Open Access Textbooks

The Brave New World at UF

Open Texts and eBooks: What's the difference?

Open Textbooks

- Can be viewed/read infinate # of times to infinate # of devices for <u>no</u> cost online
- Are permanently available in a repository or as a download
- Can be printed for a low cost
- Can usually be modified or customized

eBooks (Publisher)

- have **restrictive** licenses (e.g. no modifications)
- are only **accessible for a limited time period**
- usually have **restrictions on the amount of material   students can print out**

The cost of required textbooks has caused me to -

	Frequently	Occasionally	Seldom/Never
Not register for a course	6.7%	17.1%	76.2%
Withdraw from a course	2.6%	8.0%	89.4%
Fail a course	1.9%	5.3%	92.8%
Not purchase the textbook	20.7%	30.2%	49.1%

Factors affecting the likelihood of a decision to use of open access materials:

Colleges and university rankings closely aligned.

Top 4 Factors:

1 – **Academic quality** (Highest rank)

2 – Time to review, find, select materials

3 – Knowledge

4 – Desire to reduce student costs

Lowest ranked factor – Impact on bookstore

Factors affecting the likelihood of decision to develop of open access materials:

Top 6 Factors:

1 – **Time** to review, find, select materials (**Highest** rank)

2 – **Hardware, software** to facilitate develop

3 – Desire to **reduce student costs**

4 – **Assure** materials are **peer-reviewed and edited**

5 – Availability of **author review criteria**

6 – **Administrative support** for efforts

Key Open Textbook Pieces

Repository

WebAssign

University Press of Florida
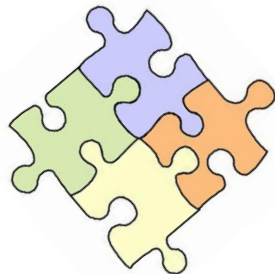
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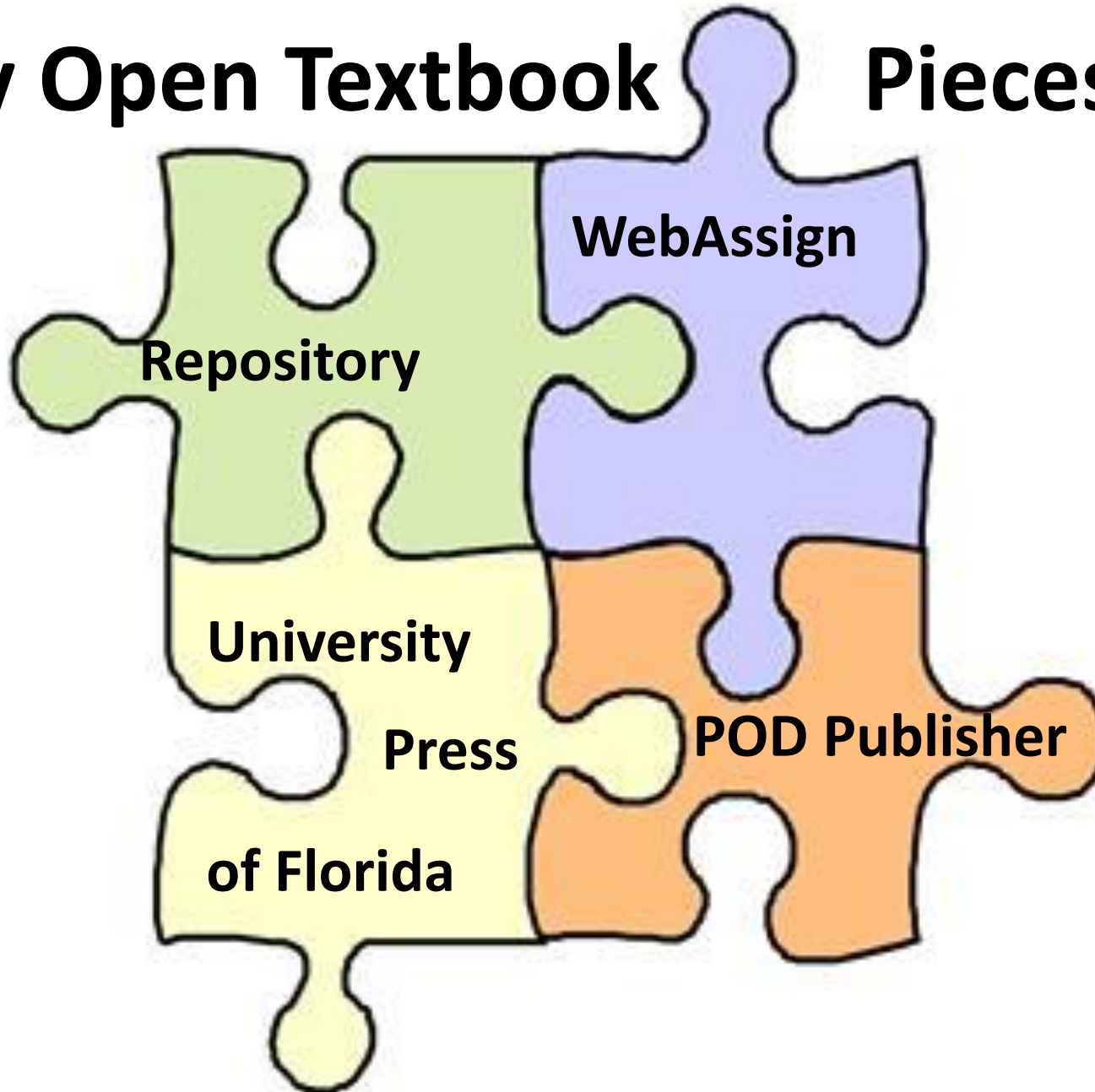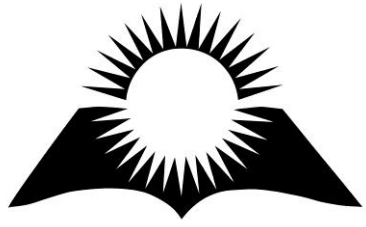
The University Press of Florida

Highly recognized and regarded scholarship dissemination for state

- **Acquisitions**: select and guide textbook projects

- **Development**: editing, design, index, ISBN #, proof, print, marketing, sales

- **Distribution**: bookstores (malls and campus)

Solution to Identified Need: Quality is #1 priority for both faculty and student leaders when selecting or using textbook

WebAssign

•Independent Company in Raleigh, NC - **www.webassign.net**

- Dynamic online homework system with feedback
- Automatically graded, tracked assignments
- Multiple question types
- Tools to enter mathematical and chemical notation
- Embed links to open textbook content, videos, tutorials etc.
- Offer instructors the ability to embed personal content (questions, notes, videos) and deliver truly customized courses
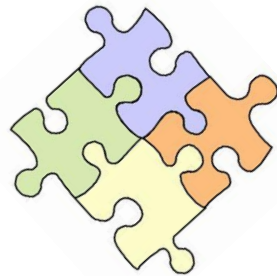
Solution to Identified Need: 89% of student survey respondents indicate that practice problems improve their grades

Copyright

- The Orange Grove owns **NOTHING**!

- **Supports Creative Commons License**
    - **You keep your copyright** but allow people to copy and distribute your work provided they give you credit — and only on the conditions you specify here.

Administrative Support

- UF Provost has seed money for work for hire or release time for department

- Fees go into departmental budgets to pay for updates/additions

- Can reside in UF's IR

- Office of E-learning can help with techno side

- Its your book for your way of teaching

Dr. Sergei Shabanov

- Co-Author of Concepts in Calculus I and II
- Associate Professor Mathematics
- Affiliate Professor of Physics
- University of Florida
- Teacher of the Year

Concepts in Calculus I

Beta Version

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Miklos Bona and Sergei Shabanov

University of Florida Department of Mathematics

Functions

1. Functions

A *function* f is a rule that associates to each element x in a set D a *unique* element $f(x)$ of another set R. Here the set D is called the *domain* of f, while the set R is called the *range* of f. The fact that f associates to each element of D an element of R is represented by the symbol $f : D \to R$. Instead of saying that f associates $f(x)$ to x, we often say that f *sends* x to $f(x)$, which is shorter.

If the sets mentioned in the previous definition are sets of numbers, then it is often easier to describe f by an algebraic expression. Let $\mathbf{N}$ be the set of all natural numbers (which are the nonnegative integers). Then the function $f : \mathbf{N} \to \mathbf{N}$ given by the rule $f(x) = 2x + 3$ is the function that sends each nonnegative integer n to the nonnegative integer $2n + 3$. For instance, it sends 0 to 3, 1 to 5, 17 to 37, and so on. In this case, the algebraic description is simpler than actually saying "f is the function that sends n to $2n + 3$."

The rule that describes f may be simple or complicated. It could be that a function is defined by cases such as

$$f(x) = \begin{cases} 0.1x & \text{if } 0 \le x \le 40, \\ 4 + 0.15(x - 40) & \text{if } 40 < x \le 80, \\ 10 + 0.2(x - 80) & \text{if } x > 80. \end{cases}$$

How "Concepts in Calculus was built

- Existing lectures notes rewritten into narrative form
- Problem sets taken from existing open access Calculus texts
- Those same problems added Web Assign
- MOU between UF Mathematics and UPF
- Two months from start o finish
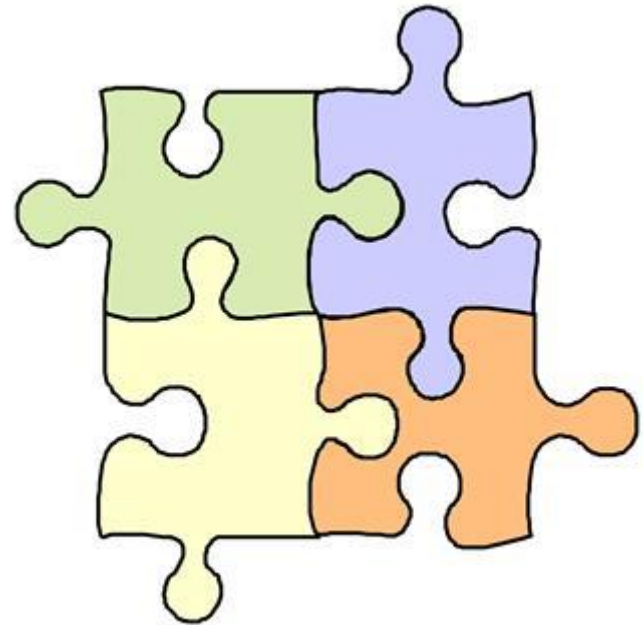
The Sustainability Model

- Seed money to create the text
- $25 paperback edition
- Should students buying print edition support the experiment?
- OPEN ACCESS FEE
- ½ to UF Mathematics, ½ to UPF for updates
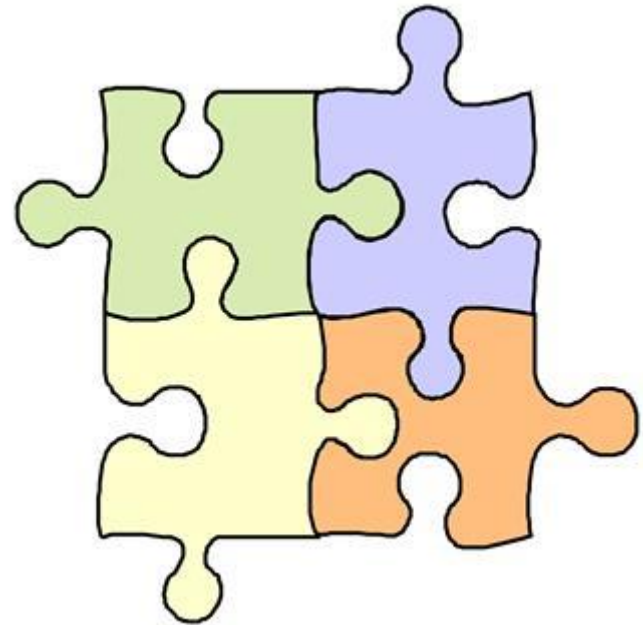
The University Press
Open textbook Consortium

Commitments

- Alabama
- Akron
- Athabasca
- Calgary
- Fordham
- Michigan
- Michigan State
- New Mexico
- Nevada

- North Georgia
- Purdue
- Rutgers
- Temple
- Tennessee
- Wayne State
- Yale

Your Questions?

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