

tions as well as of managers and professionals. The share of professionals today is about the same as that of farm laborers in 1870, implying a tremendous change in working conditions along all dimensions, including physical difficulty, exposure to the elements, risk of injury or death, and educational qualifications. The transition from unpleasant to pleasant work, from collar work, and domestic service to pleasant work in 1870 were unpleasant. In 1940, the percentage of the population in 1870 that had declined to only 21.6 percent.

Table 2-3. Distribution of Occupations, 1870, 1940, and 2009

	1870	1940	2009
Farmers and Farm Laborers	36.5	11.7	1.1
Farmers	26.5	11.7	0.5
Farm Laborers	10.0	0.0	0.6
Operating Occupations	12.6	28.1	35.2
Service Occupations	12.6	28.1	41.4
Clerical Workers	1.1	10.4	12.1
Sales Workers	2.3	6.2	11.6
Domestic Service Workers	7.8	4.4	0.6
Other Service Workers	1.4	7.1	17.1
Managers, Professionals, and Proprietors	8.0	15.1	37.6
Managers and Officials	1.6	5.7	14.4
Professionals	3.0	7.1	20.5
Proprietors	3.4	4.3	2.7
Total*	100.1	99.2	100.0

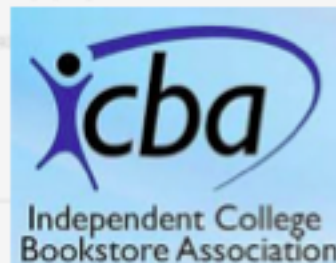
Sources: 1870 and 1940: HRS Series Ba1033-Ba1046

2009: Statistical Abstract of the United States: 2011, Table 605 for self-employed plus Table 413 for employees.

Note: a. The 1870 total is greater than 100 due to rounding. The 1940 total is greater than 100 due to rounding. The 1940 total is greater than 100 due to rounding. The 1940 total is greater than 100 due to rounding.

Kenneth C. Green
The Campus Computing Survey

22 February 2016

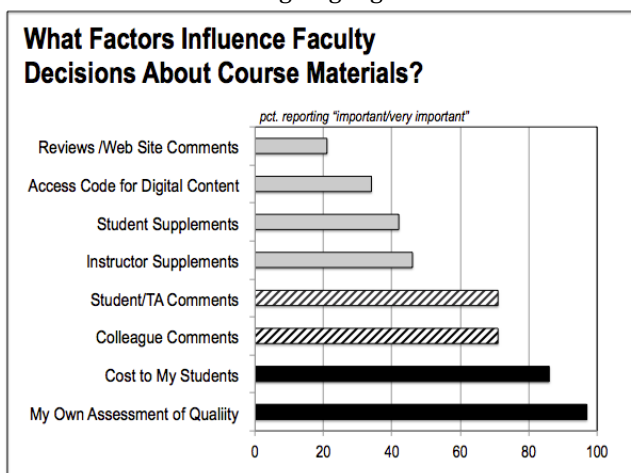




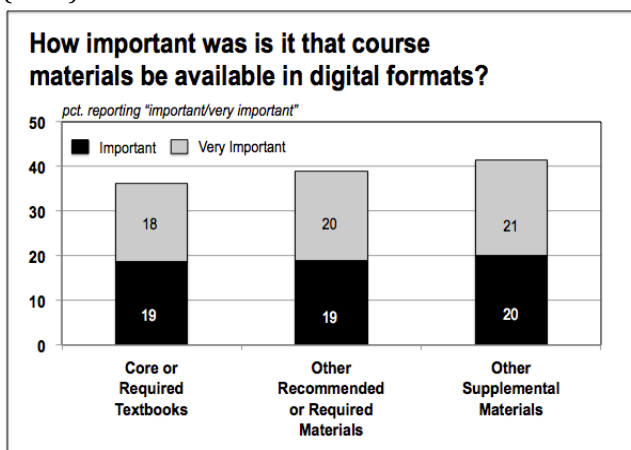
GOING DIGITAL

Faculty Perspectives on Digital and OER Course Materials

Quality and the cost of course materials for students emerge as the key factors that drive the decisions of college faculty about textbooks and other course materials. And although the movement to digital course content seems inevitable and a majority of the surveyed faculty express interest in adaptive technologies for their courses, it is also clear that college and university faculty have real concerns about some of the proclaimed instructional benefits of going digital.



These are the key findings from a fall 2015/winter 2016 survey of 2,902 college and university faculty at 29 two- and four-year colleges and universities sponsored by the Independent College Bookstore Association (ICBA).



Not surprisingly, faculty identified their own assessment of quality as the top issue in their selection of course materials (97 percent reporting as important/very important). Ranked second was the cost of course materials for students (86 percent), followed by the comments of students or teaching assistants and also

comments from colleagues (tied at 71 percent). In contrast, just over two-fifths of the survey participants indicated student or instructor supplements were important/very important in their decisions about course materials, and only a fifth said comments and reviews on public web sites had a major impact on their decisions about course materials.

The survey data reveal that “being digital,” in and of itself, is not a key factor in faculty decisions about course materials. Less than two-fifths of the survey participants indicated that digital formats were important or very important for core texts or other required course materials.

Four-fifths (78 percent) of the survey participants acknowledged that “digital course materials generally cost less” for their students.” Yet perhaps more important for digital advocates, college publishers, and for other digital content providers was that *less than half* of the surveyed faculty agreed/strongly agreed that:

- digital course materials provide significant added value content not available in print (45 percent);
- students prefer digital course materials over print (44 percent);
- they would be more likely to use digital curricular resources if they offered analytics and reports on class performance (44 percent);
- digital course materials provide for a richer and more effective learning experience than print (35 percent);
- digital course materials have a beneficial impact on student learning compared to print (27 percent); and
- digital course materials are higher quality than similar print materials (19 percent).

Digital Course Materials	% Agree/Strongly Agree
generally cost less for my students	79
include significant added-value content not available in print	45
are as easy for me to use as similar print materials.	41
provide for richer and more effective learning experience than print	35
have a beneficial impact on student learning compared to print.	27
are higher quality than similar print materials	19

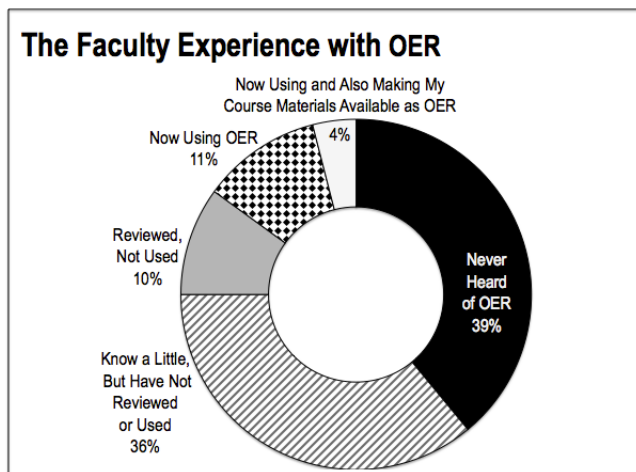
While the movement in course materials in colleges and universities is clearly from print towards digital, the survey data suggest it will be a slow process. Asked

when they thought the majority of their course materials would be primarily digital, fully a fourth of the surveyed faculty indicated “never,” while another 9 percent said by fall 2022, and 17 percent indicated by fall 2020. In contrast, fully a sixth (16 percent) reported that majority of their current course materials were digital as of fall 2015, and a third (34 percent) anticipated primarily digital course materials by fall 2018.

However, despite what appears to be faculty resistance to going digital for course materials, just over two-thirds (69 percent) of the survey participants agreed/strongly agreed that they have used or would like to use “curricular materials that make use of adaptive learning technologies.”

“While the transition from print to digital course materials may be inevitable, these new data make two things clear,” said Fred Weber, CEO of ICBA, the organization that sponsored the survey. “First is that the pace of change is much slower than anticipated by publishers, administrators, digital advocates, and campus IT professionals. And second, most faculty are not convinced that digital products have a positive impact on student learning outcomes.”

The survey also provides new data that reveal faculty perspectives on the emerging Open Educational Resource (OER) movement for free or low-cost course materials. Two-fifths (39 percent) of the survey participants indicated that they had never heard of OER, while just over a third (36 percent) indicated that they knew a little about OER but had not used or reviewed OER materials. A tenth (10 percent) had reviewed but decided not to use OER materials for their classes, while another tenth (11 percent) were using OER materials and 4 percent were currently using OER in their classes and also making their own course materials available as OER. Finally, only a third of the survey participants agree that, at present, OER content “provides a viable alternative to traditional print/ commercial course resources.”



Asked what might prompt them to adopt OER for their courses, quality (74 percent reporting important/very important) and cost (71 percent) were the top issues, just as they were for more traditional print or other digital course materials. Yet the option to

remix OER content without worrying about copyright issues or other restrictions was also attractive to many faculty (65 percent citing important/very important).

How Soon Before the Materials in Your Courses Will be Primarily Digital?	% Digital	% OER
NEVER	24	41
Now (Fall 2015)	16	5
Fall 2016	7	6
Fall 2018	27	21
Fall 2020	17	17
Fall 2022	9	10

And perhaps because most have had little exposure to or experience with OER, faculty expect the movement to primarily OER materials in their courses to be slower than the overall movement to digital. Fully two-fifths of the survey participants said their course materials would “never” be primarily digital (41 percent) compared to 24 percent responding “never” the migration to primarily digital course materials. And they view OER video and supplements are more useful than OER textbooks.

What Kinds of OER Materials Would Be Most Useful	% Agree/ Strongly Agree
Video (from YouTube, Kahn Academy, etc.)	62
Other supplemental course materials	53
Other required course materials	49
OER Textbooks as an alternative to commercial texts	47

“The survey data reveal a core conundrum regarding cost and access to digital course materials, and especially OER materials,” said Kenneth C. Green of The Campus Computing Project, who conducted the survey for ICBA. “Faculty overwhelmingly report that a major benefit of going digital is the lower cost of course materials. Yet many faculty, especially in community colleges, also report that their students don't own the tech platforms required access digital content. Consequently, many of the students who might benefit most from lower-cost digital and OER course materials are not able to do so.”

Finally, the survey data affirm the role of college bookstores as a trusted resource and distribution channel for course materials. Almost a three-fourths (72 percent) of the survey participants agree/strongly agree that “my campus bookstore is a trustworthy and objective source for information about course materials.” Concurrently, three-fifths (59 percent) report that their “campus bookstore can play an important role helping faculty select and effectively use digital curricular course materials” (59 percent).

Additional information about the ICBA Faculty Survey is available online:
www.campuscomputing.net/goingdigital2016

GOING DIGITAL

Faculty Perspectives on Digital and OER Course Materials

About the Campus Computing Project




Welcome to The Campus Computing Project

Begin in 1990, The Campus Computing Project™ is the largest continuing study of the role of information technology in American higher education. Our projects – the annual Campus Computing Survey, the national surveys of presidents, provosts, and other senior campus officials conducted in collaboration with Inside Higher Ed, and other research activities – draw on qualitative and quantitative data to ask and inform faculty, campus administrators, and others interested in critical planning and policy issues that affect American colleges and universities.

Explore The Campus Computing Project

NEW: The ERP Forum

Kenneth C. Green, Founding Director
The Campus Computing Project

What's New at Campus Computing

- 17 Oct 2013 The 2013 Campus Computing Survey
- 02 Aug 2013 Attention Must be Paid (AAUP Conference, J...)
- 01 May 2013 Innovation and Infrastructure (Sayer Forum...)
- 01 May 2013 Mission, MOOCs & Money (Trusteeship, J...)

INSIDE HIGHER ED digitaltweed

- Launched in 1990
- Largest continuing study of IT and eLearning in American higher education
- IT benchmarking data for colleges and universities
- Market data for technology firms and other providers

Survey Goals • Key Questions

- What are the key factors that affect the choice of textbooks and other course materials?
- Does it matter if course materials are in print or digital formats?
- Are digital materials better than print, easier to use, and less expensive?
- Do digital course materials provide significant added-value over print course materials?
- Do faculty believe that digital course materials have a beneficial impact on student learning?
- What do faculty know about OER? Why might faculty select OER for their courses?
- How long before most course materials are digital?
- What's the role of the college bookstore in the transition to digital course content?

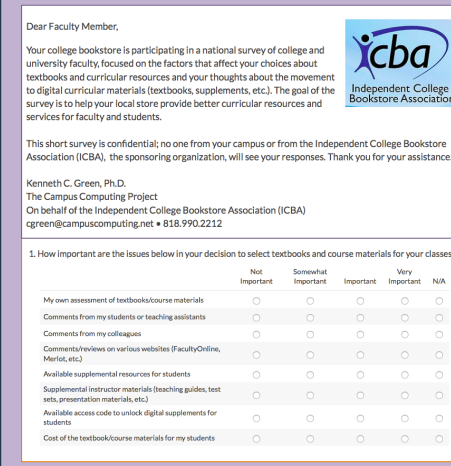


GOING DIGITAL

Faculty Perspectives on Digital and OER Course Materials

Methodology

- 2,902 completed surveys from faculty at 29 two- and four- year colleges and universities
- Email invitation to faculty from their local college bookstore
- Survey period: Nov 2015 – Jan 2016



Dear Faculty Member,

Your college bookstore is participating in a national survey of college and university faculty, focused on the factors that affect your choices about textbooks and curricular resources and your thoughts about the movement to digital curricular materials (textbooks, supplements, etc.). The goal of the survey is to help your local store provide better curricular resources and services for faculty and students.

This short survey is confidential; no one from your campus or from the Independent College Bookstore Association (ICBA), the sponsoring organization, will see your responses. Thank you for your assistance.

Kenneth C. Green, Ph.D.
The Campus Computing Project
On behalf of the Independent College Bookstore Association (ICBA)
kgreen@campuscomputing.net • 818.990.2212

1. How important are the issues below in your decision to select textbooks and course materials for your classes?

	Not Important	Somewhat Important	Important	Very Important	N/A
My own assessment of textbooks/course materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments from my students or teaching assistants	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments from my colleagues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments/reviews on various websites (FacultyOnline, Merlot, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Available supplemental resources for students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplemental instructor materials (teaching guides, test sets, presentation materials, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Available access code to unlock digital supplements for students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cost of the textbook/course materials for my students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5

The Survey Population

2,902 completed surveys;
1,951 comments (67% of participants)

Gender	%
Female	53
Male	47

Employment Status	%
Full-Time	81
Part-Time	19

Age	%
Under 35	11
35-44	23
45-54	25
55-64	31
Over 65	10

Respondents by Campus Type	%
University (15 institutions)	60
BA/MA Institution (9 institutions)	31
Community College (5 institutions)	9

Field / Discipline	%
STEM (science, math, engineering)	23
Humanities	20
Social Science	19
Business / Mgmt.	9
Education	8
Health Care	7
Visual/Performing Arts	5
Vocational Fields	1
Other Fields	8

6



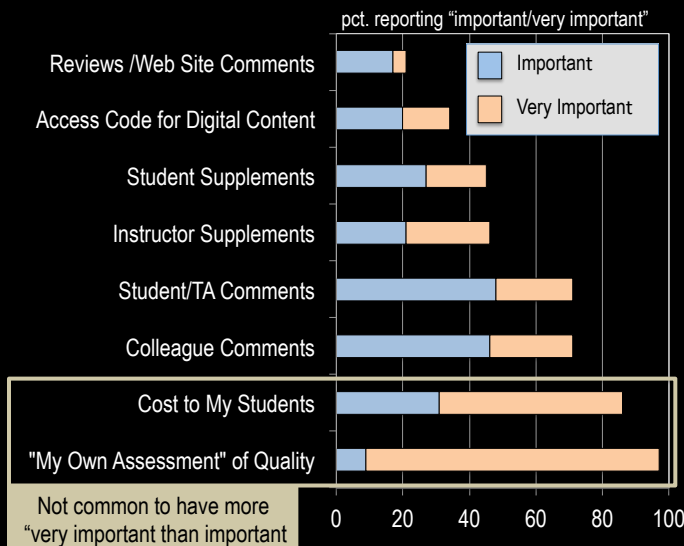
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Faculty Perspectives on Digital and OER Course Materials

Key Findings

- Quality and cost to students are the key drivers of faculty decisions about course materials.
- Lower cost is cited as the major benefit of digital materials.
- Faculty do not view “being digital” as essential.
- Over a fourth (27%) of survey participants report their students do not have easy access to tech resources that would allow them to make full use of digital content.
- Survey participants are skeptical about the “added-value” and instructional impact of digital content.
- Few faculty have direct experience with OER.
- College bookstores are trusted resource partners and distribution channels for all types of course materials.

What Factors Influence Faculty Decisions About Course Materials?



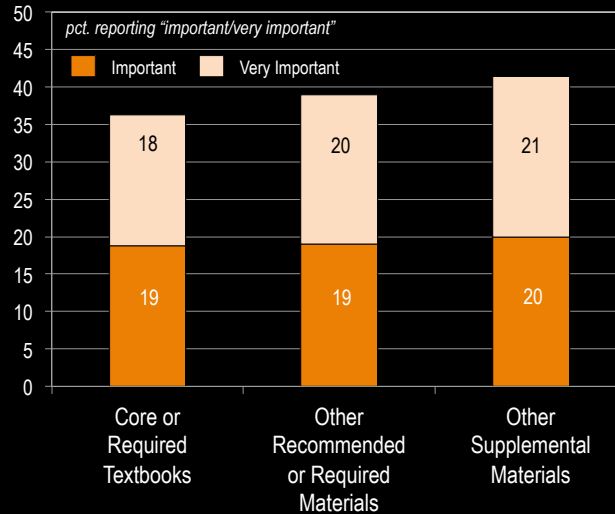
- Quality and cost are the key decision factors
- Majority report that student and faculty course supplements are not important



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Faculty Perspectives on Digital and OER Course Materials

As you think about course materials for your fall 2015 classes, how important was it that course materials be available in digital formats?



- Digital formats do not drive decisions about core course materials
- Digital formats slightly more important for supplements over core texts.

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Faculty Perspectives on Digital Course Materials

Digital Course Materials	% Agree/Strongly Agree
should be significantly less expensive than print	87 (43/47)
generally cost less for my students	79 (62/17)
are preferred by my students over print	44 (38/6)

- Major benefit of digital appears to be lower cost for students

- 55% would assign digital materials if the price were at least 40% less than similar print materials

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Faculty Perspectives on Digital and OER Course Materials

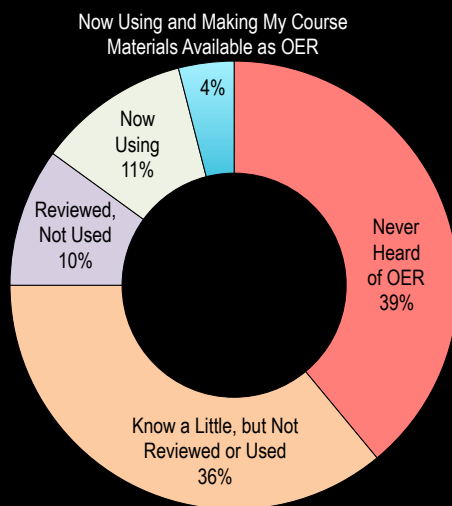
Faculty Perspectives on Digital Course Materials

Digital Course Materials	% Agree/ Strongly Agree
include significant added-value content not available in print	45 (40/5)
are as easy for me to use as similar print materials.	41 (32/9)
provide for richer and more effective learning experience than print	35 (30/5)
have a beneficial impact on student learning compared to print.	27 (24/4)
are higher quality than similar print materials	19 (17/2)

- Faculty are not convinced that digital offers higher quality, provides real added-value content, or improves learning outcomes

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The Faculty Experience with Open Educational Resources (OER)



- Three-fourths (75%) have had no direct "contact" with OER content
- Just 15% have experience – *are now using* – OER resources in their courses

Only a third (36%) agree OER content provides a viable alternative to traditional print /commercial course resources.

Going Digital 2016

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Faculty Perspectives on Digital and OER Course Materials

What Kinds of OER Materials Would Be Most Useful to You?

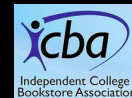


	% Useful/ Very Useful	% N/A
Video (from YouTube, Khan Academy, etc.)	62 (27/35)	12
Other supplemental course materials	53 (31/22)	17
Other required course materials	49 (29/20)	19
OER Textbooks as an alternative to commercial texts	47 (25/22)	18

- Faculty interest in OER focuses more on video and supplements than core texts and required course materials

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Why Might You Decide to Select OER Materials for Your Classes?



	% Important/ Very Important	% N/A
High quality of OER materials	74	16
Low cost of OER for My Students	71	12
Option to remix OER materials	65	13
OER materials are easy to find online	57	19
OER materials are generally digital	52	18
Recommendation of colleagues	47	14
Bookstore support for OER	42	14
Web site comments/reviews	19	15

- Quality, cost, and control are the top reasons faculty might select OER for their courses.

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Faculty Perspectives on Digital and OER Course Materials

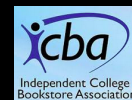
How Soon Before the Materials in Your Courses Will be Primarily Digital?



	% Digital	% OER
Now (Fall 2015)	16	5
Fall 2016	7	6
Fall 2018	27	21
Fall 2020	17	17
Fall 2022	9	10
NEVER	24	41

- Inflection point for digital – 50% – may arrive in fall 2018.
- Significant minority do not see a future for primarily digital content or OER in their courses

Bookstores are a Trusted Resource and Distribution Channel



	% Agree/ Strongly Agree
My campus bookstore is a trustworthy and objective source for information about course materials.	72 (55/17)
My campus bookstore can play an important role helping faculty select and effectively use digital curricular course materials.	59 (48/11)
My campus bookstore should offer the option of digital course materials whenever they are available.	89 (64/25)
BUT NO PROTECTED STATUS FOR THE COLLEGE BOOKSTORE Regardless of the format (print, digital, OER, etc.), college stores should be the primary distribution channel for textbooks and course materials.	44 (35/10)

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Faculty Perspectives on Digital and OER Course Materials

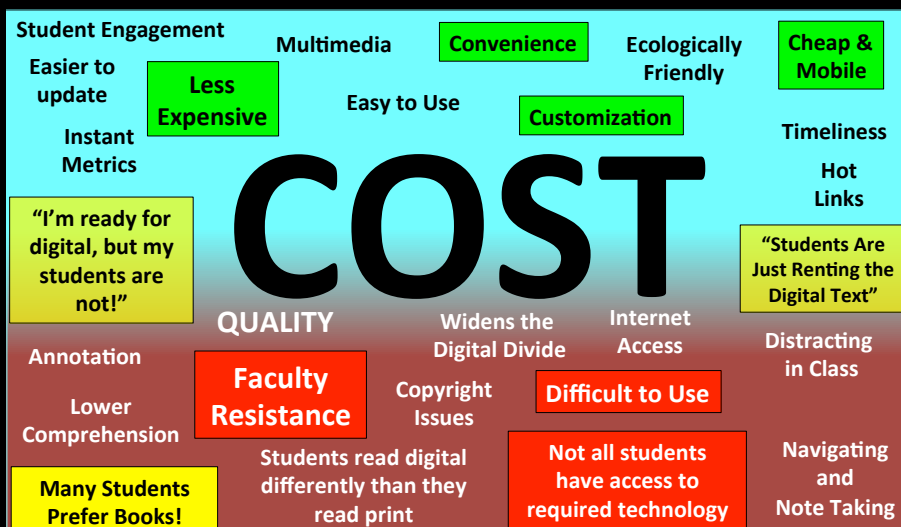
Related Issues

	% Agree/ Strongly Agree
I would like to use curricular resources that make use of adaptive learning technologies	69 (55/14)
I would be more likely to use digital curricular resources if they offered analytics and reports on class performance	44 (35/9)
The representatives of college publishers do a good job of informing college faculty about curricular innovations in their fields.	37 (34/3)

- Faculty more interested in adaptive learning than analytics
- Publisher reps are not effective at disseminating information about innovation

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What are the major benefits of or challenges to the effective use of digital course materials?



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Faculty Perspectives on Digital and OER Course Materials

Major Differences by Sector

Universities

- Higher levels of student ownership of computers and digital platforms
- Least interested in reviews on the web
- More skeptical about the benefits of digital
- Lowest levels of familiarity with OER
- Least favorable opinion of reps as a resource for information about innovation

BA-MA Institutions

- *Truly the "middle child"*
– often in between the numbers for universities and community colleges

Community Colleges

- Many students do not own computers or have access to tech platforms for doing digital
- Somewhat more positive about the benefits of digital than their peers in other segments
- Very interested in video course supplements
- More favorable opinion of reps as a resource for information about innovation

Surprises in the Data

- Faculty are skeptical about the added value and instructional benefits of digital content.
- Very high interest in adaptive learning (68%).
- Low ratings for the value of published reviews of course materials.
- No consistent pattern of major differences by age.
- College stores are viewed as a trustworthy source for information about course materials.



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Faculty Perspectives on Digital and OER Course Materials

The Cost vs. Access Conundrum

- Faculty overwhelming report that a major benefit of digital and OER is the lower cost of course materials.
- Faculty also report that many of their students do not own the enabling tech platforms to go digital (highest in community colleges)

IMPACT

- The students who might experience the greatest financial benefits from going digital cannot do so.

Compare and Contrast

ICBA Faculty Survey		Other Sources	
44%	My students prefer digital over print	50%	Faculty: Students prefer print over digital (2015 BSIG Survey)
28%	Digital has a beneficial impact on student learning compared to print	91%	Faculty: Digital media in lectures improves learning outcomes (VideoBlocks Survey)
35%	Digital provides for a richer and more effective learning experience than print	86%	CIOs: Digital curricular resources make learning more efficient and effective (2015 Campus Computing Survey)
68%	I would like to use curricular materials that make use of adaptive technology	96%	CIOs: Adaptive learning technology makes learning more efficient and effective (2015 Campus Computing Survey)
86%	Cost is an important issue in the selection of course materials	2%	Faculty: Cost is a top issue in their selection of course materials (OER in ND and The Nation 2015 • Babson Survey Group)
36%	• OER materials in my field provide a viable alternative to print resources.	94%	CIOs: OER textbooks will be an important source for instructional resources in five years (2015 Campus Computing Survey)
49%	• Expect their course materials to be primarily OER in 5 years		

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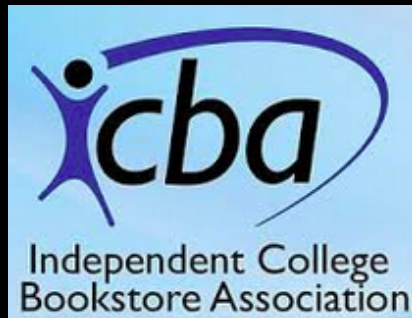


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Faculty Perspectives on Digital and OER Course Materials

Going Forward

- Quality and cost will remain major concerns
- Publishers & other course content providers will have to manage expectations about:
 - how much money “going digital” will save students.
 - the added value and educational benefits of digital content.
- Clear need for compelling evidence about the educational benefits and learning outcomes of digital course materials.



Survey Materials Available at
campuscomputing.net/goingdigital2016



The Campus Computing Project

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