Session M345
ELD Lightning Talks
Connections at Boise State University

New Core Curriculum, B Mobile and the Library

Presented by Beth L. Brin
Boise State University Albertsons Library
UNIVERSITY FOUNDATIONS: New Core Curriculum

• Freshman: 100 – Intellectual Foundations
• Sophomore: 200 -- Civic and Ethical Foundations
• Transfer students: 300 -- Intellectual/ Civic/ Ethical Foundations
• Learning Outcomes
B Mobile; mLearning Scholars
http://mobilelearning.boisestate.edu
Library UF iPads
UNIVERSITY FOUNDATIONS: New Core Curriculum

Academic Departments are responsible for:

- Junior (Sophomore): Communication in the Discipline (CID)
- Senior: Finishing Foundations (FF)
  - Capstone = Senior Design Projects
Beth L Brin, Connections at Boise State University: New Core Curriculum, B Mobile and the Library
Email bbrin@boisestate.edu

THANK YOU

Links:
http://academics.boisestate.edu/fsp/university-learning-outcomes/
http://mobilelearning.boisestate.edu
First Year Undergraduate Research: Librarian as a Research Mentor

Jim Clarke
Engineering Librarian
Miami University
ASEE ELD, 2013
First Year Research Experience FYRE

Goal:

Means:
Key Program Challenges

1. Relatively new program
2. Defining undergraduate research
4. Unclear impact on faculty tenure & promotion
University Libraries Role

Traditional Roles:

New Role:
Weekly Group Project Meetings

- Facilitate literature analysis discussions
Wooden Baseball Bat Optimization
Megan Stoy, Cody Upp, Leilei Zhang
Advisor: James Clarke
Miami University

Introduction

- Wooden baseball bat design and production is a multi-million dollar industry.
- Bats are currently made to fit a player's personal preferences.
- Wooden baseball bats are made out of Maple or White Ash.
- Bats must be one piece, solid, and comply with Major League Baseball length and weight requirements.
- Optimize a bat by making the largest and most effective sweet spot possible.
- The sweet spot is where least amount of vibrations can be felt in the handle.

Methods

- We began by deciding which wood, Maple or White Ash, we would use to make our bat. This decision was based on the following factors:
  - Modulus of Elasticity (MOE) – an object's tendency to deform when force is applied.
  - The higher the MOE, the better. This way the bat will bend instead of breaking when contact is made.
  - Hardness – determined by measuring the force necessary to embed a .444-inch steel ball to half its diameter.
  - After deciding to use Maple (due to its hardness and larger MOE), a billet is chosen based on the following factors:
    - Face grain vs. edge grain - bat stronger when contact is made on face grain.
    - Slope of grain - better strength performance when the grain is straight.
    - Closeness of grains - the closer the grains, the stronger the bat.
- We will measure the dimensions of a control bat using an electric calipers and a 3D scanner.
- These dimensions will then be converted into code for use on a Computerized Numerical Control Lathe.
- The control bat will be produced and tested using the Miami University baseball team.
- We will measure the length/location of the sweet spot with vibration testing and the effectiveness with outgoing ball velocity.
- Using the equations of the variables affecting the sweet spot, we will create a MATLAB program that links the variables.
- With this program we will develop improved dimensions and again produce the bat with a CNC lathe.
- The bat will be tested in the same fashion as the control and the results will be compared.

Data

- Scanning the baseball bat with a 3D scanner.
- Tracing and measuring the baseball bat with a ruler and calipers.

Expected Results

- The dimensions will be able to be converted into CNC code for use in turning the bat.
- The vibrations can be tested at each point on the bat for use in determining the location and size of the sweet spot.
- We will be able to use applied calculus to create a matrix connecting the various formulas and variables.
- These new dimensions will be able to translate into a MLB legal bat.
- The prototype will produce considerably different performance data from the control.
- It is expected that we will be able to optimize the sweet spot without jeopardizing the integrity of the bat.

References

Note, T. (2006). Detection of the Baseball Bat Sweet Spot through Vibration Testing. (Figure 2), 5–6.
Lessons Learned

Challenges

• Reading vs. “hands-on” work.
   Unreliable faculty collaboration.
   Some oppose accelerated learning.
   Limited student skills.

Strengths

• Students embraced scholarly literature.
• Learning outcomes were increased.
• Upper class students are assets.
Next Steps

• Repeat the project next year.
• Work with Louisville Slugger.
• Recruit ASME chapter upperclassmen.
• Produce a case study article.
E-Book Statistical Analysis: Lessons Learned

Charlotte Erdmann and Stewart Saunders
Purdue University Libraries
2013 ASEE Engineering Libraries
Session M435: Lightning Talk
Preliminary Study

Large university library with significant collection has created a statistical model to analyze e-book usage

The lightning talk will discuss:
• Methods and Data Analyzed
• Results
• Lessons Learned
Methods

Download E-book public catalog (OPAC) records

- MARC records with Library of Congress Classification preferred but all monograph records are acceptable

Download usage reports from vendor

- Reports from several vendors’ were available. For this study, one vendor was chosen

Match vendor E-book titles to Libraries’ OPAC records using Microsoft Access

- Use ISBN or title
Data Analyzed: 2010-2012

MARC Record
- Title, ISBN, publication year, and many other fields
- LC Classification
- Create Date, i.e. First date in public catalog

Total Months that E-Book was Available
- Calculation from Create Date to December 31, 2012
  - Analyzed titles had 12 months or more of availability

Vendor Records
- Title and ISBN
- Number of Uses for 2010, 2011, 2012
- Calculated total usage
## Results by Major LC Classes

<table>
<thead>
<tr>
<th>LC Class</th>
<th># Titles</th>
<th>Total Use</th>
<th>% Total Use</th>
<th>Total Months</th>
<th>Total Months in Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q-QR</td>
<td>572</td>
<td>19,896</td>
<td>12.74%</td>
<td>18,492</td>
<td>22.16%</td>
</tr>
<tr>
<td>R-RZ</td>
<td>804</td>
<td>16,893</td>
<td>10.81%</td>
<td>22,754</td>
<td>27.27%</td>
</tr>
<tr>
<td>SF</td>
<td>170</td>
<td>89,233</td>
<td>57.13%</td>
<td>5,237</td>
<td>6.28%</td>
</tr>
<tr>
<td>T-TX</td>
<td>820</td>
<td>23,320</td>
<td>14.93%</td>
<td>24,294</td>
<td>29.12%</td>
</tr>
<tr>
<td>All Others</td>
<td>410</td>
<td>6,860</td>
<td>4.39%</td>
<td>12,660</td>
<td>15.17%</td>
</tr>
</tbody>
</table>

**Total**

2776 | 156,202 | 100.00% | 83,437 | 100.00%
SF – Veterinary Medicine Results

170 Titles in Vet Med
- 89,233 Uses
- 57% of All Use

95 Titles from Two Library Guides
- 75,380 Uses
- 48% of All Use
Lessons Learned

Matching records

- Mixture of serial and monograph records complicated matching
- ISBN – Successful 75%, Title 24%
- Research necessary for final 1%

Mining classification

- Previous experience was helpful in getting LC classification from MARC record

Consider Library Guides to help clients find e-books

- Preparation may offer awareness tools for specialized audiences
This is a continuing research study

Thank you for your consideration

Contact information

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erdmann@purdue.edu

Stewart Saunders
ssaunder@purdue.edu
Cool, Calm and Collaborative

An update to Dim, Dark and Daring: our process for rapidly reducing our collection.
Pre-2011
As seen in this slide, the USC Viterbi School of Engineering Distance Education Network (DEN) is featured prominently. The slide highlights the school's ranking in the Best Online Engineering Ranking by "U.S. News & World Report," emphasizing their recognition in the field of engineering education. The presentation, titled "ASEE/ELD CONFERENCE Atlanta, GA, 2013," seems to focus on showcasing the school's achievements and the importance of online engineering education.
Best Online Engineering Ranking by “U.S. News & World Report”

The USC Viterbi School of Engineering garnered the No. 1 slot in two categories in the latest 2012 U.S. News & World Report Rankings. The School received top honors in the Online Graduate Engineering Programs and Online Computer Information Technology/Computer Science Programs rankings. The Distance Education Network (DEN) at USC Viterbi, one of the first of its kind, offers more than 40 online engineering master’s degrees, graduate certificates and continuing education programs to students around the world, and topped a list of the best online engineering master’s programs in the country with degrees in over 21 engineering disciplines. The “DEN” rankings reflect excellence in a variety of academic areas, including reputation among peer institutions, and are based on: Admissions Selectivity; Faculty Credentials & Training; Student Services & Technology; and Student Engagements.
Enabling professional engineers to earn their master’s degree online while continuing to work full-time, the USC Distance Education Program was created at USC in 1972 to address the continuing educational needs of Southern California’s aerospace industry, following four decades of growth and investments. DEN@Viterbi students range from active military personnel who are deployed overseas to employees of corporate partners, such as Qualcomm, Boeing, TRW, Northrop Grumman, Aerospace Corp, Korean Air and Kuwait Oil Com., among others from Southern California, the U.S. and abroad.
The latest innovation for the School is the iPodia Alliance, an online education collaboration between USC and schools in China, Taiwan, Germany, India, Israel and South Korea. This allows the students to work together from areas around the globe in real time in a fully interactive “classroom without borders.” In this environment quality remains strong as the scale increases with technology-enhanced learning to connect faculty with students. The USC Viterbi’s online education thus integrates a blended classroom model, allowing distance students to engage and learn from the School’s research faculty, not differentiating between on-campus and off-campus graduate and professional students. Enforcing the same admission standards and graduation criteria for everyone has enabled USC to deliver the same high quality education for all students. Virtually, IPodia brings the world to USC.
The Distance Education Students and faculty have access to the USC Libraries provided through the Off-Campus & Wireless log-in by using Proxy Server & VPN. Direct access to the Librarians is available by clicking on the Special Link: library@den.usc.edu

Presented by: Najwa L. Hanel, MS, BS, BA
University Librarian
USC Libraries, Science & Engineering Library
3 Ways For Libraries to Engage STEM Disciplines

Nastasha Johnson, F.D. Bluford Library

North Carolina Agricultural and Technical State University
Student Organizations

IEEEExplore

grant competitions

NSCE

Vendor

ASCE

AlChE

t-shirts

partner & Engage

outside the University

pizza
Partner & Engage Within the University

Grants

Scale-UP
State Grants
Student Success & Retention
Space

Collection Development Grants

Math Emporium

Federal Funds
Google: Regional STEM meeting
Neighboring Institutions
ACRL’s Project Kaleidoscope
NIH & NEH workshops
ASEE Regional Meetings
Non-library anything!

Partner & Engage Regionally
Thank you!

Nastasha E. Johnson
Assistant Professor/ Reference Librarian
F.D. Bluford Library
nejohns1@ncat.edu
336-285-4219
(Based on a blog post, ACRL ULS, Feb 2013)
HISTORY & SET UP

• Contacted by Geb Thomas
  • (Associate professor in Mechanical and Industrial Engineering)
  • Had money through a grant to promote student hands on training

• Policies
  • Due to hazard and risk management, we did not get any power tools just hand tools
  • 1 week checkout

• Boxes
  • Tools, Barcodes, Due Date Slips, and policy information

• Cataloged
  • They are cataloged as permanent course reserves
• **Hand Tools**
  - Wrench
  - Pliers
  - Screwdrivers
  - Video Game Screwdriver Set
  - Socket Set
  - Hex Key Sets (SAE and Metric)
  - Mini Torx Dual Material Screwdriver Set
  - Mini Screwdriver Set
  - 25-Foot Measuring Tape

• **Measuring Tools**
  - Digital Caliper
  - Infrared Thermometer
  - Digital Sound Level Meter
  - Light Meter
  - RMS Multimeter
  - Digital Micrometer
  - Digital Gram Weigh Scale
  - Tubular Spring Scales

• **Specialty Tools**
  - Security Bits Collector 39 Pc Set
  - Computer ToolKit
  - Magnetic Angle Locator
OUTREACH & MARKETING

- Slides in Digital Picture Frames at Circulation Desk
- Slides Running in the Plasma TVs throughout the Engineering Building
- In the Engineering Weekly Newsletter
- Faculty of Engineering Problem Solving
  - Main Intro Class
- Faculty requiring the usage for Activities

Tool Library
Need to borrow a hand, measuring, or specialty tool for a project?

http://www.lib.uiowa.edu/eng/tools.html

Lichtenberger ENGINEERING LIBRARY
STATISTICS

- **109 Total Checkouts**
- **Tape Measure is the Most Checked Out Item**
ITEMS REQUESTED

- More light and sound meters
- Laser measuring tools (distance and angles)
- Calculators
- Tablets for writing structures, etc.
- Box Cutter
- Glue Gun
- Needle nose pliers
- Wire cutters
- Protractor
- Rulers
- Compass
- Level
ANY QUESTIONS?

Kari A. Kozak
University of Iowa
Head, Lichtenberger Engineering Library
Kari-Kozak@uiowa.edu

http://www.lib.uiowa.edu/eng/tools/
Patron Space:
3,320 seats

Group Study Rooms

- 19 small (4 seats)
- 6 Medium (6 seats)
- 3 Large (10-12 seats)

Total 28
View from Park and Linden
Faculty and Graduate Center
THANK YOU!
HELPING ENGINEERING STUDENTS BUILD SOLUTIONS
HAND TOOLS IN THE LIBRARY

6/24/2013

ASEE ELD LIGHTNING TALK
Dee Magnoni
SOLVING TRAGEDY OF COMMONS AND MEETING STUDENT NEEDS

Helping to build the tools ecosystem at Olin
THANK YOU!
And Thanks to the Olin Class of 2012, whose senior class gift was the hand tools collection.

Dee Magnoni
dianna.magnoni@olin.edu
LinkedIn: deemagnoni
Predatory Publishing

Jill Powell, Engineering Librarian, Cornell University
ASEE National Conference, Lightning Round
Atlanta, June 24, 2013
What is Predatory Publishing? Why is it important?

Predatory Practices

• No peer review
• Journals may not recognized by review boards
• Author fees without disclosure
• Editorial board members listed without permission
• Lots of journals, few articles
• Use gmail addresses
• Example - http://www.ijheps.org/
Welcome to IJHEPS

"International Journal of Humanities, Engineering and pharmaceutical sciences" is an effort to get the intelligenta and the people of academic interest at a platform where they can express as well as contribute with the ideas that may nourish innovation, entrepreneurship, scientific and technological skill. The Journal intends not only to associate scholars of social sciences and humanities with their works of innovation, but also the scholars and researchers of science and technology............

( Dr. Rajendra Kumar Tiwari, Chief Editor)

We offer the publication of genuine research papers/review articles in the following areas:

**Humanities**
- Arts
- Management
- Social Sciences
- Agriculture

**Engineering**
- Electronics & Communication
- Computer Science
- Electrical
- Mechanical
- Civil
- Information & Technology

**Pharmaceutical Science**
- Pharmaceutics
- Pharmacology
- Pharmacognosy
- Pharmaceutical Chemistry
- Pharmaceutical Analysis
- Pharmaceutical Biotechnology

Correspondence will be made only by the principal author and the soft copy of the Papers/Articles must be sent by email.
Entomology 2013 or Entomology-2013?

**Entomology 2013** | Entomological Society of America (ESA)
www.entsoc.org/entomology2013
img_assist[nid=17734][align=right][width=252][height=257]The ESA Annual Meeting is the PREMIER event for the world of entomology. If the entomological ...

**Future ESA Annual Meetings** | Entomological Society of America (ESA)
www.entsoc.org/am(fm/index

**Entomology-2013 - OMICS Group**
www.omicsgroup.com/conferences/entomology-2013/
OMICS Group invites all the participants across the globe to attend the International Symposia on Entomology (ISE-2013) during September 04-06, 2013 at ...

**2nd Global Conference on Entomology**
www.gce2013.com/
OMICS Group invites all the participants across the globe to attend the International Symposia on Entomology (ISE-2013) during September 04-06, 2013 at Holiday Inn Orlando International Airport, Orlando-Florida, USA.

ISE-2013 is to showcase advances in entomological research and development in the insect world. The skills and knowledge of entomologists are needed worldwide helping farmers to produce crops and livestock more efficiently through sound pest management strategies, fighting to save endangered species and fragile ecosystems, and preventing insects from spreading agents that cause diseases. We are inviting all the entomologists and researchers, logistics practitioners to share experience, foster collaboration, and advance industry, academia, and evaluate emerging technologies across the globe.

We are sure that this conference will fit into the series of these developing gatherings of our entomologists, and will be outstanding not only as its content and atmosphere are concerned. The scientific program paves a way to gather visionaries through the research and presentations and put forward many thought provoking strategies in Entomology.
Why the concern?

• Prey via spam on grad students, faculty, librarians

• Journal titles in our catalog via DOAJ records

Purfect Peer Review!
http://www.flickr.com/photos/kucherov/818857030/
Engineering Design the Library

Michelle Spence
Welcome to ESP

ESP is a foundational course, offered in first year engineering at the University of Toronto, that uses the engineering design process as a context for developing skills in Professional Communication, Problem Solving, Independent Thinking, Systems Thinking, and Team Dynamics.

About the Course

The role of engineering in society, our relationship with the environment, and the potential and importance our work holds for people is a theme in Engineering Strategies & Practice (ESP).

This innovative course is designed to foster excitement for engineering through projects that combine creativity and logical methodology. Effective use of written, oral, and graphic professional communication is developed as the term progresses.

News

An ESP project from Winter 2011, the design of a basketball court for the Lotherton community, was constructed in the Summer of 2012. A ceremony for the court launch was held on July 14, 2012.

To be implemented: a mule-driven train that connects wheelchairs to transport disabled children inside a playground facility in Somalia that was designed by two ESP teams in Winter 2012 for Horn of Africa Sick Childrens Charity.

Let our first-year engineering students design solutions for your projects/problems/challenges for free!

Would you like more information about being project clients?

Quick Links

Contact Us
Please feel free to contact us at esp@ecf.utoronto.ca

Design Projects
Student design teams tackle real design problems for real clients at no cost to the client. We are always looking for clients to propose projects.

Seminars
Volunteer Seminar Leaders facilitate student discussion of the technical, social, ethical, and/or political issues associated with a topic selected by the Seminar Leader. We are always looking for volunteer Seminar Leaders.
The Problem:

- Moving journals to off-site storage

- What do we do with the space we will get?
The Solution

- 5 potential designs proposed
  - 1 recommended by the group
- Students’ perspective
- Engineering approach
Teaching in a Scale-Up Classroom

Larry Thompson
Engineering Librarian
Virginia Tech
So, what’s a Scale-Up Classroom?

Student-Centered Active Learning Environment for Undergraduate Programs
OK, but what does that mean?

At Virginia Tech, it means . . . . .
What are the keys to remember when teaching in the room?

Interactivity
Relevancy
Flexibility
HERE’S CELT!

CRITICAL ENGINEERING LITERACY TEST

BROUGHT TO YOU BY THE INFOSKILLS RESEARCH TEAM AT PURDUE

Amy S. Van Epps
Associate Professor of Library Science, Engineering Librarian
WHAT IS IT?

20 questions
2 scenarios
Multiple choice

Engineering and Science Focused
USES

Homework

Pre/post test

Baseline

In Class Exercise
AVAILABILITY OF CELT

• Paper version
  • On PURR
    https://purr.purdue.edu/publications/1118/?v=1
  • DOI: 10.4231/D3P26Q35R

• Purdue Hosted via Qualtrics

• Locally Hosted
  • Share the deidentified results
Can a Library Café lead to More Collaboration?

ASEE/ELD
watkinp1@erau.edu
June, 2013
TIMELINE: 2010 - 2013

- SACS, ABET re-accreditation
- QEP required: library writes "Innovating to meet Needs of 21st Century Learners"
- Librarian-defended white paper makes it to Final 10
- SACS Approves QEP, 2012: IGNITE RESEARCH
- URI in library, Discovery Day, SLOs imbedded into IL
Librarian team mentor - SWOT analysis of library services, resources

GOAL - How to advance library mission:
+ Build increased awareness.
+ New marketing activities.

SWOT Findings -
+ Social media, library app
+ Environment
+ Enhanced image – coffee house feel
+ Prize drawings, social events
PERFECT STORM: QEP + SWOT

2010 - 2012

- QEP: 2010-2012
- BA 311 study findings (2011)
- Fresh QEP collaborations
- SLOs imbedded into curriculum

2013

- Scholar Café, coffee budget
- Grants, QEP offices in library
- URI & Research Resource Center
2013 EVENTS

Hazy Library Photo Contest
National Library Week
April 14–20
HAZY LIBRARY ROCKS!

Get out your camera or cellphone. Take a picture in the library that reflects how the Hazy Library ROCKS!

- Tag the Hazy Library Facebook page or email to prlib@erau.edu.
- Entries must contain the title of the photo, your name and contact info.
- Entries must be received by midnight April 7th.
- A panel of judges will decide the first, second, third and honorable mention.
- Prizes presented at a noon reception at the Scholars Café.

http://library.erau.edu

Congratulations!
12 Noon
BY INVITE ONLY

magnetic poetry kit
FROM THE MAKERS OF THE ORIGINAL MAGNETIC POETRY KIT
OVER 200 BRAINY WORD MAGNETS
A box of words that will expand your brain power

GENIUS

ZOMBIE

magnetic poetry kit
FROM THE MAKERS OF THE ORIGINAL MAGNETIC POETRY KIT
OVER 200 WORD MAGNETS
PROGRAMMED TO EXPLODE IN CREATIVITY

GEEK
CONTEST RECEPTION!
Hazy Library and Learning Center presents
2013 Engineering Week: Mini-Film Festival
1st Floor, Library Room 123, 5:30 p.m.

Rocketeer, Tuesday, February 19th

October Sky, Wednesday, February 20th

There Will Be Blood, Thursday, February 21st

RAFFLE. REFRESHMENTS!!

CELEBRATE AWESOME
FUTURE

- **Coffee budget**: Faculty collaboration in Scholar Café
- **2013-14 Strategic Plan**: Connect w/new faculty, update resources, new programs in Library; new instruction tools (Bb); re-skilling, changed culture
- **URI**: 3-D printer, Research Resources center, ASK desk nearby.
THE BEGINNING
FIRST-YEAR COMPOSITION FOR ENGINEERS: OPPORTUNITY FOR LONGITUDINAL COLLABORATION

BRIAN YOUNG
UNIVERSITY OF MISSISSIPPI
ENGINEERING REFERENCE LIBRARIAN
• Context:
  
  - Relatively new approach to composition at university
  
  - Relatively new composition instructor
  
  - New engineering reference librarian

*Ideal environment for collaboration!*
• New approach (at UM)

- Use repository of prior work to facilitate student work

  - WRIT 101 - Topic wikis (e.g., hydraulic fracturing) – Fall 2014
    - Suggested research questions
    - Suggested resources

  - WRIT 102 – Research work products – Spring 2013
    - Data and data collection tools
    - Annotated bibliography
    - Final report (including suggestions for future research)
    - Poster presentation
• Outcomes (student perspective)
  - Expedite topic selection process for students
  - Provide students an audience other than instructor
    - Simulate scholarship process / establish student author(ity)

• Outcomes (teacher/librarian perspective)
  - Peer work resonates more with students
  - Concrete examples to draw on when instructing
Concrete Examples

- Websites as sources
  - buzzle.com
  - Suite101.com

- Available data to support writing
  - American infrastructure
  - Hydraulic fracturing

- Citations
  - Exercise on locating source from citation