

OPEN TEXTBOOK ADOPTION*

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Abstract

Five steps to adopting an Open Textbook for a course.

1 Open Textbook Adoption

1.1 Quick Start

Step 1: Find an Open Textbook

Search for an open textbook from the following sources:

- MERLOT
- Community College Consortium for Open Educational Resources
- Global Text Project
- OER Commons
- Orange Grove
- Connexions
- USG Share (click on on word - guest)
- Textbook Revolution
- The Assayer
- MERLOT
- Community College Consortium for Open Educational Resources
- Wikibooks
- Audio Books
- CK12 Flexbooks
- Flat World Knowledge
- Public Literature
- Questia

Step 2: Review and Select an Open Textbook

As you search for open textbooks in repositories, consider what criteria you will use to select appropriate an open textbook for your own use. You can develop your own criteria or consider adapting existing criteria from other sources.

- Take a look at the criteria available from MERLOT's Peer Review process.
- Consider using or adapting the Evaluation Criteria Checklist used for content in USG Share.

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[†]<http://creativecommons.org/licenses/by/3.0/>

- The Curriki Review System allows content-area experts and teachers to review and rate resources in the Curriki repository.
- A video is available which explains the process.
- See Assessing the quality of open education resource based wikis.
- Watch this video lecture about educational quality assessment.

Make your selection based on criteria such as:

- Quality of content, literary merit and format
- Accuracy
- Timeliness
- Favorable reviews
- Permanence/lasting value
- Authority of author
- Scope and depth
- Physical quality
- Formats available: print, CD-ROM, online, etc.
- Reading level and writing style
- Accessibility
- Language(s)
- Copyright restrictions on modification and reuse
- Cultural relevance

Cultural factors include race, ethnicity, language, nationality, religion, age, gender, sexual orientation, income level, and occupation. Ensure that information is relevant to the intended students' social and cultural contexts. Also, check for ratings, reviews or endorsements of open textbooks and OER by professional societies and organizations. For example, some professional organizations use an endorsement Lens at Connexions to indicate that content meets their minimum standards.

Step 3: Customize your Selection as desired

Few existing open textbooks will meet all your instructional needs so you may want to customize the open textbook you have selected. Consider the following ways you may want to modify the open textbook to make it more appropriate for your teaching style: Combine two or more open textbooks and OER. Rearrange the content in the open textbook. Add a glossary, hyperlinks, and test bank. Make edits to improve accuracy and currency. Make the content usable by students with visual impairment. The BookBuilder tool at CAST is just one of several tools that can be used to create your own customized version of the open textbook. Another tool is available from BongoBooks. If the open textbook you selected is in the Connexions repository, you can make your own copy of the open textbook then make your own modifications as a 'derivative work.' CK12 and Flat World Knowledge allow for development of modified versions of open textbooks.

Step 4: Disseminate Your Open Textbook to Your Students

Disseminate your open textbook in either digital or print format to students in your course. Be sure to give your students clear instructions about appropriate use of printing services on your campus. Try to coordinate with the student computer labs, library, bookstore, and printshop on your campus.

Do-It-Yourself

- Email the website address of the open textbook to your students.
- Download the open textbook as a file (e.g., Word, Open Office, PDF). Email the file to your enrolled students.
- Post the website address or document file to your students' course management system course site.

If the Word document file or PDF is too large to email or post, use a free online file storage or file sharing service.

- Box.net
- BT Digital Vault
- Openomy

Tour of Lulu Students can download and print the Word document file, PDF, or website contents. Campus Printshop Create a Word document file or PDF of the open textbook that you have selected. Open Office is another option. Email the file to your Campus Printshop per their specifications. Printing Services Create a file (e.g., Word, Open Office, PDF) of the open textbook that you have selected. Email the file to a printing service such as exlibris per their specifications.

What are Open Textbooks?

Open textbooks "are textbooks that are freely available with nonrestrictive licenses. Covering a wide range of disciplines, open textbooks are available to download and print in various file formats from several web sites and OER repositories. Open textbooks can range from public domain books to existing textbooks to textbooks created specifically for OER. Open textbooks help solve the problems of the high cost of textbooks, book shortages, and access to textbooks as well as providing the capacity to better meet local teaching and learning needs" according to a Module created by Institute for the Study of Knowledge Management in Education (ISKME).

Five steps to adopting an open textbook for your course

Give your students an alternative to expensive textbooks by following these five steps.

Step One: List keywords based on course objectives or student learning outcomes.

Step Two: Search for open content using the keywords.

Step Three: Select or create appropriate open content.

Step Four: Organize open content into an open textbook.

Step Five: Get necessary approvals and disseminate the open textbook to students.

1.2 EXAMPLE

Health Course Textbook

A textbook commonly adopted for a Healthy Lifestyles or Health Education course is *An Invitation to Health* by Hales. This 2007 textbook is 696 pages in length and has a list price of \$108.95. One open textbook alternative is selected content from MedlinePlus¹. This content is free for downloading and printing.

¹<http://medlineplus.gov/>

	
<p>An Invitation to Health Table of Contents</p>	<p>Medline Plus Open Textbook Equivalent</p>
<p>Chapter 1: Your Invitation to Health</p>	<p>Health Literacy⁵² Evaluating Health Information⁵³</p>
<p>Chapter 2: Changing for Life</p>	<p>Healthy Living⁵⁴</p>
<p>Chapter 3: Psychological Health</p>	<p>Mental Health⁵⁵</p>
<p>Chapter 4: Personal Stress Management</p>	<p>Stress⁵⁶</p>
<p>Chapter 5: The Joy of Fitness</p>	<p>Exercise and Physical Fitness⁵⁷</p>
<p>Chapter 6: Personal Nutrition</p>	<p>Nutrition⁵⁸</p>
<p>Chapter 7: Taking Control of Your Weight</p>	<p>Weight Control⁵⁹</p>
<p>Chapter 8: Communicating and Relating</p>	<p>Personality Disorders⁶⁰</p>
<p>Chapter 9: Personal Sexuality</p>	<p>Sexual Health⁶¹</p>
<p>Chapter 10: Reproductive Choices</p>	<p>Reproductive Health⁶²</p>
<p>Chapter 11: Avoiding Addictive Behaviors and Drug Abuse</p>	<p>Drug Abuse⁶³</p>
<p>Chapter 12: Alcohol Use, Misuse, and Abuse</p>	<p>Alcohol Consumption⁶⁴</p>
<p>Chapter 13: Tobacco Use, Misuse, and Abuse</p>	<p>Smoking⁶⁵</p>
<p>Chapter 14: Defending Yourself Against Infectious Diseases</p>	<p>Immunization⁶⁶ Infectious Diseases⁶⁷</p>
<p><i>continued on next page</i></p>	

Chapter 15: Keeping Your Heart Healthy	Heart Disease Prevention ⁶⁸
Chapter 16: Preventing Cancer and Other Illnesses	Cancer ⁶⁹
Chapter 17: Health-Care Consumerism and Complementary/Alternative Medicine	Complementary and Alternative Medicine ⁷⁰ Health Fraud ⁷¹
Chapter 18: Healthy Aging and the Circle of Life	Seniors Health ⁷²
Chapter 19: Staying Safe: Preventing Injury, Violence, and Victimization	Injuries ⁷³ Safety ⁷⁴ Domestic Violence ⁷⁵
Chapter 20: Working toward a Healthy Environment	Environmental Health ⁷⁶

Table 1

Worksheet

You can print out a Worksheet to guide you through implementation of the five steps.

2 Step One

2.1 TASK

List keywords based on your course objectives or student learning outcomes.

2.2 EXAMPLE

Health Course Textbook

For a typical Healthy Lifestyles or Health Education course, expected outcomes are that students will be able to:

1. Appraise and assess public attitudes and behavior regarding health and **disease**.
2. Recognize, examine and formulate the importance of **immunizations**.
3. Recognize and assess public bias towards **aging, diabetes, epilepsy, STDs**, etc.

⁵²<http://www.nlm.nih.gov/medlineplus/healthliteracy.html>

⁵³<http://www.nlm.nih.gov/medlineplus/evaluatinghealthinformation.html>

⁵⁴<http://www.nlm.nih.gov/medlineplus/healthyliving.html>

⁵⁵<http://www.nlm.nih.gov/medlineplus/mentalhealth.html>

⁵⁶<http://www.nlm.nih.gov/medlineplus/stress.html>

⁵⁷<http://www.nlm.nih.gov/medlineplus/exerciseandphysicalfitness.html>

⁵⁸<http://www.nlm.nih.gov/medlineplus/nutrition.html>

⁵⁹<http://www.nlm.nih.gov/medlineplus/weightcontrol.html>

⁶⁰<http://www.nlm.nih.gov/medlineplus/personalitydisorders.html>

⁶¹<http://www.nlm.nih.gov/medlineplus/sexualhealth.html>

⁶²<http://www.nlm.nih.gov/medlineplus/reproductivehealth.html>

⁶³<http://www.nlm.nih.gov/medlineplus/drugabuse.html>

⁶⁴<http://www.nlm.nih.gov/medlineplus/alcoholconsumption.html>

⁶⁵<http://www.nlm.nih.gov/medlineplus/smoking.html>

⁶⁶<http://www.nlm.nih.gov/medlineplus/immunization.html>

⁶⁷<http://www.nlm.nih.gov/medlineplus/infectiousdiseases.html>

⁶⁸<http://www.nlm.nih.gov/medlineplus/heartdiseaseprevention.html>

⁶⁹<http://www.nlm.nih.gov/medlineplus/cancer.html>

⁷⁰<http://www.nlm.nih.gov/medlineplus/complementaryandalternativemedicine.html>

⁷¹<http://www.nlm.nih.gov/medlineplus/healthfraud.html>

⁷²<http://www.nlm.nih.gov/medlineplus/seniorshealth.html>

⁷³<http://www.nlm.nih.gov/medlineplus/injuries.html>

⁷⁴<http://www.nlm.nih.gov/medlineplus/safety.html>

⁷⁵<http://www.nlm.nih.gov/medlineplus/domesticviolence.html>

⁷⁶<http://www.nlm.nih.gov/medlineplus/environmentalhealth.html>

4. Differentiate the major classifications of **communicable and non-communicable** diseases.
5. Examine and discuss the role of **epidemiology in public health**.
6. Assess and analyze **nutritional** behavior.
7. Identify the major means of transmission for communicable diseases.
8. Identify and examine immunizations in relationship to **immunity**.
9. Examine the three levels of **health promotion/disease prevention**.
10. Identify, compare, and discuss normal versus abnormal patterns of behavior.
11. Identify and compare the major classifications of **drugs**.
12. Examine and appraise patterns of **drug abuse**.
13. Compare **cultural health behaviors** and suggest associated consequences.

Keywords identified for a Healthy Lifestyles course are:

- communicable and non-communicable diseases
- immunizations
- aging, diabetes, epilepsy, STDs
- epidemiology
- public health
- nutrition
- immunity
- health promotion
- drug abuse
- cultural health behaviors

3 Step Two

3.1 TASK

Search for open content using the keywords you have identified. Several resources are available on the Internet that provide teachers with tools to identify and select open content for use in instruction.

Some of these are:

- OER Commons⁷⁷
- MERLOT⁷⁸
- Connexions⁷⁹
- Internet Archive⁸⁰
- FREE: Federal Resources for Educational Excellence⁸¹
- COL Knowledge Finder⁸²
- Creative Commons⁸³
- OpenDOAR⁸⁴
- Curriki⁸⁵
- Hippocampus⁸⁶

⁷⁷<http://www.oercommons.org/>

⁷⁸<http://www.merlot.org/>

⁷⁹<http://www.oercommons.org/matters/oer-matters-discussions>

⁸⁰<http://www.archive.org/details/education>

⁸¹<http://www.free.ed.gov/>

⁸²See the file at <<http://cnx.org/content/m14475/latest/www.colfinder.org>>

⁸³<http://search.creativecommons.org/>

⁸⁴<http://www.opendoar.org/find.php>

⁸⁵<http://www.curriki.org/xwiki/bin/view/Main/WebHome>

⁸⁶<http://hippocampus.org/>

- Edu2.0⁸⁷
- More Content Sources⁸⁸

Also, see Discipline-Specific Content Sources⁸⁹, OER Public Domain Textbook Sources, and textbooks listed at OER Commons⁹⁰.

3.2 EXAMPLE

In order to locate open content for a health course, use search engines available on trusted U.S. Government sources of health information such as:

- MedlinePlus⁹¹
- Centers for Disease Control⁹²
- Healthfinder⁹³



Figure 1



Figure 2

⁸⁷<http://www.edu20.org/>

⁸⁸<http://cccoer.pbwiki.com/Content+Sources>

⁸⁹<http://cccoer.wordpress.com/discipline-specific/>

⁹⁰http://www.oercommons.org/home/browse_all/course_browse_all/textbooks-and-readings

⁹¹<http://medlineplus.gov/>

⁹²<http://www.cdc.gov/>

⁹³<http://www.healthfinder.gov/>



Figure 3

4 Step Three

4.1 TASK

Select or create appropriate open content for your course based on the objectives and keywords.

As you search for OER using these tools and repositories, consider what criteria you will use to select appropriate OER for your own use.

- Take a look at the criteria⁹⁴ available from MERLOT's Peer Review process.
- See Assessing the quality of open education resource based wikis⁹⁵.
- Watch this video lecture about educational quality assessment⁹⁶.

Make your selection based on criteria such as:

- Quality of content, literary merit and format
- Accuracy
- Timeliness
- Favorable reviews
- Permanence/lasting value
- Authority of author
- Scope and depth
- Physical quality
- Formats available: print, CD-ROM, online, etc.
- Reading level and writing style
- Accessibility
- Language(s)
- Copyright restrictions on modification and reuse
- Cultural relevance
 - Cultural factors include race, ethnicity, language, nationality, religion, age, gender, sexual orientation, income level, and occupation. Ensure that information is relevant to the intended students' social and cultural contexts.

Also, check for ratings, reviews or endorsements of your sources by professional societies and organizations.

⁹⁴<http://taste.merlot.org/evaluationcriteria.html>

⁹⁵<http://wikieducator.org/User:Prawstho/WikiQuality>

⁹⁶<http://youtube.com/watch?v=kRLPFM2kEq8>

4.2 EXAMPLE

Health Course Textbook

The open textbook content selected for a health education course from Medline Plus⁹⁷ is subject to Quality Guidelines⁹⁸.



Figure 4

To determine quality and reliability of other health sources on the internet, look for the HONcode⁹⁹ badge on the website. Websites that adhere to HONcode principles of the HON Foundation can post this badge. Be sure to verify¹⁰⁰ the authenticity of the badge.



Figure 5

For additional health information that has been reviewed for quality, see the HEAL Reviewed Collection¹⁰¹.

5 Step Four

5.1 TASK

Organize open content that you have collected into an open textbook. If the content you have selected does not comply with ADA Section 508 accessibility requirements and copyright laws, then you will need to modify the content or select other content.

Accessibility

Certain accessibility requirements must be addressed when selecting and developing OER for electronic dissemination to students. By law, ADA Section 508¹⁰², learning materials, including interfaces, images, sounds, multimedia elements, and all other forms of information, must be made available for used by anyone,

⁹⁷<http://www.nlm.nih.gov/medlineplus>

⁹⁸<http://www.nlm.nih.gov/medlineplus/criteria.html>

⁹⁹<http://www.hon.ch/HONcode/Conduct.html?HONConduct898345>

¹⁰⁰<http://www.hon.ch/HONcode/Conduct.html?HONConduct898345>

¹⁰¹<http://www.healcentral.org/services/servicesCollectionsList.jsp#HEALRevColl>

¹⁰²<http://www.section508.gov/>

regardless of disability. Detailed information about accessibility guidelines are available at Web Accessibility Initiative (WAI)¹⁰³ and the Americans with Disabilities Act (ADA)¹⁰⁴.

Certain accessibility requirements must be addressed when developing OER for electronic dissemination to students. For example, see Distance Education: Access Guidelines for Students with Disabilities¹⁰⁵ from the Chancellor's Office California Community Colleges.

By law, ADA Section 508¹⁰⁶, learning materials, including interfaces, images, sounds, multimedia elements, and all other forms of information, must be made available for used by anyone, regardless of disability. See this microtutorial about Section 508: <http://21cif.imsa.edu/tutorials/micro/mm/508>¹⁰⁷

Detailed information about accessibility guidelines are available at Web Accessibility Initiative (WAI)¹⁰⁸ and the Americans with Disabilities Act (ADA)¹⁰⁹.

- Utah State University, Web Accessibility in Mind (Webaim)¹¹⁰ offers various "How To" information and support on creating accessible web sites. Web authors can find a Section checklist, sample HTML markup and various articles and courses on accessible web design.
- The Accessible Web Publishing Wizard¹¹¹ simplifies the task of converting PowerPoint presentations, Word documents, and (in the future) Excel spreadsheets to accessible HTML through an easy-to-use user interface and automation of many of the details of conversion.
- Art of ALT¹¹², a series of online lessons about building accessibility into Web-based humanities content. These lessons provide information to help build Web sites whose content is available to those with disabilities.
- A-Prompt¹¹³ is an accessibility evaluation and repair tool from the University of Toronto in cooperation with the Trace Center and CAST. A demonstration version is available for download. A-Prompt lists what it considers to be errors and offers a chance to correct each one.
- My Web My Way¹¹⁴ Tips for Students about how to make the web easier to use¹¹⁵
- Accessibility Evaluation and Repair Tools¹¹⁶
- Accessibility Training and Resources¹¹⁷
- Accessibility Checklist-508 Compliance¹¹⁸
- Resources for Checking Accessibility and Captioning Multi-Media¹¹⁹

Copyright

Although documents, pictures, audio and other information are all easy to copy from the Internet, it is your responsibility to understand and respect the laws that protect the author(s) of electronic information. The copyright laws that govern information in all formats are complex. It is impossible to reduce them to a few simple rules. We encourage you to visit the pages listed here. They have been prepared by legal and other experts on the subject of copyright and can help you learn to decide for yourself whether it is appropriate to use electronic information sources in your work. A basic understanding of copyright, fair use, the TEACH Act, and intellectual property is necessary before using and developing OER in order to minimize the risk of violating the law.

¹⁰³<http://www.w3.org/WAI/Resources>

¹⁰⁴<http://www.usdoj.gov/crt/ada/adahom1.htm>

¹⁰⁵http://www.htctu.fhda.edu/publications/guidelines/distance_ed/dist.ed.htm

¹⁰⁶<http://www.section508.gov/>

¹⁰⁷<http://21cif.imsa.edu/tutorials/micro/mm/508>

¹⁰⁸<http://www.w3.org/WAI/Resources>

¹⁰⁹<http://www.usdoj.gov/crt/ada/adahom1.htm>

¹¹⁰<http://www.webaim.org/>

¹¹¹<http://cita.rehab.uiuc.edu/software/office/>

¹¹²http://www.utexas.edu/research/accessibility/resource/tutorials_classes/Art_of_ALT/

¹¹³<http://aprompt.snow.utoronto.ca/>

¹¹⁴<http://www.bbc.co.uk/accessibility/>

¹¹⁵<http://www.htctu.fhda.edu/index.htm>

¹¹⁶<http://www.utexas.edu/research/accessibility/resource/link.html>

¹¹⁷<http://www.htctu.fhda.edu/index.htm>

¹¹⁸<http://www.webaim.org/standards/508/checklist>

¹¹⁹<http://ncdae.org/tools/index.cfm#caption>

Did you know that the copyright notice © is no longer required for works published after March 1989? This means that the absence of a copyright notice does not necessarily mean the work is within the public domain. If you are unfamiliar with copyright issues, you are encouraged to visit one or more of the many online tutorials exist which address these topics.

Watch this video clip that addresses the challenges faced by faculty when distributing copyrighted material from various sources: The Case of Dr. No¹²⁰.

Many basic tutorials about copyright are available:

- Trademark and Other Intellectual Property Resource Guide¹²¹
- The Copyright Crash Course¹²², University of Texas at Austin
- VA Tech Copyright Info¹²³
- What You Need to Know About Copyright¹²⁴
- License Your Work - Creative Commons¹²⁵

5.2 EXAMPLE

Health Course Textbook

The Health Course open textbook alternative content available from MedlinePlus complies with Section 508 accessibility and is available for use under the Copyright Information¹²⁶ stated on their website.

Photographs, illustrations, and multimedia selected from the Public Health Image Library¹²⁷ (Centers for Disease Control and Prevention) generally free for use without copyright restrictions:

- Most of the images in the collection are in the public domain and are thus free of any copyright restrictions. If you look directly beneath the image you will see a fair use statement that tells you if the image is public domain or copyright protected.
- Permission is not required for public domain images, but we do ask that you credit the original institution and contributor, when known, whenever the image is used in any publicly distributed media.

6 Step Five

6.1 TASK

Get necessary approvals and disseminate your open textbook for student use in your course.

Approvals

Get approval from your academic department to use the open textbook in your course. Get your open text on the approved list for articulation purposes with transfer schools, especially if you teach at a community college.

Dissemination

Do-It-Yourself

- Create a PDF of the open content that you have selected.
 - Use Drawloop¹²⁸ for creating PDF

¹²⁰http://marconi.umuc.edu/ramgen/cip/educause_dr_no/case_of_no.rm

¹²¹<http://www.marcaria.com/articles/Trademark-and-Other-Intellectual-Property-Resource-Guide.asp>

¹²²<http://www.lib.utsystem.edu/copyright>

¹²³<http://scholar.lib.vt.edu/copyright/>

¹²⁴<http://www.lib.ncsu.edu/cdsc/copyright/instruction>

¹²⁵<http://creativecommons.org/license/>

¹²⁶<http://www.nlm.nih.gov/medlineplus/copyright.html>

¹²⁷<http://phil.cdc.gov/Phil/faq.asp#question6>

¹²⁸<http://www.drawloop.com/>

- Use Connexions¹²⁹ to create PDF
- Use OER Commons¹³⁰
- Convert Gutenberg Text File to PDF¹³¹
- Email the PDF to your enrolled students. Or post the PDF to your students' course management system course site. If the PDF is too large to email or post, use a free online file storage or file sharing service
 - Box.net¹³²
 - BT Digital Vault¹³³
 - Openomy¹³⁴
- Students can download and print the PDF or simply view the PDF on their computers

Campus Printshop

- Create a PDF of the open content that you have selected.
- Email the PDF to your Printshop per their specifications

Printing Services

- Create a PDF of the open content that you have selected.
- Email the PDF to one of the following Printing Services per their specifications
 - Tour of Lulu¹³⁵
 - SafariU¹³⁶
 - Illumina¹³⁷
 - exlibris¹³⁸

6.2 EXAMPLE

Health Course Textbook

Virgil Bourassa and Fred Mednick from Teachers Without Borders posted a 2006 textbook on child health¹³⁹ for their Health Education Course at Connexions. The textbook can be easily downloaded as PDF and printed from the site.

Health educator Stacey Hughes uses Lulu to distribute her 2006 book titled: Health & Social Care Teaching Resources¹⁴⁰.

This Module was developed by Dr. Judy Baker, Director of the Community College Consortium for Open Educational Resources.¹⁴¹ January 21, 2008.

- To join the Consortium, please contact Dr. Baker at bakerjudy@foothill.edu
- For more information about open textbooks and open educational resources, see the Introduction to Open Educational Resources¹⁴² self-paced tutorial.

¹²⁹<http://cnx.org/>

¹³⁰<http://www.oercommons.org/>

¹³¹<http://cosl.usu.edu/projects/microlibrary/library>

¹³²<http://www.box.net/individual>

¹³³<http://www.homeitsupport.bt.com/digitalvaultbasic/>

¹³⁴<http://www.openomy.com/>

¹³⁵http://www.lulu.com/demos/get_started

¹³⁶<https://www.safariu.com/index.do>

¹³⁷<http://www.illumina.com/>

¹³⁸<http://www2.xlibris.com/>

¹³⁹ <<http://cnx.org/content/col10330/latest/>>

¹⁴⁰<http://www.lulu.com/content/511173>

¹⁴¹<http://cccoer.wordpress.com/>

¹⁴² <<http://cnx.org/content/col10413/latest/>>