, seemingly antagonistic system, students get pretty creative to avoid having to pay full price for textbooks. Whether it's torrenting E-books, swapping "used" stickers onto new books, buying from other countries, or the old "buy-photocopy-return" trick. Or simply going without buying the text because any way you slice it, textbooks are expensive. In some classes, textbooks aren't used enough to justify any cost. That's why 38 per cent of students opt out of the textbook market.

One of, if not the biggest wave maker in the world of textbooks is the open textbook, or open education resource (OER). It's like open source software such as Firefox or Linux operating systems but in textbook form.

According to Wikipedia (another open source), "Open educational resources (OER) are freely accessible, openly licensed documents and media that are useful for teaching, learning, and assessing as well as for research purposes." The term was first used at UNESCO's 2002 Forum on Open Courseware. It refers to material that has been created for free use by anyone. It's democratized information. The idea isn't merely to replace bulky, expensive textbooks, although someday soon it may do just that. OERs are popular amongst teachers, students, and self-motivated learners. It effectively brings information into the hands of anyone who's interested enough to look for it.

"It's about equity in education and access. It's not just about saving people a buck, but about making sure everyone has a chance. It's leveling that playing field," said Warkentin.

"Open textbooks in general is kind of a movement or initiative that started at a few different places in the United States and it has gradually moved north," said Warkentin. "B.C. is kind of ahead of the curve on a lot of these initiatives."

The Open Textbook Project was launched in 2012 as a B.C. government-sponsored initiative with an initial $1 million. BCcampus was created to oversee the project. And although this is by no means the only large initiative to

bring open textbooks into post-secondary institutions, it's an interesting one because it's government funded.

BCcampus claims they've saved students between $3,412,621 – $4,094,204 since their inception. Of course, these are best-educated-guess numbers. They also don't seem as impressive when divided across the 35,024 students who are using the textbooks. On the low side of things, this has on average saved students $97.43; at the higher end, $116.89. This is better than nothing, but still far less than what the the B.C. government estimated, stating the project could save students up to $1,000 per year, according to the previous minister of advanced education, John Yap.

The high end may be somewhat misleading because it assumes that every student buys a brand new textbook. In an attempt to balance the range, the low end figure assumes the cost of a textbook is averaged at $100 per student — an increasingly more common way to calculate savings in the OER community. With that said, it's also difficult for BCcampus to track who's using their resources. Right now they rely on instructors who have adopted an open textbook for their class to report back to BCcampus. Not all instructors do.

If you want in on the savings, your best bet is to go to one of the top five adopting institutions: Kwantlen Polytechnic University, Douglas College, Langara College, Camosun College, Northwest Community College, respectively.

Regardless of how large of savings the BCcampus project has secured, the province has apparently put $2 million over the course of a few years into it which means the investment has at least doubled.

BCcampus has gained a lot of attention for being a government funded attempt to encourage open textbook usage. But it might be the wrong tree to bark up. As written in *Macleans*, the whole plan is seemingly half-baked. If the government wants to help offset the costs of education, they might have been better off dumping that $2 million into subsidizing tuition. Or not behaving so antagonistically towards teachers and educational institutions.

Current minister of advanced education Andrew Wilkinson said in a press release, "Open textbooks are one way that our government is putting students first. These textbooks offer students at universities and colleges throughout British Columbia the chance to save a lot of money on their path to success." They are one way, they're one of the few ways our government gives any thought to students.

BCcampus is sort of an arm of the government, as described by Maureen Wideman, director of teaching and learning at UFV. But the problem with the OERs is in quality of the text and getting payment for the authors.

"So you are a university professor and you're going to write a textbook but if it's an open textbook nobody is going to buy it, it's going to be free," said Wideman. "How do you get paid for all the work that you've done to pull this textbook together?"

The reality for someone who wants to write a textbook for open usage is that they likely won't be getting rich off their benevolence.

Enter Ian Affleck, department head of mathematics and statistics at UFV. It's true that a lot of OERs don't provide the same level of clarity, quality, or visual appeal that a published textbook would. Affleck said he has come across a few *okay* open textbooks for math, but nothing he would trust to his students — yet.

The problem with a lot of what's currently out there as far as open textbooks for math goes is they're too "mathy."

"And everyone says 'Of course it's a mathy book, it's a math course,'" said Affleck. "But we have students coming in from high school and if the first thing they see is nothing but 'Y is a function of X, say Y equals X, consider $Y = 25-X^2$' — come on, that's no way to start discussing a really important concept. Yuck, no one wants to see that, that's just intimidating."

Affleck spent a lot of time combing through alternatives to replace traditional textbooks. Some are better than

others, but at the end of the day there isn't anything he sees as worth bringing into his classroom. A lot of the open math textbooks aren't much more than compiled course notes from math professors, and course notes don't make ideal textbooks. But it gave Affleck an idea.

"Back then I thought, hey, that's a good sabbatical project for me. I'm going to go make my own." So he did that. Affleck took a year of leave from the university and set to work on making the best calculus textbook — a book that would cover two four-credit courses.

"I had some grand ideas of what I would do differently and what I would bring from what others have done and how mine would feel different, and I got a decent start on it but it did make me realize, my gosh this is huge."

If Affleck was going to write a textbook, it would have to be something that would actually do students a service. And naturally, it would be free. "If I'm recommending this thing that I make commission off of every time it's sold, there's going to be an obvious skepticism about whether it's the best thing," he said. But if it's possible to make a book that doesn't cost anything, and that the students like, why wouldn't other professors take interest in looking at it? And then maybe implement it in their courses, whether supplementally or to replace their existing books. It would have a clear benefit not only pedagogically, but financially. "It's a big factor that you can't ignore that this movement towards open textbooks can save students a ridiculous amount of money."

When it comes to open textbooks, Affleck acknowledged that you've got people all along the opinion spectrum. There are those who will look at a few free online textbooks and make up their mind that there's nothing out there, they sign off, check out, and go back to their traditional books. Then there's the other end of the spectrum where it's believed that open textbooks are the be-all and end-all answer to textbook woes. But both extremes can be harmful. Pushing sub-standard textbooks into classrooms before they've been tried and tested is equally as counterproductive as refusing to ever spend time looking at the options.

"I sometimes feel like I am reinventing the wheel because I'm not leaning heavily on previously built open texts, and I start to worry about that; am I crazy for not using more from what else is out there?" But there always has to be people willing to bring new and different material into the university. Perhaps Affleck is reengineering the wheel, but there's a reason we don't drive on wood spindled chariot wheels anymore.

Affleck's textbook project is ongoing. He didn't finish it during the sabbatical year and now, as department head and teaching three courses, there doesn't seem to be as much time.

The way OERs work is, let's say one professor writes a textbook, then other professors use it and think they can improve on it. It's not only possible but encouraged that elements from various open sources will be taken and improved on. If everyone collaborates to make a better product, eventually it'll be just that.

"Textbooks are designed to be sold to instructors, because they're the ones that chose the book, not the students"

Zoe Dennison is an associate professor at UFV. She's another supporter of open texts.

"For me I have always, for most of my courses, stayed away from textbooks anyways," she said. "Because, particularly at the upper levels, I don't really like what a textbook does to a course."

Dennison teaches psychology, and has for close to 30 years. You might say she knows her way around a psychology class. The problem with textbooks in general, according to Dennison, is that they only provide an immense surface coverage of many topics. And this is actually problematic.

"They just summarize all this stuff like it's an idea that we all agree on." She says the contents within the textbooks are often written in a way where the language assumes that we all agree that the info is straightforward and true.

"I don't want my third- and fourth-year students to think in summaries and I don't want them to think that we all know this stuff and we all accept this and we all go on from here. It's not accurate and it's also not how research in psychology works."

Dennison's contentions with textbooks go further beyond their death grip on the information industry. Why bother even thinking about the cost when the very content isn't worth using?

It's not a secret that most psychology textbooks are in the $200-ish range. More often than not, she said, her students aren't reading them — if they even buy them. And when they do, a lot of students experience studying-induced anxiety because of the inaccessibility of textbook material: "I also just don't want them to pay $200 to be bludgeoned with content."

Instead of textbooks, Dennison teaches from the Noba project. Noba is one of the many high quality open resources for teaching, but it currently only covers psychology. It's a free online platform that offers education resources through customizable, modular based courses.

Using the Noba project doesn't make Dennison's life easier. It's actually more involved. Because Noba offers a wider variety of "modules," to shape the class, she goes through and selects which ones she wants to use. She also writes her own quizzes, a luxury not provided when students aren't paying for the course's content. The modules might take different directions than what Dennison referred to as the set textbook formula: "You can give me any psych textbook and I don't have to open it to tell you what they cover and when in the chapter."

Even though the Noba project does what Dennison wants, online content can be unique for some students, and sometimes a bit of a learning curve. Part of teaching the class from online material is ensuring that it's still delivered in a meaningful way.

"I think it's one thing for me to assume that this is good for our students, but I'm not a first-year student so it's really important in moving forward that we make sure that as we go along, that we look at what students are doing with this, seeing what they're actually doing, asking them how it works, looking at things like how it works on mobile devices."

Regardless of Noba's quality and the service it provides, the end goal is to educate students.

Despite her aversion to them, at any given time there are stacks of psychology textbooks sitting around Dennison's and her colleagues' offices. Textbook publishers frequently send them their latest and greatest updated books. And if the publishers were to find out that some of the professors are currently looking to change one of their standard textbooks, they'd have a pack of textbook reps circling the department, each bringing every instructor and every ancillary a copy of their latest book.

"Then they'll make students pay for that because that's who's paying for the free textbooks. I don't want a free book that my students have to pay for," Dennison said. "In my office right now there's probably a stack of about a dozen intro textbooks I have received this year alone."

In Dennison's case then, it's not just the cost of textbooks that makes her uncomfortable. Buying into the system is supporting a marketing model that really isn't ethical.

"Textbooks are designed to be sold to instructors, because they're the ones that chose the book, not the students," she said. "It's not necessarily designed for the good of the average student who is taking intro to psychology, who is not necessarily a psychology major."

"We can be against technology and technological advancement as much as we want but at some point in time it's like the train leaving the station, we either hop on board or we are left behind"

The unethical model that textbook publishers use isn't the only option. And according to business professor Mike Ivanof, it's actually outdated.

Open textbooks are a bit like Uber, Ivanof describes, "Two to three years ago, all the taxi drivers in Vancouver said they didn't want Uber, it was taking their jobs." The City of Vancouver responded to taxi-driver concerns and banned Uber from being used in the region. But now, Uber is back.

"What happens is, interesting and irrespectively of the will of the taxi drivers, technology is going to replace them. Whether it's Uber today or the Google self-driving car 15 to 20 years from now, these people are dead."

One of the main and obvious problems with the textbook industry is the way they profit. Selling books to instructors to be paid for by students is an unsustainable model. E-readers and the accessibility of resources online will bring in a major shift in how information is disseminated. It doesn't matter how hard the publishing companies hold onto this bygone era, the times have changed. And Ivanof thinks we need to catch up to the 21st century.

"We can be against technology and technological advancement as much as we want but at some point in time it's like the train leaving the station, we either hop on board or we are left behind," he said.

There are other ways of paying for high quality content, and it comes down to changing who pays.

"I understand that the guy who writes the textbook needs to make money because he's put time and effort into it, but you need to shift the revenue model from the students paying for it," Ivanof said. "What you do is start inserting some advertisement, now you're shifting the revenue stream from the students onto a potential user of that student later on."

It's similar to what Google does. Nobody pays for their search service. But advertisers pay lots of money to Google to have their ads shown to you. A website called Bookboon does something to this effect. They offer thousands of textbooks for free, but every several pages has an ad. It's a newer model, but one that Ivanof thinks can solve a lot of the financial issues with the current system.

Several years ago Ivanof proposed to UFV that the institution take steps towards introducing and encouraging the use of more open texts. The effort to garner interest is ongoing.

The open textbook movement still has a ways to go before replacing traditional textbooks — if it ever even will do that. But if the cost of textbooks really are too much, it's something that will gradually change. It'll just take time before students and instructors warm up to the idea.

OERs are by no means the solution to the high costs of education. They're not yet a complete solution to the relatively high costs of textbooks. But the trend shows that they will keep improving if interest keeps growing.

And even if open texts do become widespread throughout Canadian universities, certain books just won't be accessible online and for free. Contemporary fiction, poetry, or recently published works of philosophy won't often be put out for free.

Perhaps, as Zoe Dennison believes, the reason that open educational resources haven't been adopted in a broader sense is because of the security the textbook gives both instructors and students. The current model is one where there's an expected way to transfer information. The textbook, print copies of readings, anything that can be held in hand is safer than online content, where the boundaries are unknown and the responsibilities of learning are seemingly limitless.

"I think if we open it up … in the long term it would save students quite a bit of money," said Ivanof.

The textbook industry is really an oligopoly. Only a few businesses control the market. It's a system that's really an

industry that profits off the need for education. But if students want a change in the material used in class, it'll be up to them to make it known.

"If you think that students are the customers and the customers want a certain thing, there's no business if you don't supply that," said Warkentin. "That's where the student initiatives with the open textbooks will come in. That's going to get more traction than a group of librarians that make guides and try to form committees. Students approaching faculty in a respectful way saying, 'Hey, can you try this out?'"

Textbook publishers are in a worse place than they'd like us to believe. They've been aware of the stats for a lot longer than any advocacy group. An organized push-back is all it'll take to send the message that ransomed educations won't be tolerated.