Who Needs Textbooks?

How Washington State is redesigning textbooks for the digital age.

by Anita Hamilton (content/education/authors/anita-hamilton.html), January 25, 2011

Jessie Sellers, a student at Tacoma Community College in Washington state, was puzzled when he logged onto his school’s website (http://www.tacomacc.edu) last December to figure out which book he needed for his upcoming English class. Whereas for all his previous courses, the 24-year-old education major could simply click on a link to view the name of the required textbook, this time there were no books listed at all. It was no mistake: thanks to an ambitious pilot program aimed at reducing the cost of textbooks at public colleges, Sellers and hundreds of other students across the state won’t have to buy textbooks for more than three dozen courses offered this winter.

Washington’s Open Course Library (http://opencourselibrary.wikispaces.com) is the largest state-funded effort in the nation to make core college course materials available on the Web for $30 or less per class. Financed with $750,000 from the state of Washington and a matching grant from the Bill & Melinda Gates Foundation, the goal isn’t just to reduce student costs, says program architect Cable Green. It’s also to create engaging, interactive learning materials that will help improve course completion rates. By the time the project is completed in 2012, digitized textbook equivalents for some 81 high-enrollment classes will be available online for the more than 400,000 students enrolled in Washington’s network of community and technical colleges. Even better, the materials can be shared across the globe, largely for free, because they will be published in an open format that avoids the most onerous licensing restrictions. To keep costs at a minimum, the teachers developing the materials are relying primarily on either existing material in the public domain or embarking on the painstaking task of developing materials from scratch.

Creating high-quality, interactive course material isn’t just a cut-and-paste job off the Web. From avoiding copyright-protected sources to finding material that is written at the appropriate level for beginning college students, the task of culling online materials is no elementary endeavor. Professor Phil Venditti, who is designing a public-speaking course to be piloted in the spring at Clover Park Technical College in Lakewood, Wash., plans to link students to online speech banks, such as American Rhetoric’s (http://www.americarrhetoric.com) and even the videos on the White House website (http://www.whitehouse.gov). But he says he wrote the main text for the class himself because preexisting resources were either copyright protected or not concise enough for his needs. “We only have 50 to 55 hours of class time together, and I would like my students to become top-notch speakers,” says Venditti. Adds another teacher, Ralph Dawes, who is designing the materials for an introductory geology course: “You have to find a balance between explaining enough but not
having too much information."

Although designing complete course materials from scratch is undoubtedly a big task, the idea is that any instructor who teaches the same course on another Washington State campus will then be able to use the new materials designed by a colleague. Instructors are also free to add or subtract content to suit their needs. What's more, the $30 million budget for each course enables teachers to use a limited amount of materials with copyright restrictions, should they be needed. As for concerns that material that is freely available may not be of the same quality as that which teachers must pay for, project head Green says, "the intellectual property license on content has absolutely nothing to do with quality of content. It would make it tough, however, to teach a class on, say, great works of modern American fiction, since classics like J. D. Salinger's The Catcher in the Rye still have strict copyright protection.

Jessie Sellers's English professor Jacqui Bain doesn't have that problem, however, because her class focuses on basic reading, writing, and grammatical skills. To redesign her course, she began by replacing the $85 We Are America (http://www.amazon.com/We-Are-America-Thematic-Writing/dp/1413039378) textbook (which includes Martin Luther King Jr.'s 1963 "Letter from a Birmingham Jail") and an excerpt from the 1890 Amy Tan novel, The Joy Luck Club, for example) with five of her favorite Sherlock Holmes stories, which she downloaded for free from the Project Gutenberg (http://www.gutenberg.org/kk/Main_Page) library. Next she enhanced the online text with pop-ups that define and illustrate key words such as "gasogene," a Victorian-era, hand-powered gadget used to carbonate water. She even found MP3 recordings of each story that students can download and listen to on portable music players. "I tried to make it as immersive as I could," says Bain, adding, "detective stories are especially good because they motivate students to figure something out from a reading." They also teach deductive reasoning skills that improve reading comprehension, she says.

Green estimates that the initiative could save Washington State students up to $41 million in textbook costs per year. This dollars-and-sense argument helped what Carlyle convine the state to pony up some $750,000 in financing last year, despite its multimillion-dollar budget deficit. Washington taxpayers currently pay about $74 million to fund grants to low-income community college students, many of whom enroll in community colleges. About half of that money goes toward covering the cost of textbooks, according to Carlyle. Reducing the cost of materials, he argues, could free up funds to go toward improving the quality of public education itself. "It is the ultimate win-win," says Carlyle, who criticizes textbook makers for the high costs of books. "It is an outrage that we allow this monopoly to crush common sense and to crush students' wallets and not fight back."

While Washington's pilot program has received the most state funding of any project, it's not the first project of its kind. Rice University has hosted Connexions (http://www.cnx.org), a vast, online database of open-source educational modules from elementary school through postgraduate level material on topics ranging from algebra to literary criticism since 1999, but the global site (which is funded by some $7 million from the William and Flora Hewlett Foundation) can be difficult to navigate. In September 2010, the Open University of the Netherlands opened a similar database of Dutch-language educational resources for teachers, dubbed Wikiwizo, which is being funded by a $10.6 million ($6 million) grant from the Dutch Ministry of Education. Simpler projects aimed at reducing the cost of textbooks are in the works in Brazil and Poland.

Perhaps the most cautionary lesson about the risks of developing open libraries of course materials comes from Utah State University, which launched a similar project in 2005 and currently offers free materials (http://www.usu.edu) for more than 80 courses, ranging from cultural anthropology to avalanche and snow dynamics. While Utah State received $200,000 in funding from its state government, along with $400,000 from the Hewlett Foundation, it ceased developing new online course materials in 2009 due to a lack of funding. "The economy is partly to blame, and consequently the program is currently in hibernation," explains the program's former head, David Wiley, who is now working on a similar initiative aimed at lowering the cost of high-school course materials in Utah.

The abrupt cessation of the Utah State project serves as a warning. While recruiting teachers to create original online course materials may save schools money initially (by reducing the amount of state grant money used to foot the bill for pricey textbooks), the programs still need to make sure they are sustainable in the future. That means everything from allocating funds to update the materials to minimizing the amount of updating needed in the first place. Christopher Gildow, an art teacher at Everett Community College (just north of Seattle) who is developing the interactive materials for an art-appreciation course, says he hopes to reduce the number of dead links that accumulate on webpages over time by steering clear of dotcom websites altogether. For an image of Dorothea Lange's iconic 1936 photo of a migrant farm worker (http://www.loc.gov/rr/print/list/128_migm.html), for example, Gildow links to a page from the Library of Congress.

The true measure of Washington State's initiative will be how willing other teachers are to adopt the new materials created by their colleagues and whether more students pass the classes in which they are being used. The first 42 courses, which are being tested and tweaked through June, will be available to Washington State's entire community and technical college network in the fall. "We have a big hope that faculty will be including more interactive, engaging material into their courses. We know that students who are engaged learn more," notes Josh Jarrett of the Bill & Melinda Gates Foundation, which donated more than $50 million to post-secondary education in 2010. "If nobody uses them, that's obviously not an ideal outcome," adds Jarrett.

So far, Tacoma Community College student Jessie Sellers seems sold. "The class is actually pretty good," he says. His one complaint: "I wanted to get a little bit ahead, but the teacher only posts things online about half a week in advance. So I have to wait." Sounds like he's hooked.