



**FOOTHILL-DE ANZA
Community College District**

**Assembly Committee on Higher Education
Hearing on
Maintaining Affordability for California's College Students—
The Rising Cost of Textbooks**

**The Honorable Carol Liu, Chair
February 28, 2006
State Capitol, Room 437**

***Creating 21st Century
Community College Courses:
Building Free Public Domain Textbooks for Students***

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**Testimony of Hal Plotkin, Vice President, Board of Trustees
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Thank you, Chairwoman Liu and the members and staff of the California State Assembly Committee on Higher Education, for the opportunity to speak with you today about a subject of mutual concern. The rapidly escalating — and in some cases the almost unconscionable — costs of community college textbooks are now one of the biggest financial barriers to access and success imposed by our system on students. I say “imposed by our system” deliberately. In essence, our community colleges currently serve as the uncompensated marketing arm of the commercial textbook publishers. As such, our colleges are already quite deeply involved in the textbook business. Unfortunately, though, at the moment that involvement, from a financial perspective, primarily serves the interests of the publishers — at the direct expense of the community college students the system was designed to serve.

During the first week of classes, it is not unusual to see students at our colleges combing through the shelves in our bookstore with a course catalog in hand as they investigate the costs of the books required for different classes. Those costs often determine which courses, and/or how many of them, a student can afford to take. A single calculus textbook on one of our campuses now costs an astonishing \$170. Put another way, it takes 25 hours of work for a student earning the minimum wage to earn enough money to pay for that one book assuming, of course, the student spends none of those wages on rent, food, transportation or childcare. As you know, many courses require more than just one book. These high textbook costs are shutting out — or at least slowing down — the education of hundreds of thousands of our fellow California residents. These students are not, however, the only group cheated out of opportunities as a result of the high cost of textbooks. The state of California loses, too, when it fails to develop the full capacities of its residents. On the financial side, the state loses the income, sales and property taxes that would be paid by a more highly educated population, not to mention the increased purchasing power that would otherwise contribute to economic vitality. On the social side, we lose the societal cohesion that exists when young people and others seeking education or retraining can navigate a path to a better future notwithstanding their personal financial circumstances.

Fortunately, a solution, a real solution, that will permanently decrease and, in some cases fully eliminate, the costs of textbooks for community college students is finally on the horizon. This committee can — and I hope will — play a major role in accelerating progress toward this goal.

But first, let me start at the beginning. As some of you may know, I’ve spent most of the last three decades as a journalist and broadcaster. It was in that role, five years ago, when I first reported on the enormous promise and possibilities of public domain learning materials, a field that has since come to be known as Open Educational Resources, or OER, for short. Let me quote to you from that first report, which was published by the San Francisco Chronicle’s SFGate.com in the Spring of 2001:

“In news that went largely overlooked a few weeks ago, MIT President Charles Vest announced that the prestigious Massachusetts Institute of Technology plans to make the

materials for nearly all of its courses freely available on the Internet over the next 10 years. MIT's decision is an enormous step forward on a path that will eventually bring higher education opportunities within reach of millions of people who now have scant hope of ever attending college.”

As the old proverb teaches, “If you give a man a fish he has food for a day. But if you teach him how to fish, he has food for life.”

MIT's OpenCourseWare initiative will give the whole world a chance to learn to fish. Schools and other institutions will be free to use MIT's academic materials, including any available classroom lectures or transcripts, without fear of violating copyright rules or other legal requirement. Essentially, MIT is providing educational raw materials that others can fashion into new educational products. It's similar to the way the open-source software movement provides a common set of technical resources that are freely available. The open-source model on which MIT's OpenCourseWare plan is based will help create a new educational eco-system where innovation will be enhanced through the sharing of online resources. The result will be a more dynamic educational structure that invites the type of participation required to keep educational materials about still-developing topics such as biology or computer science current and up to date.

“OpenCourseWare looks counter-intuitive in a market driven world,” MIT's Vest said when he signed on to the new plan. “It goes against the grain of current material values. But it really is consistent with what I believe is the best about MIT. It expresses our belief in the way education can be advanced — by constantly widening access to information and by inspiring others to participate.”

Some scientists say that human beings have an innate desire to learn that is built into our biology, a part of our survival mechanism. This process will be accelerated if MIT's example leads more schools to throw open their digital doors. It's likely that evolutionary forces will continue to slowly whittle away the elitism that characterizes too much of higher education today. Eventually, leaders at the most ambitious schools or other institutions will figure out the best ways to organize and exploit the Internet's free academic resources. The learning instinct will attract people to those resources as surely as the thirsty are led to water.

There has been a considerable amount of progress since I wrote those words. In the five years hence, more than 40 universities around the world, including 20 in China, 11 in Europe, six in Japan and at least four others in the United States, have joined MIT in releasing the courseware used at their schools. Meanwhile, other schools, such as Rice University, have created online repositories of free, high-quality public domain learning objects or modules that can be integrated into courses or textbooks. In addition to these new, high-quality academic resources, the power of the Internet has and is enabling the digitization of a wide variety of pre-existing public domain resources, including textbooks whose copyrights have expired. All books copyrighted prior to 1923 are now in the public domain. Many other books published after that date are also in the public domain, depending on the circumstances of their publication.

Algebra and geometry have not changed a whole lot since 1923. As such, in many cases it is now possible to take these public domain materials, both old and new, and combine and adapt them to serve as substitutes for commercial textbooks. This is true in a wide variety of disciplines. All of Shakespeare's works, for example, reside in the public domain, as do many other great works of literature. Our community colleges can organize and adapt these materials for use in community college classes and give them to students online entirely free, or in printed versions, for the cost of paper and printing.

In the past, government support of education has typically revolved around paying for the building of schools and providing salaries to educators. In essence, our government paid for the hardware, buildings and teachers, and commercial firms supplied the software, in the form of textbooks.

More recently, the advent of the Internet and the associated creation of a variety of archives and repositories of free, high-quality public domain learning materials have presented government with the opportunity to start constructing a new and different type of higher education resources for public use. How about building a college-level free public domain algebra textbook? Or a free reader featuring significant works of literature? Or a free geometry textbook? The possibilities are literally endless.

What's more, educators seeking to create, organize or adapt these materials don't have to start from scratch. Thanks to the foresight and generosity of several of our nation's leading charitable foundations, most notably the William and Flora Hewlett Foundation and the Mellon Foundation, there is already a wealth of free high quality public domain learning materials available.

To cite one such example, Carnegie Mellon University (CMU) recently unveiled an entirely free, fully contained college-level statistics course through its Open Learning Initiative. Working with Foundation grants in excess of a million dollars, a team of statistics professors at CMU joined forces with a group of cognitive scientists to create what many knowledgeable observers say is the single best statistics course in the country, perhaps the entire world. The course is currently up on the web where it can be used free of charge by anyone, anywhere. It contains many features not found in even the best statistics textbooks, including interactive practice tools and quizzes that identify specific deficits in comprehension in order to lead students to the refresher material they need.

Unfortunately, very few community college instructors are taking advantage of these resources. The reasons are complex. In my estimation, however, most of them boil down to the question of incentives. There is currently no formal program in place to encourage community college instructors to seek out or use these free, high-quality public domain materials. To be sure, some of our best faculty do so on their own initiative, often on their own time. But imagine what might be possible if faculty knew they had the support of our community college system, including financial support, to learn more about how they can create, find, adapt and use these resources to the benefit of their students.

That is the opportunity currently before us. There are currently approximately 1.5 million community college students in California. This figure does not include hundreds of thousands of students in the non-credit program. Full-time students spend a little more than \$1,000, on average, per year on textbooks. If we can save these students just 10 percent of that sum annually, and I believe we can easily do at least that within the next two to three years through increased use of public domain learning materials, we will put more than \$150 million dollars back into the pockets of California's community college students. What's more, as we make additional inroads in the creation and organization of public domain learning materials, these savings will increase from year to year. As an added benefit, the use of these materials can also contribute greatly to enhancing the overall quality of education, as best practices in teaching and learning are identified and more rapidly propagated.

For your review, I have attached to the written version of this presentation a representative sample of screen shots from web sites of some of the schools leading the burgeoning Open Educational Resources movement. In addition, I have attached a FAQ, or frequently asked questions document, that I prepared when a policy designed to take advantage of this opportunity, since passed, was under consideration at our Foothill-De Anza Community College District. This FAQ contains answers to many questions you may have about how this evolving field is developing.

Finally, I suspect I don't have to introduce many of you to our Chancellor, Dr. Martha Kanter, whose leadership in support of California's community colleges and on behalf of our students is well known to many of you. I am pleased to report that Chancellor Kanter is here with us today to share her perspective on this issue, which has been one of her longstanding concerns.

I thank you for your kind attention.

**Testimony of Martha J. Kanter, Ed.D., Chancellor
Foothill-De Anza Community College District**

Thank you, Chairwoman Liu and members of the Assembly Higher Education Committee, for holding this hearing on a topic of critical concern to college students today: the high and ever-rising cost of textbooks. Thank you, as well, for the opportunity to testify before you on “Creating 21st Century Community College Courses: Building Free Public Domain Textbooks for Students.” Foothill-De Anza Trustee Hal Plotkin has provided you with an overview and brief history of the Open Educational Resources movement and its burgeoning impact on higher education. Now that our community college district has a policy on public domain, I would like to briefly discuss the opportunities and challenges in leveraging quality academic resources using technology to reduce the financial burden on our students.

As you know, already-expensive textbooks and their rapidly escalating costs are frequently and correctly cited as a barrier to obtaining higher education. Let me personalize this with a story about an excellent student, Manuel, whom I mentored for two years when I was president of De Anza College. Manuel worked 40 hours a week and took care of his 10-year-old son. They lived with Manuel’s grandmother in a small apartment, with father and son sharing a tiny bedroom. Manuel waited until 10 p.m. each night, after putting his son and grandmother to bed, and drove over to his friend’s dormitory at Santa Clara University to use the friend’s computer and study for his classes. He didn’t get in touch with me one summer, but in the fall, he returned to register for classes and told me he hadn’t taken the summer class he needed. Why? Because he couldn’t afford the books. Needless to say, I was terribly upset. We have an emergency book loan fund, scholarships and grants that could have helped him. Nevertheless, there are hundreds upon hundreds of talented students like Manuel who struggle to pay for their educations — including books — and on whose behalf we must work to keep higher education affordable.

Mr. Plotkin and I are here today to offer recommendations for reducing the cost of textbooks, and in some cases, replacing expensive textbooks through the use of public domain materials. Public domain materials include those works for which copyright has expired, is not applicable or otherwise does not exist. Scientific principles, mathematical formulae, laws, government documents, legislative reports and all works published in the United States prior to 1923, including literary works, are all in the public domain. The Internet has greatly enhanced the availability and use of public domain materials, as evidenced by the partnership between the Google search engine company and Harvard, Stanford, Oxford and University of Michigan libraries and the New York Public Library to index and digitize the libraries’ book collections, the first round of which will be public domain works. What’s more, with our support, faculty can actually create public domain works to benefit our students.

I am proud that, at the initiative of Trustee Plotkin, the Foothill-De Anza Board of Trustees established a pioneering policy encouraging the creation, use, accessibility and maintenance of public domain materials. The policy, to the extent the district has been able to determine, is the first of its kind among California’s community colleges and at the forefront among community college board policies nationwide. The full text may be found at the end of my printed testimony.

Since the board of trustees approved the policy a little more than a year ago, the district has undertaken research to survey our faculty about their interest in and current and future use of public domain materials. For the information of faculty and other interested individuals, De Anza College has developed a public domain Web site, which may be viewed at <http://faculty.deanza.fhda.edu/PublicDomain/>.

We are also collaborating with the non-profit organizations Creative Commons and the American Library Association to design a Web-based course and training to introduce faculty to public domain works and encourage the development of freely available on-line course materials by addressing the concepts and procedures associated with intellectual property, licensing, copyright and digital rights in an academic environment. Our overarching goal is to build a library of public domain textbooks that are comparable in quality to those transferable, vocational or basic skills courses we now have in our catalogues.

Imagine if the Intersegmental General Education Transfer Curriculum were developed in the public domain by an intersegmental team of faculty from UC, CSU and the community colleges in each of the disciplines. Imagine a quality sequence of elementary and intermediate algebra course materials, leading to pre-calculus, calculus and statistics, all freely available in the public domain, linked to faculty-developed libraries of real-world, interactive problems that engage students. Imagine these materials linked to faculty available through the Internet for homework and tutorial support outside of class? Imagine — as is happening right now in UC Berkeley's digital chemistry course — all lectures streamed via video available on the Internet to California students, but going even further to align the lectures with the public domain course materials?

The public domain policy is not the district's first foray into the open content arena. In 2004, Foothill-De Anza was awarded a major grant from the William and Flora Hewlett Foundation to build upon the Sakai open source course management system in partnership with MIT, Stanford, Michigan, and Indiana to meet the unique needs of community colleges. Open source courseware encourages the publication and free exchange of educational materials on the Web. Right now, at the beginning stages of this venture, we have eight pilot courses in a variety of disciplines available on the Sofia Web site at Foothill College.

Community colleges are the gateway to higher education for the majority of California's students. A large percentage of our students are not prepared for higher education and many thousands statewide are concerned about the affordability of college. More than 70 percent of the students who come to our community colleges across the state need basic skills classes to prepare them for college-level academic work. In order to grasp the import of these concerns, one only has to read the recent report of the National Academy of Sciences, "Rising above The Gathering Storm: Energizing the Employing America for a Brighter Economic Future" (<http://www.nap.edu/catalog/11463.html>). The National Academy's first goal in its report is to "increase America's talent pool by vastly improving K-12 mathematics and science education." This recommendation has enormous implications for higher education. We simply cannot let our students down over this next decade. Renowned Stanford University Professor of Education Michael Kirst has provided urgent calls for us to improve the bridge between high school and college, with the best content, the best teaching and the best assessment — all seamlessly

articulated from K-12 through higher education, with common standards, to serve the diverse needs of our students.

Our request today is for the state of California to support our plans to create a scalable model for a public domain center for California Community Colleges and high schools and to introduce and encourage faculty to organize existing public domain works for use in our institutions as well as to create original public domain course materials for the library of undergraduate and basic skills courses that we envision. As one of our initial steps, we also ask your support of a pilot project to bring a group of faculty from our education segments together to design and place in the public domain the very best basic skills mathematics, English and ESL course materials and make them freely available to all California high schools, colleges, faculty and students.

Thank you for the opportunity to provide this testimony for your committee this afternoon.

Foothill-De Anza Community College District Board Policy 6141—Public Domain

The Foothill-De Anza Community College District supports the creation, use, accessibility, and ongoing maintenance of public domain-based learning materials in accordance with established curriculum standards for educational purposes of the District, using the commonly accepted legal definition of public domain materials. The goals of this policy are to provide students with learning materials that reside in the public domain to augment and/or replace commercially available educational materials, including textbooks where appropriate, to create sustainable academic resources for students, faculty and staff, and to provide opportunities for professional growth of district employees involved in these activities.

The Chancellor will provide periodic reports, not less than annually, to the Board that detail the progress made toward accomplishing the goals delineated by this policy.

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