### **University of Massachusetts Amherst**

### From the SelectedWorks of Marilyn S. Billings

November, 2014

### Libraries Leading the Way on the Textbook Problem

Marilyn S Billings, *University of Massachusetts Amherst*Charlotte Roh, *University of Massachusetts - Amherst*William M Cross, *North Carolina State University at Raleigh*Brendon O'Connell, *North Carolina State University at Raleigh* 





# Libraries Leading the Way on the Textbook Problem



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# <u>Outline</u>

Libraries Leading the Way at UMass-Amherst

**The Open Education Initiative** 

**Libraries Leading the Way at NCSU** 

The NCSU Alt-Textbook Program

**Lessons Learned** 



# THE OPEN EDUCATION INITIATIVE AT UMASS AMHERST

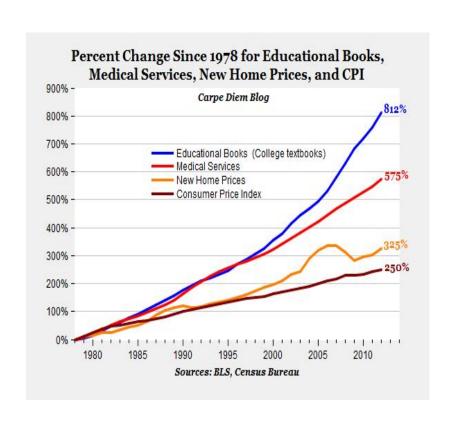
**Seeking Alternatives to High-Cost Textbooks** 

Marilyn Billings and Charlotte Roh Charleston Conference 2014 Based on Marilyn Billings' OER Summit Presentation (October 2013)





# Why Open Education?





"I stopped buying textbooks my second semester here."

- Marieme T., UMass Amherst Class of 2014



# **Seeking Solutions**

- The Provost's Office and the University Libraries of the University of Massachusetts Amherst launched the Open Education Initiative (OEI) in the Spring of 2011.
- The OEI is a faculty incentive program (a small grant) that encourages:
  - the creation of new teaching materials,
  - the use of library subscription materials,
  - or the use of existing open (free) information resources to support our students' learning.

### **OEI Workshops / Consultations**

- Workshops reviewing available OERs and library-licensed resources
- Individual consulting sessions for faculty with Scholarly Communication and subject liaison librarians, IT staff and others as needed
- •Topics covered: library databases, OER availability, copyright and licensing issues, accessibility concerns, creating a sustainable curriculum with OERs, managing resources in the LMS, assistance with creation of new content



# **OEI Grant: Faculty Proposals**

- Basic course information
  - Number of students
  - Current textbook(s) and cost
- Anticipated implementation date
- Narrative (500 words)
  - Outcomes
  - Sustainability
  - Challenges
  - Assessment



Photo credit: Derek Jensen aka FireChickenTA99

The current application form can be seen at <a href="http://goo.gl/forms/NRH9IQTF2L">http://goo.gl/forms/NRH9IQTF2L</a>

## **Success Stories**

Faculty	School/College	Course	Proposed Savings Per Student	Proposed Course Savings	Actual Savings as of Spring 2014
Miliann Kang	College of Humanities & Fine Arts	Women's Studies 187: Gender, Sexuality and Culture	\$75	\$22,500	\$45,450
Charlie Schweik	College of Natural Sciences	Natural Resource Conservation 592: Introduction to Geographic Information Systems	\$50	\$1,500	\$12,400
Pam Trafford	Isenberg School of Management	School of Management 797: Financial Reporting for Decision Making	\$200	\$8,000	\$13,200
Patricia Bianconi	College of Natural Sciences	Chemistry 342: Inorganic Chemistry Laboratory	\$235	\$10,575	\$34,075
Daiheng Ni	College of Engineering	Civil & Environmental Engineering 520: Traffic Flow Theory	\$150	\$3,150	\$6,000
Nicholas Reich	School of Public Health and Health Sciences	Public Health 697: Introduction to Statistical Computing and Data Visualization	\$130	\$3,900	\$2,730
Barbara Roche	College of Social and Behavioral Sciences	Journalism 397E: Entrepreneurial Journalism	\$100	\$1,500	\$1,900
Patricia Gorman	Honors College	Honors 390W: Irish Writers and Cultural Contexts	\$65	\$1,625	\$2,145



### **Professor Hossein Pishro-Nik**

**Course:** Electrical and Computer Engineering 314: Introduction to Probability and Random Processes

Cost of Regular Textbook: \$143

**Proposed Cost Savings**: \$14,630

**Created**: Introduction to Probability

Semesters Taught: 8 as of Spring 2014

**Total Enrollment**: 468

Total Savings: \$43,329+ as it has been used in other courses as well

# **Student Advocacy**

- Students spend an average of \$1,200 on textbooks and supplies a year.
- This is 79.8% of a student's summer earnings if working full-time at Massachusetts minimum wage
- 65% of students surveyed have decided not to buy a textbook due to its cost.



### Partners Providing OEI Support

Peer-Review by: CTFD IT Program faculty Librarians OIT

### **Faculty Award Letter**

Hi John Q. Professor,

Congratulations! I am very pleased to let you know that you have been selected as one of the winners of an OEI grant for your proposal NANO-SCI 999RL, NCR 999RL. Your official congratulations letter from the Provost and Director of Libraries with more details will be coming through the mail in a couple of weeks.

If you'd like to get started with your course preparation during intersession, I encourage you to be in touch with your librarian liaisons, Naka Ishii or Maxine Schmidt, Mei Shih in the Center for Teaching and Faculty Development, Matt Sheridan in the Scholarly Communication Office, or one of the rest of the team copied on this email.

Thank you for your interest in this new initiative,

Center for
TEACHING & FACULTY DEVELOPMENT



Consultation

with partners

prior to award



**Liaison Assignment** 

# **UMass Amherst** Libraries

Mass Amherst Libraries » Subject Research Guides » Open Educational Resources

Open Educational Resources Tags: website

Last Updated: May 21, 2014 URL: http://guides.library.umass.edu/oer Aprint Guide RSS Updates

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### What are Open Educational Resources (OER)?

Open Educational Resources are educational materials and resources offered freely and openly for anyone to use and under some licenses to re-mix, improve and redistribute. They include:



# The Textbook Problem @ NCSU From Caring to Responding to Leading











## Revised View from the Library

- Libraries increase learning technologies and curriculum support role
- Education, outreach, and expertise
  - Advocacy Libraries' developed expertise; offer consultations
  - Site on Alternative Models Aim was to educate, and possibly persuade
  - White paper on alternative textbooks

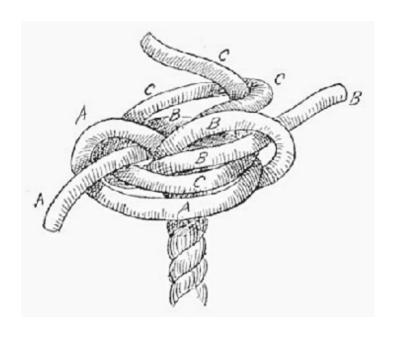


Resource for faculty seeking alternatives



### Course Books Efforts

- Libraries' policy is to purchase one copy of every required textbook.
  - % of titles circulating up each semester – word of mouth
  - Partnership with bookstore
- Helped, but not changing the fundamental system.







# Starting to Lead

- Market alternatives
- Licensing/hosting Open Physics text
- Hosting faculty-authored content
- PoD Bookstore/Espresso Machine
- New market models FlatWorld and OpenStax

Changing the market and the model through incentives









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Alt-Textbook Project

Call for Proposals

Faculty Guide to OERs

### Alt-Textbook Project

The NCSU Libraries invites faculty members to apply for a competitive grant to adopt, adapt, or create free or low-cost alternatives to expensive textbooks in the classroom for the Spring 2015 and Fall 2015 semesters.

### How to Apply

All current faculty members of NC State University teaching courses in Spring or Fall 2015 are eligible to apply. Please see the Call for Proposals for application instructions. All applications are due on October 20, 2014.

### Information Sessions

Interested faculty are highly encouraged to attend an upcoming information session to learn more about the project:

September 5, 2014, 10-11:30am, Office of Faculty Development conference room (405 Clark Hall). Register Here

September 10, 2014, 10-11:30am, D.H. Hill Library Assembly Room, 2nd floor East Wing. Register Here

### Open Textbooks and NCSU Libraries

#### IMPORTANT DATES

September 5, 2014: Information Session for Faculty

September 10, 2014: Information Session for Faculty

October 20, 2014: All proposals for Spring 2015 and Fall 2015 Due

November 15, 2014: Grants Announced









# Open Educational Resources

















# The Impact of Open Textbooks on Secondary Science Learning Outcomes

T. Jared Robinson<sup>1</sup>, Lane Fischer<sup>1</sup>, David Wiley<sup>1</sup>, and John Hilton III<sup>1</sup>

Given the increasing costs associated with commercial textbooks and decreasing financial support of public schools, it is important to better understand the impacts of open educational resources on student outcomes. The purpose of this quantitative study is to analyze whether the adoption of open science textbooks significantly affects science learning outcomes for secondary students in earth systems, chemistry, and physics.

This study uses a quantitative quasi-experimental design with propensity score matched groups and multiple regression to examine whether student learning was influenced by the adoption of open textbooks instead of traditional publisher-produced textbooks. Students who used open textbooks scored .65 points higher on end-of-year state standardized science tests than students using traditional textbooks when controlling for the effects of 10 student and teacher covariates. Further analysis revealed statistic viv significant positive gains for students using the open chemistry textbooks, with no

### "as or more effective" s for earth systems of physics courses. Although the effect size of the gains were

ounterparts has important considerations in terms of school district policy in a climate of finite educational funding.

**Keywords:** open educational resources; open textbooks; science education; secondary education; propensity score matching

### Introduction

For better or for worse, the textbook is the single most predominant curriculum delivery vehicle in schools in the United States

students learn. The William and Flora Hewlett Foundation, an early leader of the OER movement, defines open educational resources as "teaching, learning, and research resources that reside in the public domain or have been released under an intel-





### Our team



Brendan O'Connell Library Fellow Collection Management User Experience



Will Cross
Director
Copyright & Digital
Scholarship Center



Jason Casden Acting Associate Head Digital Library Initiatives



Kim Duckett Associate Head Research & Information Services



Greg Raschke Associate Director for Collections & Scholarly Communication



Sydney Thompson Associate Head Access & Delivery Services



### Internal Outreach & Promotion

# LIBRARIAN ROLE

### You can:

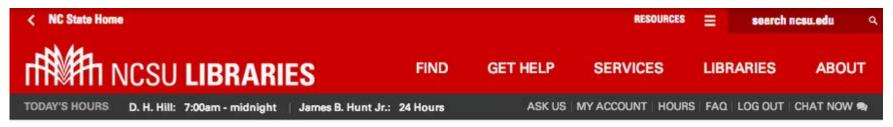
- Help us identify faculty applicants
- point faculty to tools
- connect them with librarians

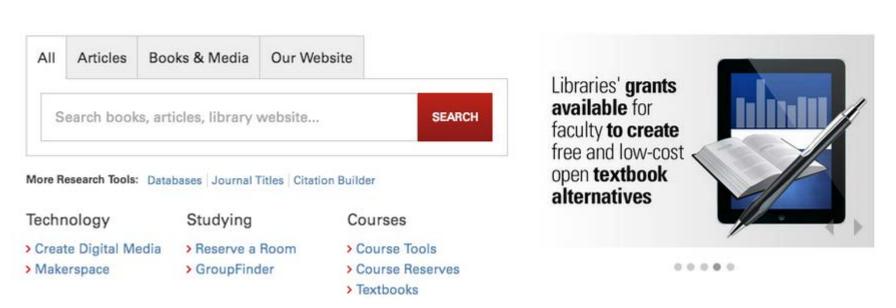
### You're not:

their TA



# Faculty Outreach & Promotion









### Peer Review Process

- Bring all stakeholders to the table:
- Students
- Faculty
- Campus partners
- Librarians



Peer Review, Flickr user ajc1





## Partnerships



NC STATE UNIVERSITY Office of Faculty Development













# Applications - Identifying the Problem

"Because data science is an emerging field, and because the topics span multiple disciplines, there was no single textbook we could adopt."

"Not only are the textbooks expensive, but the currency and configurability of the resources are limited by market-driven edition updates and copyright restrictions."

"I plan to use the library-compiled guide to Open Educational Resources to find appropriate chapters for many of the basic topics."





## Applications - Pedagogical Innovation

"The classic form of organic lab instruction is to provide students with a list of experiments. My students developed several videos highlighting individual useful techniques used in our labs. The creation of a "book" to house these videos and organize them in a logical way is the natural next step in this project.

"We propose to create prototype crowdsourced educational resource documents... that formalize the tools, processes, and products of academic crowdsourcing. Graduate students Think and Do to achieve the goals of digitally transformed education."





### Next Steps at NC State

- Awards
- Leverage librarians
- More funding!
- Assessment



NEXT, Flickr user functoruser



### Assessment

### **Methods Used**

- Surveys
- Qualitative interviews
- Enrollment numbers

### **Objectives**

- Was there a cost savings?
- Did students learn effectively?
- Did faculty implement the parameters of the grant?

Results can be used for improvement and marketing.

# Lessons Learned: What Worked

- ✓ Value of mini grants
- ✓ Meet faculty where they are
- ✓ Capitalize on your strengths
- ✓ Articulate value of existing library services



### **Best Practices**

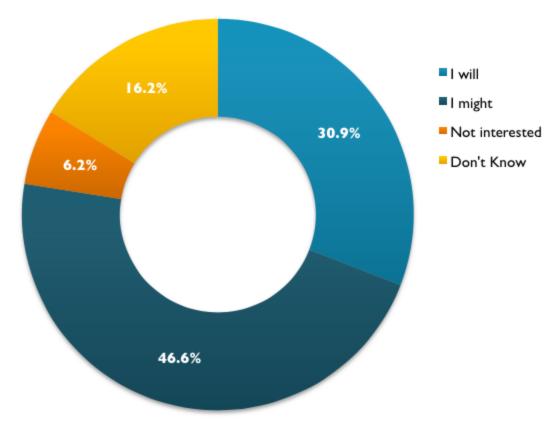
- Mix and match content from multiple sources to best suit your learning objectives
- For YouTube Videos use the Mashup tool
- Embed non-YouTube videos when possible
- For e-books with a detailed table of contents, provide web links to specific book sections
- Add short PDF documents as Files to open in the content frame
- Add long documents as Web Links and set to Open in New Window

# **Next Steps for Libraries**

- Assessment
- Sustaining progress over time
- Building a national Libraries & OER movement
- See you at OpenEd 14!

# Gather and leverage success stories for faculty discovering OERs

USE OPEN EDUCATIONAL RESOURCES IN THE NEXT THREE YEARS?



http://opencontent.org/blog/archives/3619

## **Your Questions**





## Thank You!





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Director of Copyright & Digital
Scholarship

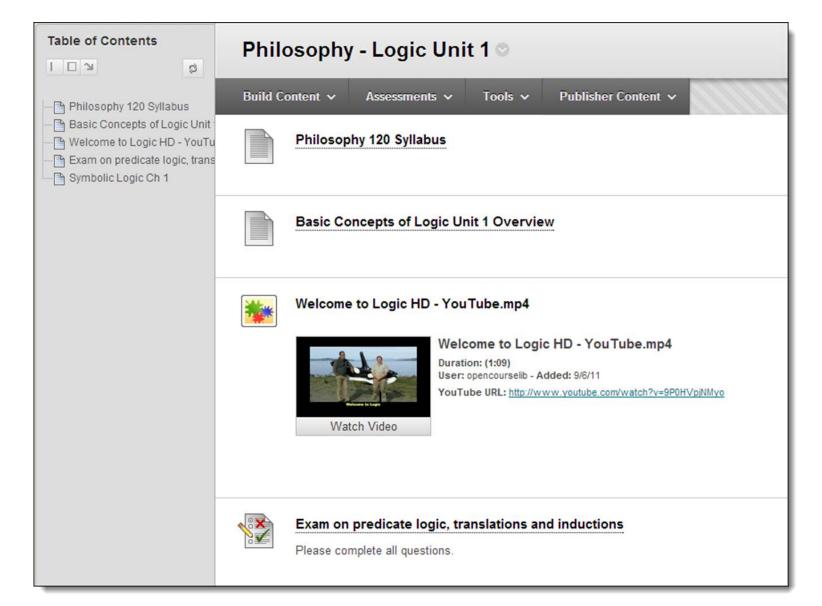
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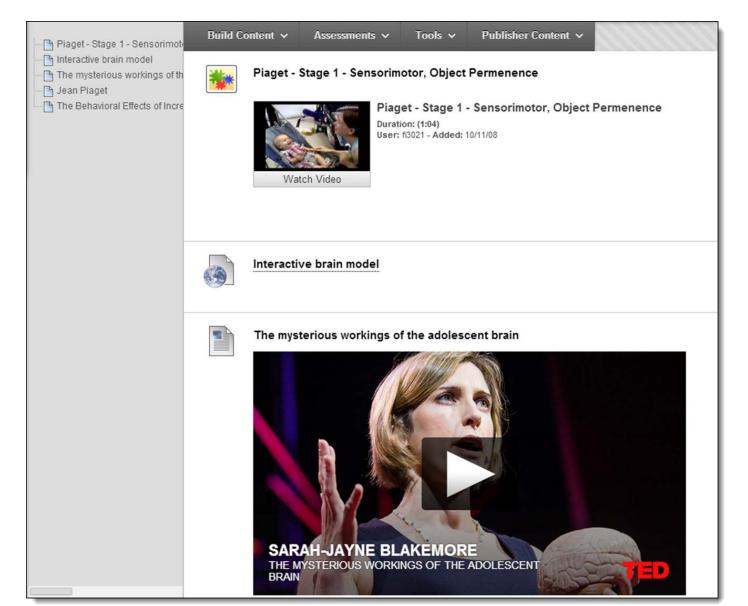


## **OER for Online instructors: Sample 1**



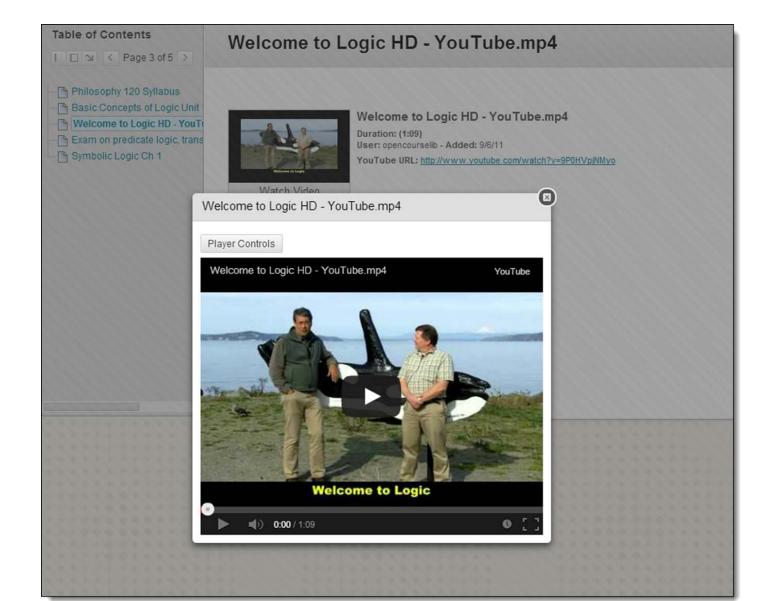


## OER for Online instructors: Sample 2



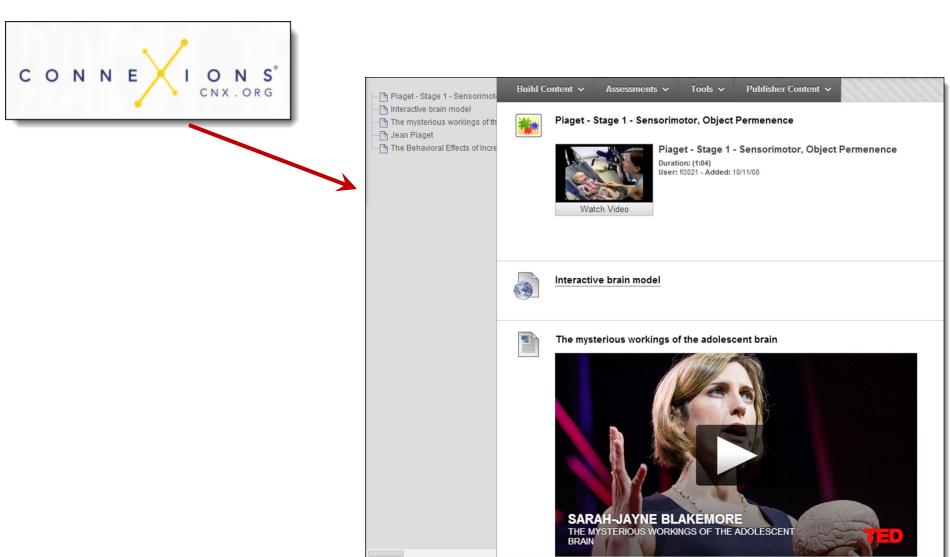


## For YouTube Videos use the Mashup tool



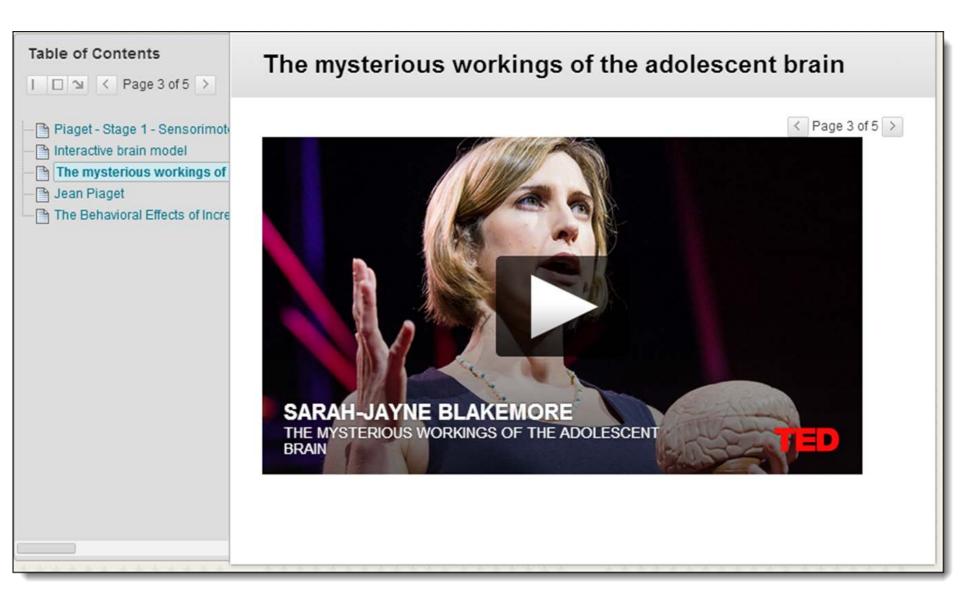


## Connexions: http://cnx.org





#### <Embed> non-YouTube videos





## Mix and match to meet teaching objectives



#### Philosophy (Bookshelf)

From Project Gutenberg, the first producer of free ebooks.

Philosophy is the discipline concerned with questions of importance to us which we cannot ansethics), what sorts of things exist and what are their essential natures (metaphysics), what counts principles of reasoning (logic). The word itself is of Ancient Greek origin: φιλοσοφία (philosophia)

Philosophical works in Project Gutenberg's catalog are listed below in roughly chronological ord

#### Contents [hide]

- 1 General introductions
- 2 History of philosophy
- 3 The meaning of life
- 4 Metaphysics (the nature of reality)
- 5 Epistemology (theory of knowledge) and philosophy of science
- 6 Philosophy of mind and language
- 7 Logic and reasoning
- 8 Aesthetics and philosophy of art
- 9 Ethics and moral philosophy
- 10 Political philosophy
- 11 Philosophy of education
- 12 Philosophy of religion
- 13 Philosophy of history
- 14 Non-western philosophical traditions
- 15 Lives and work of individual philosophers

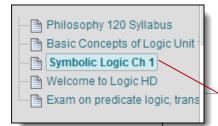


# Many eBooks have detailed Table of Contents

CHAPTER	
<u>CHAPTER I.</u>	
<u>PROPOSITIONS GENERALLY.</u>	
§ 1.	
Introductory.	
Technical meaning of "some"	8
'Proposition'	<u>"</u> 9
'Normal form' of a Proposition	<u>"</u>
'Subject', 'Predicate', and 'Terms'	<u>9</u>
5.2	
§ 2.  Normal form of a Proposition.	
Its four parts:—	
(1) 'Sign of Quantity'	n
(2) Name of Subject	n e
(3) 'Copula'	" " " "
(4) Name of Predicate	<u>"</u>
<u>§ 3.</u>	
<u>Various kinds of Propositions.</u>	
Three kinds of Propositions:—	10
(1) Begins with "Some". Called a 'Particular' Proposition: also a Proposition 'in I'  (2) Begins with "No". Called a 'Universal Negative' Proposition: also a Proposition 'in E'	<u>10</u>
(3) Begins with "All". Called a 'Universal Affirmative' Proposition: also a Proposition 'in A'	<u>"</u>
A Proposition, whose Subject is an Individual, is to be regarded as Universal	" pg_xviii
Two kinds of Propositions, 'Propositions of Existence', and 'Propositions of Relation'	" pg_xviii "
Two kinds of Propositions. Propositions of Existence , and Propositions of rectation	_
CHAPTER II.	
PROPOSITIONS OF EXISTENCE.	
*Proposition of Existence *	11



#### Provide Web Link to specific book section



#### CHAPTER I.

#### PROPOSITIONS GENERALLY.

§ 1.
Introductory.

Note that the word "some" is to be regarded, henceforward, as meaning "one or more."

The word 'Proposition,' as used in ordinary conversation, may be applied to any word, or phrase, which conveys any information whatever.

[Thus the words "yes" and "no" are Propositions in the ordinary sense of the word; and so are the phrases "you owe me five farthings" and "I don't!"

Such words as "oh!" or "never!", and such phrases as "fetch me that book!" "which book do you mean?" do not seem, at first sight, to convey any *information*; but they can easily be turned into equivalent forms which do so, viz. "I am surprised," "I will never consent to it," "I order you to fetch me that book," "I want to know which book you mean."]

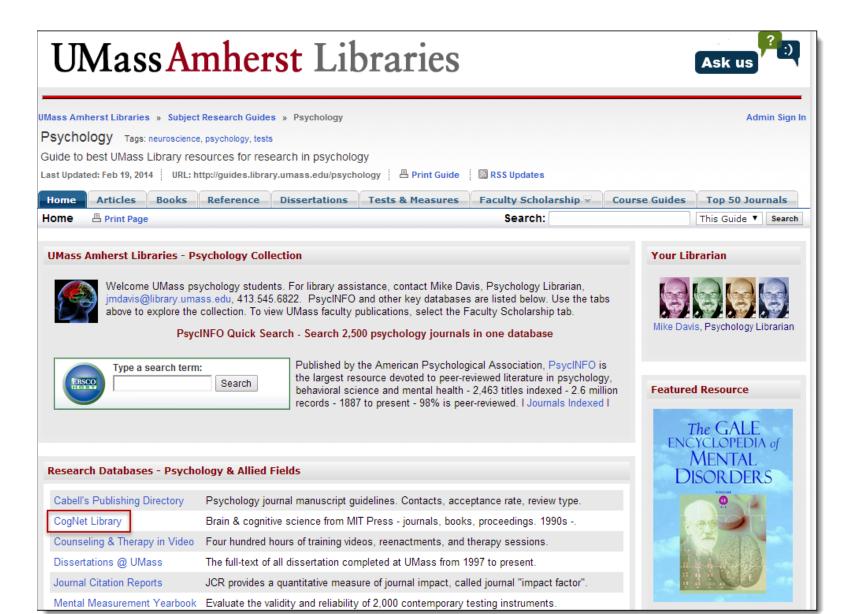
But a 'Proposition,' as used in this First Part of "Symbolic Logic," has a peculiar form, which may be called its 'Normal form'; and if any Proposition, which we wish to use in an argument, is not in normal form, we must reduce it to such a form, before we can use it.

A 'Proposition,' when in normal form, asserts, as to certain two Classes, which are called its 'Subject' and 'Predicate,' either

- (1) that some Members of its Subject are Members of its Predicate;
- or (2) that no Members of its Subject are Members of its Predicate;
- or (3) that all Members of its Subject are Members of its Predicate.

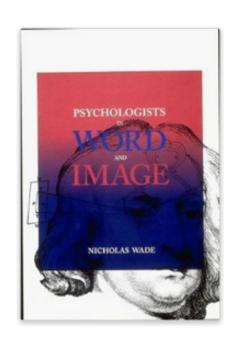


#### Use institution databases when available









## Psychologists in Word and Image (Bradford Books) Paperback

by Nicholas Wade (Author)

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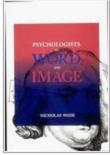
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	Amazon Price	New from	Used from	Collectible from
Hardcover	_	\$45.00	\$22.00	_
Paperback	_	\$75.18	\$2.03	_

We are all fascinated by physiognomy, intrigued by the appearance of the people we admire. These perceptual portraits of more than 100 thinkers who have fashioned our understanding of mind and behavior provide an alternative view of the history of psychology that is both pleasing and puzzling.

▼ Read more

#### Selected Title Details



Mar 1995 ISBN 0262731126 256 pp. 104 illus.

#### BUYTHE BOOK

#### Psychologists in Word and Image

#### Nicholas Wade

We are all fascinated by physiognomy, intrigued by the appearance of the people we admire. These perceptual portraits of more than 100 thinkers who have fashioned our understanding of mind and behavior provide an alternative view of the history of psychology that is both pleasing and puzzling.

Francis Bacon, René Descartes, Pierre Broca, Sigmund Freud, Carl Jung, Ruth Benedict, Allen Newell, David Marr and scores of others whose ideas have made psychology an empirical discipline emerge from motifs specifically drawn by the author or derived from a figure or text in one of the portrayed person's books, or an apparatus he or she invented. The ingenious treatment of portrait/motifs often challenges the viewer to discern the faces embedded in them and always tells us more than how these students of mind looked: these portraits reflect their thoughts and lead us to forage further into their lives and legacies.

The portraits and motifs have been manipulated in a variety of ways, using graphic and photographic procedures. They are arranged in order of birth date in a format of one page of descriptive text facing a full-page perceptual portrait. The text presents a brief synopsis of the person portrayed, that person's ideas, and the source of both the portrait and the motif. Interrelations between people are stressed, bringing to light common threads that run through the work of particular groups and adding yet another level to this unique gallery of psychology's pioneers.

#### Table of Contents

Preface Introduction

- 1 Francis Bacon: Inductive Scientist
- 2 nmas Homes: Levichan

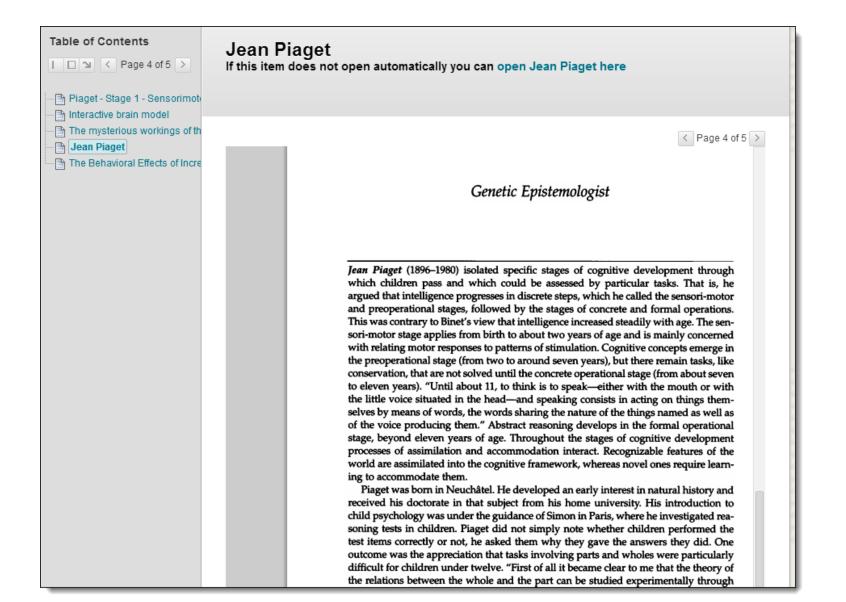
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- 8) s Leo arston chom an
- 82 Ruth Fulton Benedict: The Chrysanthemum and the Sword
- 83 Ronald Aylmer Fisher: Significant Figure
- 84 Karl Spencer Lashley: Lashley's Jumping Stand
- 85 Kurt Lewin: Good Gestalt IV
- 86 Wilder Graves Penfield: Cortical Cartographer
- 87 Jean Piaget: Genetic Epistemologist
- 88 Lev Semionovich Vygotsky. Vygotsky's Blocks
- 89 Gordon Willard Allport: Por-trait
- 90 Alexander Romanovich Luria: Neuropsychologist
- 91 Carl Ransom Rogers: Nondirective Therapist
- 92 n Brun ik: Sch tic Fan



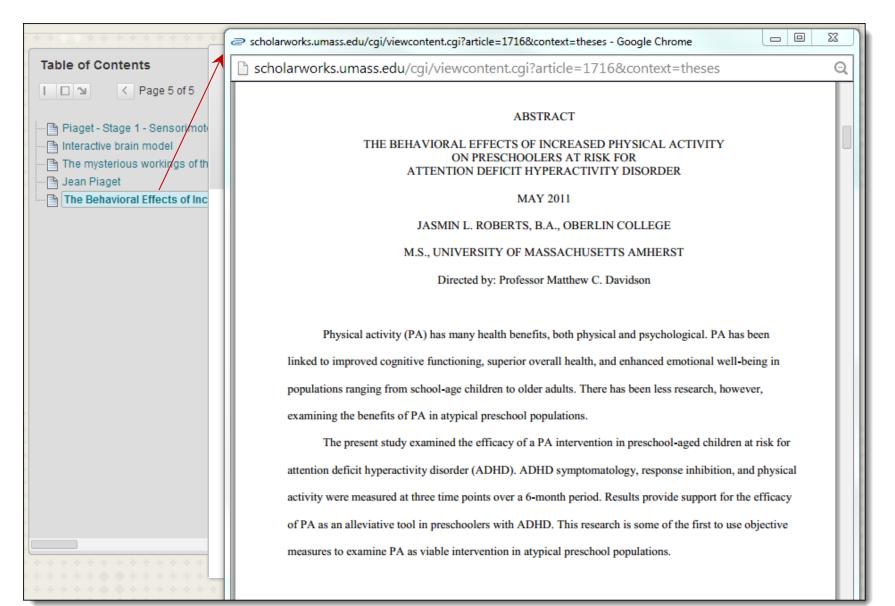


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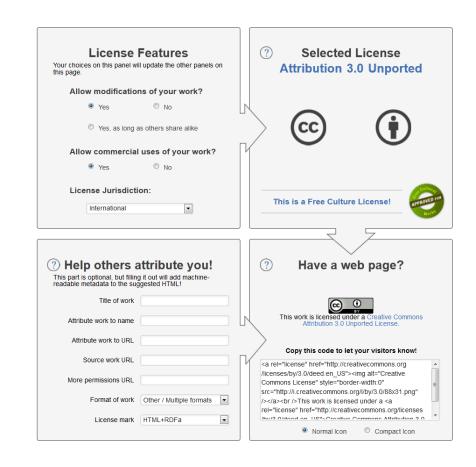
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- How do I protect my copyright on the works I create?
- 2. How do I make sure I'm not infringing on the copyright of others?



## How do I protect my copyright?

- How do you want your work to be used? What is it that you want out of this experience?
  - Do you want other educators to be able to use it?
  - Do you want to commercialize it?
  - Do you want attribution?



# How do I make sure I'm not infringing on copyright?

- Check the CC license to see how the creator would like something to be used.
- Exercise your fair use rights as academic educators and researchers.



http://copyright.columbia.edu/copyright/files/2009/10/fairusechecklist.pdf