Rice University
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Community College Open Textbook Project

Open Textbook Proof of Concept

Project Background

- In March 2008, the CCCOER launched the Community College Open Textbook (CCOT) Project (http://www.collegeopentextbooks.org), funded by The William and Flora Hewlett Foundation, as a one-year feasibility study in partnership with the Foothill-De Anza Community College District, the Monterey Institute for Technology and Education, Rice University's Connexions, University of California College Prep, Flat World Knowledge, California State University System's California Digital Marketplace, the Institute for the Study of Knowledge Management in Education, the High Tech Center Training Unit, and the Student PIRGs.

- The goals of the CCOT Project are to centralize critical open textbook information for use by community college professors and other interested parties and to document sustainable workflow approaches for producing, maintaining, and disseminating open textbooks.

- Part of the one-year feasibility study involves determining a sustainable workflow for the development and use of open textbooks. As a pilot of one approach, the CCOT Project has worked closely with Connexions staff to make the open textbook *Collaborative Statistics,* by Barbara Illowsky and Susan Dean (http://cnx.org/content/col10522/latest/), available for students in introductory statistics courses to view online or to download for free. A teacher's guide is also available, along with a syllabus, practice exams, calculator instructions, and lecture videos.

- In the first step of the pilot test, the Maxfield Foundation purchased the rights to the textbook and donated it to Connexions. Then, Connexions staff converted *Collaborative Statistics* from a traditional textbook into an open, online textbook. The CCOT Project staff carefully documented the workflow process and shared suggestions for improving the user interface. Since the time *Collaborative Statistics* was posted, other statistics instructors have created versions modified from the original with assistance from Connexions staff. Recently, the CCOT Project posted three additional math open textbooks to Connexions which are in PDF format and await conversion to CNXML.

- CCOT Project leaders secured the participation of faculty to pilot the *Collaborative Statistics* textbook. During the Fall 2008 semester, this open textbook was adopted by 15 instructors at 5 different colleges and universities. In October, Connexions staff conducted interviews and focus groups with community college faculty and students about the use of the open textbook. The CCOT Project estimates that in the fall 2008 and Winter/Spring 2009 sessions combined, *Collaborative Statistics* has been adopted for use in at least 43 course sections at 8 colleges and one high school in Ontario, Canada.

Collaborative Statistics

The textbook focuses on applications of statistical knowledge rather than the theory behind it. The focus is on thinking statistically, incorporating technology, working collaboratively, and writing thoughtfully. This book is intended for introductory statistics courses being taken by students at two- and four-year colleges who are majoring in fields other than math or engineering. The textbook was developed over several years and has been used in regular and honors-level classroom settings and in distance learning classes.

Peer reviews available at http://www.collegeopentextbooks.org/colstatrev01.html

Collection Title	Total Views	Avg Daily Views
Collaborative Statistics (col10522)	29,852	106.00
Teacher's Guide (col10547) Includes course outline and suggestions for teaching each chapter	1,212	5.78
Supplemental Course Materials (col10586) Contents include sample quizzes, practice exams, suggested course syllabus, and video tutorials	769	6.55
Collaborative Statistics: Adoption and Usage (m18261)	271	3.63

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Dr. Barbara Illowsky is Professor of Mathematics and Statistics at De Anza College in Cupertino, CA. She serves as the Project Director for the Basic Skills Initiative for the entire California Community College System. She is a member of the Executive Board of the Academic Senate for California Community Colleges and has continuously served on the board of the California Mathematics Council, Community Colleges for over ten years and is currently the president-elect. She has been honored with numerous awards for her innovative work in mathematics education.

Susan Dean was a full-time Mathematics and Statistics Instructor at De Anza College in Cupertino, CA until June 2007 when she retired. Currently, Susan does consulting and volunteer tutoring in mathematics. She has received a number of awards including the “Teaching Excellence Award” in 2005 from the California Mathematics Council, Community Colleges.

Open Textbook Adoption

Adoption of *Collaborative Statistics* represents a potential savings of at least $100 per student.

Fall 2008	Winter/Spring 2009
15 instructors	17 instructors
21 class sections	22 class sections
• De Anza College • San Diego Mesa College • SUNY Purchase • CSU Dominguez Hills • University of Colorado	• De Anza College • San Diego Mesa College • SUNY Purchase • Sacramento City College • Los Rios College • Frederick Community College • University of Toledo • Arkansas Tech Univ. • St. Mary's Collegiate and Vocational Institute

Media Coverage

"Collaborative Statistics — An Open Textbook Model**"** featured Commoner on Creative Commons, Dec. 3, 2008 http://creativecommons.org/weblog/lessig-letters/2008/12/03/11112

"Open Textbook Meets Community Colleges" in *Inside Higher Ed*, August 12, 2008 http://www.insidehighered.com/news/2008/08/12/connexions

Derived Works	Author	Total Views	Avg Daily Views
Collaborative Statistics with edits (col10561) Adapted to replace the use of TI-83/84 calculators in labs and exercises with Minitab	Teegarden	1,840	11.23
Labs For Collaborative Statistics (col10562) (Edited to include Minitab activities)	Teegarden	352	2.19
Collaborative Statistics: Custom Version (col10617)	Bloom	351	8.66

Other Open Textbooks at CNX

The CCOT Project procured open licenses for three math textbooks: *Applied Finite Mathematics* by Rupinder Sekhon, *Elementary Algebra* by Denny Burzynski and Wade Ellis, and *Fundamentals of Mathematics* by Burzynski and Ellis. These open textbooks are now posted to Connexions in PDF format. These collections are a work in progress, and the content has not yet been marked up in CNXML. You can download file copies of individual chapters from their respective modules.

	Total Views	**Avg. Daily Views**
Elementary Algebra (col10614)	767	17.23
Fundamentals of Mathematics (col10615)	457	10.27
Applied Finite Mathematics (col10613)	379	8.51