Choose Generation Open: Transforming Teaching and Learning with Open Educational Resources

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Kate Hess, Kirkwood College

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Welcome

Una Daly
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OER Library Manager, CSU

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Faculty Librarian
Library Coordinator
Kirkwood Community College
Open Access Illinois

iNAM
Illinois Network for Advanced Manufacturing

DigitalCommons@C.O.D.

Illinois General Assembly
Open Access to Research Public Act of 2013
Agenda

• Open Education is evolving
• Barriers to Education
• How Openness Enables Sharing ...
• Case Studies
• Student and Faculty Impact
• Launching an OER Initiative
• Sustainability of OER
• Challenges on Your Campus
Second Open Government Action Plan
September 2014

• Promote open education to increase awareness and engagement:

  – Start dialogues and partnerships with academia, industry, and governments.
  – Pilot new models that use OER
  – Launch an online skills academy for high demand career training
What is Open Education?

... encompasses resources, tools and practices that employ a framework of open sharing to improve educational access and effectiveness worldwide.

--- Open Government

... combines the traditions of knowledge sharing and creation with 21\textsuperscript{st} century technology to create a vast pool of openly shared, free educational resources that are more responsive to learner’s needs.

-- Open Education Consortium
Worldwide Participation in Higher Education is Expected to Grow ~60% by 2025...

In order to accommodate these 98 million new students, four major universities of 30,000+ students would need to open every week for the next 15 years.

Source: [http://www.timeshighereducation.co.uk/features/a-different-world/2001128.article; OECD indicators Education at a Glance 2012 and Trends in Global Higher Education: Tracking an Academic Revolution, UNESCO 2009](http://www.timeshighereducation.co.uk/features/a-different-world/2001128.article)
...and Employers are Increasingly Seeking Skilled Workers

~90-95M low-skill workers (2.6% of the global workforce) will not be needed by employers by 2020

Employers will need ~45M more medium-skill workers and ~38-40M more high-skill workers than will be available by 2020

Source: McKinsey Global Institute
The Opportunity

- Decreased Cost
- Increased access

→

Higher percentage of individuals educated
Open Education Consortium Membership

WHAT IT MEANS TO BE GLOBAL

- 30,000+ COURSES
- 280+ ORGANIZATIONS
- 40 COUNTRIES
- 29 LANGUAGES
Community College Consortium

250+ colleges in 18 states/provinces
Education as Human Right

“Education is both a human right and a vital means of promoting peace and respect for human rights and fundamental freedoms ... to realize this potential, education must be made universally available and equally accessible to all “

Education is about Sharing

• Teachers share knowledge freely

• Students share their understanding

• Teachers share with each other.

Source: David Wiley, Why be Open, slideshare 2012
Tuition and Fees

• Undergraduate costs rose 42 percent at public institutions 2001-2011

Source: National Center for Education Statistics

http://nces.ed.gov/fastfacts/display.asp?id=76
Student Debt

• Federal Student Loan Debt
  – 1-Trillion Dollars

• Avg. loan upon graduation
  – $25,000+


The BIG BUSINESS of TEXTBOOKS

800% Rise in textbook costs over the past 30 years

65% Students who have opted not to buy a required textbook due to cost

$1,200 What the average college student spends per year on books and supplies

$4.3 billion Total earnings on higher education course materials from 1,200 publishers surveyed

SOURCES: College Board, U.S. PIRG Education Fund, Student PIRGs, Association of American Publishers

(Article): University Business: College textbook forecast: Radical change ahead
Student Impact

• 65% choose to not buy textbook

• 94% report concern that grades affected

• 48% take fewer classes or different classes
Solution:
Open Educational Resources

• Online access to textbook on first day of class.

• Free online, low-cost print option

• Faculty can adapt for students
But how to set the content free?
Use an Open License

- **Free**: Free to access online, free to print
- **Open**: Shared, usable and re-usable
- **Creative Commons**: less restrictions than standard copyright but author retains full rights.
Creative Commons Licenses

Simple, standardized way to grant copyright permissions

Permission:  Attribute-BY  Non-Commercial?  Share alike?

http://creativecommons.org

Adapted from Ronda Neugebauer Slideshare
Welcome!
Our Current Textbooks:

NEW! Chapter 0 - Prerequisites (August 2013) - A targeted review of Basic and Intermediate Algebra Topics

NEW! Corrected 3rd Editions (July 2013)
- Click to obtain the corrected Precalculus, 3rd Edition free eBook (.pdf) (July 2013)
- Click to obtain the corrected College Algebra, 3rd Edition free eBook (.pdf) (July 2013)
- Click to obtain the corrected College Trigonometry, 3rd Edition free eBook (.pdf) (July 2013)

3rd Editions (July 2011)
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- Click to obtain the College Trigonometry, 3rd Edition free eBook (.pdf) (July 2011)
- Click to obtain our errata for the 3rd Edition Textbooks (.pdf)

For printed copies of our textbooks, click on the following link: Stitz Zeager Textbooks on Lulu.com
CC licenses are unique because they are expressed in three ways.
Make it easy to find!
Modify for special needs!
Publisher: Wiley & Sons
Amazon $167.19

Publisher: OpenStax College
Digital Access - $0
Softbound: $34.31

Make it affordable!
Who creates open educational resources?

- Private Foundations
- Grant funded projects
- Educational institutions
- Faculty and other experts

Source: Lumen Learning Slideshare

$100 million from private foundations in the last decade.
Where to Find Peer Reviewed OER?
Large scale OER Projects

- U.S. Department of Labor
- OpenStax College
- Maricopa Millions
- NOVA’s OER-based General Ed
- Kaleidoscope/Lumen Learning
TAACCCCT Grants

$2 billion over four years
Materials licensed with CC-BY

Source: Cable Green, Creative Commons, 2013
TAACCCT Grants

Building Illinois’ Bioeconomy (BIB):
• Southeastern Illinois College (SIC),
• Southern Illinois University-Edwardsville,
• Carl Sandburg College,
• Lincoln Land College,
• Lewis & Clark College

Environment Health & Safety
• College of Lake County
OpenStax College

Foundation funded, peer reviewed open textbooks for top 20+ courses.

Adapted from David Harrison CCCOER webinar cc-by
$13 MILLION+
SAVED!

openstax
COLLEGE
NOVA’s OER-Based General Education Project

• 25 OER-based GE Courses
• Team development
  – Faculty, Librarian, Instructional Designer
• Saving students $200,000 per term
• Student success rates improved in most courses.
# Costs of Textbooks

<table>
<thead>
<tr>
<th>Course</th>
<th>Cost</th>
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<tbody>
<tr>
<td>ENG 111</td>
<td>$140</td>
</tr>
<tr>
<td>ENG 112</td>
<td>$93</td>
</tr>
<tr>
<td>ENG 125</td>
<td>$89</td>
</tr>
<tr>
<td>MTH 151</td>
<td>$263</td>
</tr>
<tr>
<td>PHY 201</td>
<td>$269</td>
</tr>
<tr>
<td>PHY 202</td>
<td>$244</td>
</tr>
<tr>
<td>HIS 121</td>
<td>$109</td>
</tr>
<tr>
<td>HIS 122</td>
<td>$109</td>
</tr>
<tr>
<td>ART 101</td>
<td>$226</td>
</tr>
<tr>
<td>ART 102</td>
<td>$226</td>
</tr>
<tr>
<td>HIS 262</td>
<td>N/A (new course)</td>
</tr>
<tr>
<td>SDV 100</td>
<td>$77</td>
</tr>
<tr>
<td>CST 110</td>
<td>$140</td>
</tr>
<tr>
<td>ECO 201</td>
<td>$281.80</td>
</tr>
<tr>
<td>ECO 202</td>
<td>$281.80</td>
</tr>
<tr>
<td>ITE 115</td>
<td>$182.70</td>
</tr>
<tr>
<td>MTH 152</td>
<td>$161.80</td>
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<tr>
<td>MTH 157</td>
<td>$123.55</td>
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<tr>
<td>MUS 121</td>
<td>$141.45</td>
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<td>PED 116</td>
<td>$92.85</td>
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<tr>
<td>PSY 200</td>
<td>$107.15</td>
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<tr>
<td>REL 100</td>
<td>$138.55</td>
</tr>
<tr>
<td>SOC 200</td>
<td>$114.65</td>
</tr>
</tbody>
</table>

Average cost of Textbooks = $185

Potential savings of $3600 per student
OER Teaching Impact

I make more use of culturally diverse resources
- strongly agree: 6%
- agree: 13%
- neither agree nor disagree: 14%
- disagree: 14%
- strongly disagree: 16%

I collaborate more with colleagues
- strongly agree: 3%
- agree: 5%
- neither agree nor disagree: 1%
- disagree: 3%
- strongly disagree: 4%

I use a broader range of teaching and learning methods
- strongly agree: 21%
- agree: 22%
- neither agree nor disagree: 2%
- disagree: 2%
- strongly disagree: 2%

I have a more up-to-date knowledge of my subject area
- strongly agree: 19%
- agree: 18%
- neither agree nor disagree: 2%
- disagree: 2%
- strongly disagree: 2%

I more frequently compare my own teaching with others
- strongly agree: 18%
- agree: 22%
- neither agree nor disagree: 2%
- disagree: 2%
- strongly disagree: 2%

I have improved ICT skills
- strongly agree: 16%
- agree: 23%
- neither agree nor disagree: 4%
- disagree: 2%
- strongly disagree: 4%

I now use OER study to develop my teaching
- strongly agree: 14%
- agree: 19%
- neither agree nor disagree: 3%
- disagree: 1%
- strongly disagree: 3%

I have broadened my coverage of the curriculum
- strongly agree: 14%
- agree: 19%
- neither agree nor disagree: 1%
- disagree: 1%
- strongly disagree: 5%

I reflect more on the way that I teach
- strongly agree: 13%
- agree: 22%
- neither agree nor disagree: 5%
- disagree: 3%
- strongly disagree: 3%

I make use of a wider range of multimedia
- strongly agree: 6%
- agree: 13%
- neither agree nor disagree: 3%
- disagree: 3%
- strongly disagree: 3%
Maricopa Millions: Saving Students $5 M in 5 Years

• District-wide funded OER project
  – 10 Colleges, over 250,000 students
• Developing OER courses for General Education.
• Finalizing OER quality rubric
• Students can search for courses that use OER when registering.
Student Savings and Student Voices

OER Savings Progress

- Accounting
- Chemistry
- Psychology

Spring 2014: $1,483,175
Spring 2013: $818,000
Fall 2013: $665,175

maricopamillions
Solving Students Money with Open Educational Resources
Open Textbook Ratings by Students

- **Worse quality**: 3%
- **Same quality**: 56%
- **Better quality**: 41%

- “It was very concise and aligned with exactly what we were working on in the class.”
- “Having the textbook catered to us by our teacher was perfect.”

Developmental Math Results
Percentage passing with C or better

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2011</td>
<td>48.40%</td>
</tr>
<tr>
<td>Spring 2013</td>
<td>60.18%</td>
</tr>
</tbody>
</table>

n=2,842

Adapted from slides by David Wiley available under CC BY at http://www.slideshare.net/opencontent
Launching an OER Initiative
The Roadmap

Step 1: Needs Assessment

Step 2: Strategic Planning

Step 3: (Re)Write The Plan

Step 4: Implement the Plan

Step 5: Evaluate how it went
Step 1: Needs Assessment

• Surveys or interviews with stakeholders
  – Faculty
  – Librarians
  – Students
  – Deans
  – Curriculum Committee
  – Bookstore Manager
  – President, Board of Trustees, etc
  – Other College OER Leaders
Step 2: Strategic Planning

• Set measurable goals with timeline
  – Alignment with college planning
• Identify sponsorship and funding
  – Internal and external
• How to create awareness
  – Campus activities
• IT Support requirements
  – Web pages, blogs, social media
Step 3: Write the Plan

- Faculty and staff development plans
  - Training and incentives
- Marketing plans
  - Internal and external
- Student outreach
- How to measure the outcomes
  - Adoptions, $$$ saved, student success
- Second phase funding
Step 4: Roll-out the Plan

- Regular Communications
  - Website, blog, emails?
- Mechanisms for feedback
  - Making adjustments
- Surveys for faculty and students
  - Enough but not too many
- Recognize champions on campus
Step 5: Evaluate and Regroup

- Evaluating the feedback
  - Follow-up with key constituents
- Measuring outcomes
- Publishing the results
- Thanking the contributors
- Strategic planning Phase 2
Open Education Sustainability

- Add OER to strategic plans
- Support faculty OER adoption
- Include students
- Openly license when possible
- Ensure OER is accessible
- Track your progress, celebrate the heroes
- Join the open education community

Judy Baker, 2010 and Cable Green, 2014
November 19-21 | Washington, D.C.

www.openedconference.org
Need Help Getting Started?

• Find & adopt open textbook workshops
• Understanding open licenses
• Online accessibility
• Faculty and student surveys
• Access to community of OER practitioners & experts
• Monthly webinars
Fall 2014 Webinars
2nd Wed, 10:00 PST (1:00 PM EST)

Finding and Adopting Open Textbooks
Wed, Sept 10, 10:00am Pacific (1:00 pm EST)
Featuring speakers from OpenStax College, BCcampus, and the California Open Textbook Initiative

Open Course Design and Development with UMUC, Lumen
Wed, Oct 8, 10:00 am Pacific (1:00 pm EST)
Featuring speakers from Lumen Learning, UMUC, and Northern Virginia Community College.

Opening up Pedagogy with Open Educational Resources
Wed, Nov 12, 10:00 am Pacific (1:00 pm EST)
Featured speakers will include college instructors and their students sharing how the use of open educational resources changed their learning experience.

OER Research and Open Access
Wed, December 10, 10:00 am Pacific (1:00 pm EST)
Featured speakers will include those actively involved in system-wide and global OER research projects and the SPARC Open Education project.

Archived webinars available at http://oerconsortium.org
Thank you!

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