Faculty Review of Open eTextbooks

The California Open Educational Resources Council has designed and implemented a faculty review process of the free and open etextbooks showcased within the California Open Online Library for Education (www.cool4ed.org). Faculty from the California Community Colleges, the California State University, and the University of California were invited to review the selected free and open etextboks using a rubric. Faculty received a stipend for their efforts and funding was provided by the State of California, the William and Flora Hewlett Foundation, and the Bill and Melinda Gates Foundation.

Textbook Name:

Introduction to Computer Science

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Find it: eTextbook Website

Textbook Authors:

Wikiversity

Reviewed by:

Fay Zhong

Institution:

California State University, East Bay

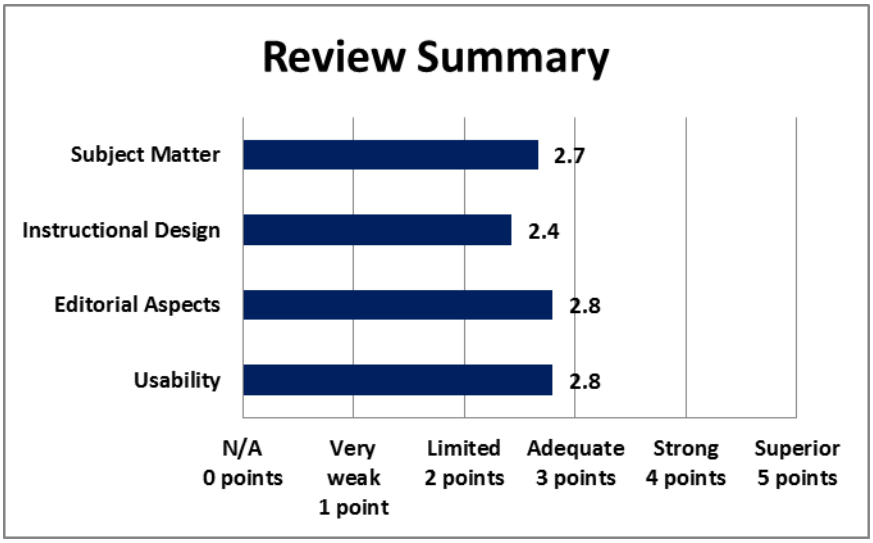
Title/Position:

Professor

Format Reviewed:

Online

A small fee may be associated with various formats.



Date Reviewed:

March 2015

California OER Council eTextbook Evaluation Rubric

CA Course ID: COMP 122

Subject Matter (30 possible points)	N/A (0 pts)	Very Weak (1pt)	Limited (2 pts)	Adequate (3pts)	Strong (4 pts)	Superior (5 pts)
Is the content accurate, error-free, and unbiased?				X		
Does the text adequately cover the designated course with a sufficient degree of depth and scope?			X			
Does the textbook use sufficient and relevant examples to present its subject matter?			X			

Does the textbook use a clear, consistent terminology to present its subject matter?				X		
Does the textbook reflect current knowledge of the subject matter?				X		
Does the textbook present its subject matter in a culturally sensitive manner? (e.g. Is the textbook free of offensive and insensitive examples? Does it include examples that are inclusive of a variety of races, ethnicities, and backgrounds?)				X		

Total Points: 16 out of 30

Please provide comments on any aspect of the subject matter of this textbook:

Instructional Design (35 possible points)	N/A (0 pts)	Very Weak (1pt)	Limited (2 pts)	Adequate (3pts)	Strong (4 pts)	Superior (5 pts)
Does the textbook present its subject materials at appropriate reading levels for undergrad use?			X			
Does the textbook reflect a consideration of different learning styles? (e.g. visual, textual?)			X			
Does the textbook present explicit learning outcomes aligned with the course and curriculum?			X			
Is a coherent organization of the textbook evident to the reader/student?			X			
Does the textbook reflect best practices in the instruction of the designated course?			X			
Does the textbook contain sufficient effective ancillary materials? (e.g. test banks, individual and/or group activities or exercises, pedagogical apparatus, etc.)			X			
Is the textbook searchable?						X

Total Points: 17 out of 35

Please provide comments on any aspect of the instructional design of this textbook:

Editorial Aspects (25 possible points)	N/A (0 pts)	Very Weak (1pt)	Limited (2 pts)	Adequate (3pts)	Strong (4 pts)	Superior (5 pts)
Is the language of the textbook free of grammatical, spelling, usage, and typographical errors?				X		
Is the textbook written in a clear, engaging style?				X		
Does the textbook adhere to effective principles of design? (e.g. are pages latid0out and organized to be clear and visually engaging and effective? Are colors, font, and typography consistent and unified?)				X		
Does the textbook include conventional editorial features? (e.g. a table of contents, glossary, citations and further references)				X		
How effective are multimedia elements of the textbook? (e.g. graphics, animations, audio)			X			

Total Points: 14 out of 25

Please provide comments on any editorial aspect of this textbook:

Usability (30 possible points)	N/A (0 pts)	Very Weak (1pt)	Limited (2 pts)	Adequate (3pts)	Strong (4 pts)	Superior (5 pts)
Is the textbook compatible with standard and commonly available hardware/software in college/university campus student computer labs?				X		
Is the textbook accessible in a variety of different electronic formats? (e.g. .txt, .pdf, .epub, etc.)			X			
Can the textbook be printed easily?				X		
Does the user interface implicitly inform the reader how to interact with and navigate the textbook?				X		
How easily can the textbook be annotated by students and instructors?				X		

Total Points: 14 out of 30

Please provide comments on any aspect of access concerning this textbook.

Overall Ratings						
	Not at all (0 pts)	Very Weak (1 pt)	Limited (2 pts)	Adequate (3 pts)	Strong (4 pts)	Superior (5 pts)
What is your overall impression of the textbook?			**X**			
	Not at all (0 pts)	Strong reservations (1 pt)	Limited willingness (2 pts)	Willing (3 pts)	Strongly willing (4 pts)	Enthusiastically willing (5 pts)
How willing would you be to adopt this book?	**X**					

Total Points: 2 out of 10

Overall Comments

If you were to recommend this textbook to colleagues, what merits of the textbook would you highlight?

- It covers piles of topics in computer science and programming concepts, which includes software, hardware and algorithms. For example: History of Computing (Lesson 1), Introduction to Turing Machines (Lesson 2), Basics of Computer Architecture, CPU and motherboard (Lesson 3), Internet (Lesson 4), Personal Computers (Lesson 5), Algorithm (Lesson 6), Language Principles, Types and Variables (Lessons 8 & 9), Control Structures (Lesson 11), Procedures and Functions (Lesson 12), Arrays, Strings and Records (Lesson 13), and Basic I/O (Lesson 14).

- It provides direct access to content online, with links to related topics on Wikipedia.

- Wikiversity is a project devoted to "learning resources, learning projects, and research for use in all levels, types, and styles of education from pre-school to university, including professional training and informal learning."

What areas of this textbook require improvement in order for it to be used in your courses?

- Many lessons can be extended with more in-depth explanations or additional examples, as well as sample code. For example, in "Basic I/O", some sample code is needed. Otherwise, it is more like a course for non-majors, or the high school Advanced Placement (AP) Computer Science course, which does not require a formal computer science background. A Programming Concepts & Methodology course for computer science majors should cover more details.

- Some lessons have a number of links to other webpages on Wikipedia. From those pages, there are additional links to even more webpages on Wikipedia. This might be distracting. Students may forget to come back to the main topic.

- A few lessons are under development, for instance, "Development environment and language principles", which says "Please help develop and classify this resource."

- There are several wrong links. For example, on "Basics of computer architecture" page, the link to "next lesson" should go to "Internet" instead of "Personal Computers", according to the list of lessons on the home page. In addition, "download as PDF" does not work as expected.

- More advanced sections and more in-depth explanations of particular "algorithms", "data structures", and "languages" can be included. New lessons on "Programming", "Databases", or "Artificial Intelligence" may be added.

- More multimedia elements, e.g. pictures, animations, audio, video lectures are desired.

We invite you to add your feedback on the textbook or the review to the textbook site in MERLOT
(Please register in MERLOT to post your feedback.)

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For questions or more information, contact the CA Open Educational Resources Council.

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