Digital Learning in Postsecondary Education: A Point of View from the Field



July 19, 2017

INVESTMENT BANKING + STRATEGY CONSULTING

Agenda

- 01 Overview of Tyton Partners and our Work
- 02 What We Learned in 2015 about Courseware
- 03 Introducing the Courseware in Context (CWiC) Framework
- 04 Where We Are Today (with Digital Learning & Courseware)
- 05 Implications for Your Institution
- 06 Q&A

01 Overview of Tyton Partners and our Work

Who Is Tyton Partners?

| Evolved Advisory | An evolved advisory platform serving clients across the global education, media and information markets |
|---------------------|--|
| Strategy Consulting | Strategy consulting built on a foundation of transactional experience and data-based market insight |
| Investment Banking | Investment banking services built on a foundation of strategy development and operating experience |
| Unique Insights | A dynamic firm that delivers insights, connectivity, and outcomes to a diverse range of companies, organizations and investors |

The Organizations We Serve...



...And the Types of Opportunities for which They Engage Us

Institutions



Strategy development supporting:

- Revenue diversification
 and growth
- New program development
- Public / private partnership

Initiative planning and execution in pursuit of:

- Teaching / learning innovation
- Student success
- Workforce alignment and outcomes
- Administrative / operational efficiency

Foundations



- Market assessment
 and development
- Theory of change enablement and network development
- Grant-making strategy development
- Grantee scaling technical assistance

Commercial Providers



- Growth strategy and development
- Product strategy and portfolio assessment
- Go-to-market strategy development
- Customer segmentation and prioritization
- Partnership strategy and execution

Investors



- Market segment evaluation
- Investment thesis evaluation
- Due diligence and acquisition support
- Post-close 90-day strategy audit



A Brief Narrative Prelude...

THE IRON TRIANGLE:

College Presidents Talk about Costs, Access, and Quality

October 2008

A Report from

The National Center for Public Policy and Higher Education

and Public Agenda





Our Strand of Work Contributing to the Broader Discourse

| 2014 | 2015 | 2016 | 2017 |
|---|---|--|--|
| Digital courseware survey of 2,700 faculty and admins | Publication of <i>Time for</i> <i>Class 2015</i> series, re- vealing high awareness of courseware, but low levels of satisfaction, high barriers to adoption, and confusion around products Kick-off of Courseware in Context (CWiC) project with OLC, and SRI Inter- national. Goal of bringing courseware definition to market and developing resource to improve market understanding | Release of CWiC Framework in Oct 2016, kickoff of inaugural Executive Committee term Administration of survey of 3,500 faculty and administrators regarding digital learning implementa- tion | Release of <i>Time for Class</i> 2017 Development of interactive version of CWiC Framework to improve usability |

Objectives for Today

- Highlight selected insights and catalysts from foundational 2015 analysis
- Introduce the CWiC Framework as a decision-support resource
- Share digital learning current 2017 state and institutional implications
- Continue and extend the conversations started this week

02 What We Learned in 2015 about Courseware

Building a Foundational Understanding of the Issues

- Three key objectives vis-à-vis digital courseware in US postsecondary education:
 - Determine the level of adoption within US postsecondary education
 - Collect practitioner perspectives on courseware use and barriers to further adoption
 - Evaluate the state of the supply-side ecosystem
- Need to establish a key definition in an emerging landscape "digital courseware" is curriculum delivered through purpose-built software to support teaching and learning.
- Conducted national survey in Summer 2014 secured more than 2,700 responses from teaching faculty and administrators
- Released initial three-part "Time for Class" series in 2015

Responses Revealed Higher than Expected Faculty Awareness and Use of Courseware in Intro-Level Courses...



...With Courseware Penetration Varying by Academic Discipline



Faculty and Administrators Agreed that Courseware Use Would Grow Going Forward

How do you expect your use of digital courseware to change over the next three years?



% of respondents stating that use will increase "more" or "much more"

However, Articulated Adoption Barriers Threatened to Inhibit or Slow Growth of Courseware Use...

TOP BARRIERS TO ADOPTION OF COURSEWARE BY INSTITUTION TYPE

| PRIVATE 4-YEAR | PUBLIC 4-YEAR | PUBLIC 2-YEAR |
|---|---|---|
| ADDITIONAL TIME REQUIRED FOR FACULTY | ADDITIONAL TIME REQUIRED FOR FACULTY | ADDITIONAL COST TO STUDENTS |
| EFFICACY OF DIGITAL COURSEWARE IN IMPROVING LEARNING OUTCOMES | EFFICACY OF DIGITAL COURSEWARE IN IMPROVING LEARNING OUTCOMES | ADDITIONAL TIME REQUIRED FOR FACULTY |
| LACK OF ALIGNMENT WITH MY PHILOSOPHY OF INSTRUCTIONAL DESIGN | LACK OF ALIGNMENT WITH MY PHILOSOPHY OF INSTRUCTIONAL DESIGN | TECHNICAL INTEGRATION CHALLENGES |
| REDUCED CONTROL OVER COURSE CONTENT AND STUDENT EXPERIENCE | TECHNICAL INTEGRATION CHALLENGES | RESISTANCE TO SHIFT IN INSTRUCTIONAL METHOD |
| TECHNICAL INTEGRATION CHALLENGES | RESISTANCE TO SHIFT IN INSTRUCTIONAL METHOD | EFFICACY OF DIGITAL COURSEWARE IN IMPROVING LEARNING OUTCOMES |

...Along with Dissatisfaction with the Products in Use

Based on your experience, how likely are you to recommend digital courseware to a peer at another institution?



Key Takeaways

- Faculty struggle to distinguish courseware products from other "instructional" technologies, particularly the LMS
- Faculty are often encouraged to adopt courseware, but institutional conditions do not actively support their efforts
- Courseware adoption decisions often include at least two levels in an institution – faculty and institution
 - Communication between suppliers and customers can be challenging
 - May lead to misaligned expectations and / or low stakeholder buy-in
- Courseware market is complex and options are difficult to navigate and compare for institutional stakeholders

03 Introducing the Courseware in Context (CWiC) Framework

What is the extent of use of courseware at your institutions? How do you think about evaluating quality or fit for a course? How does that process compare to evaluating textbooks?

Responding to the Initial Findings

The Problem

Identified hurdles in expansion of digital courseware included:

- Inconsistent understanding of courseware and its potential impact
- Little faculty support to identify and implement quality courseware products
- Dissatisfaction from past experiences

Developing a Solution

In Fall 2015 Tyton Partners, SRI international and OLC began a collaborative effort to:

- Establish a refined definition of "digital courseware" and resources to support courseware product differentiation
- Establish an approach for evaluation of courseware "quality" and develop resources to help faculty and other academic leaders with decision-making
- Refine these resources with perspectives of the market and disseminate freely and broadly through a diversity of channels starting in the Summer 2016

The Courseware in Context ("CWiC") Framework is the result of these efforts – this tool supports postsecondary decision-makers to navigate the market of courseware solutions

CWiC Framework Formally Launched October 2016



Solution

Provides a consistent definition of "digital courseware"

Establishes a common lexicon for courseware and its functionality

Builds transparency into the learning science behind courseware product design

Provides recommendations for priority product features to help meet goals

A field-owned resource, shared freely and broadly and regularly updated



Refined Definition of Courseware Encompasses a Range of Instructional Technology Products and Delivery Models

Courseware is *instructional content that is scoped and sequenced to support*

delivery of an entire course through purpose-built software. It includes assessment to

inform personalization of instruction and is equipped for adoption across a range of

institutional types and learning environments.

Courseware can be delivered in a single product or by the thoughtful integration of different products that collectively deliver a complete course

All-in-One Courseware

Course-complete content, assessment, data and analytics delivered through a single platform that integrates with an LMS for course administration functions only.

Courseware via LMS

Courseware with structured and aligned course-complete content, assessment and analytics, that is hosted through an institution's LMS. Reliant on LMS for functionality like customization, collaboration, some analytics as well as course administration.

Courseware as a Collection of Tools

An integrated experience that is delivered through the coordinated use of content (whether commercial, OER, or user-generated), commercially available assessments or interactive tools from different sources, utilizing a course delivery platform – often the LMS as a means for administration.



Four Components of Framework Drive Product Understanding and Awareness of Implementation Best Practices



The Courseware in Context (CWiC) Framework supports postsecondary decision-makers to navigate the market of courseware solutions to find the solution that best fits their institutional goals and implement it effectively.



CWiC Product Taxonomy Identifies Key Differentiating Courseware Product Features, Organized into Capabilities

FUNCTIONAL CAPABILITIES DEPTH OF MEASUREMENT SCAFFOLDING INTERACTION & STRUCTURE The presence of The presence of Support structures variety and higherto help learners achieve academic structures order learning skills and grow beyond their and the capacity to assess learning in in instruction current proficiencies relation to them LEARNER ADAPTIVITY FEEDBACK AUTONOMY The adjustment of The deployment of The ability for learners to impact or augment presentations of reports, notifications, content in relation to or visualizations to Instruction based on their choices knowledge of learners learners or educators CUSTOMIZATION COLLABORATION USABILITY CONFIGURATION Collaboration is a The ability for Features of software requirement or opportunity educators or and user-centered for learners to engage course designers to design that support with other people in the sustained engagement alter learning or context of learning: peers, assessment content mentors, or educators

CAPABILITIES ACCESSIBILITY BROWSER / OS COMPATIBILITY INTEROPERABILITY **PRIVACY & SECURITY** SCALABILITY DELIVERY PLATFORM CAPABILITIES CONTENT MANAGEMENT COURSE ADMINISTRATION REPORTING

PROCUREMENT

Technical / Course Management Focused



Courseware Implementation is Evaluated at the Institutionand Course-Level, Derived from OLC Scorecards



Source: Categories derived from the OLC Online and Blended Learning Scorecards

IN CONTEXT

Three Instruments Are Available to Support Different Roles and Decision-Points in Courseware Implementation

THE CWIC PRODUCT PRIMER

- Abbreviated tool that helps users identify priority courseware capabilities during the product exploration and evaluation phase of selection
- · Ideal for faculty just beginning to explore courseware products



THE CWIC DESIGNER

- Designed to support deeper understanding of a courseware product and the learning science principles that underpin product features, among other factors
- Ideal for instructional designers completing a more thorough review of a courseware product and may be useful for informing future product selection; solely focused on product-related dynamics



COURSEWARE

IN CONTEXT

THE CWIC FRAMEWORK

- Complete framework including the Product Taxonomy and Efficacy Research Index, plus Course- and Institution-Level Implementation Guides
- Ideal for administrators completing course reviews; focused on both product- and implementation-related dynamics

Launched Interactive Version of CWiC Framework in April 2017 on LearnPlatform



Analyze Implementation & Student Outcomes







CWiC Framework Is Maintained in Accordance with Values of Openness, Flexibility, and Continuous Improvement



- Freely available online
- Openly licensed and able to be used by institutions and vendors
- Includes resources to support adoption and use, and mechanisms to solicit user feedback



- Designed for application in various institutional contexts and instructional settings
- Maintained as three separate instruments designed for use among different audiences and based on need
- Able to be re-used, re-mixed, and modified
- Embedded or aligned with several evaluative tools/rubrics

Framework may be used by the field based on need



- Includes mechanisms to solicit input to inform maintenance of the Framework over time
- Guided by governance structure made up of a selected group of practitioners and industry stakeholders serving in various supporting roles
- Updated on an annual basis

Framework remains

"organic" resource that

evolves with the field

Benefits

Description

Framework is "field-owned"



Framework Is "Field-Owned" and Governance Is Led by Institutional Leaders Participating in an Executive Committee

Governance Structure

Executive Committee*

Oversee all aspects of governance; set priorities and agendas; approve changes and updates









Strategy Council

Guide strategic direction and priorities; serve as counsel to Exec. Committee and Dissemination Partners





COURSEWARE



Drive awareness and adoption; work with media and new / potential partners; help develop and improve upon collateral and other pubic-facing materials





CWiC Framework Is Currently Being Applied to a Range of Institutional Use Cases

| | Georgia State University | University 1 | University 2 | University 3 |
|---------------------|--|--|---|---|
| CWiC Application | Modified the CWiC Product Taxonomy to develop an RFI to collect informa- tion on adaptive learning providers as part of its APLU adaptive course- ware grant | Applied the Interac- tive CWiC to com- pare the implemen- tations of two courseware products in the same algebra course | Apply the Interactive CWiC Framework to support the evaluation of two courseware products to inform the selection of a new tool to be used in a math placement protocol | Evaluate the implementation of a courseware product using the Interactive CWiC Framework |
| Participants | Instructional DesignersFaculty | Instructional DesignersFaculty | AdministratorsFaculty piloting courseware | AdministratorsFaculty using courseware |



As CWiC Framework Enters Year 2, Emphasis on Accessibility and Vendor Engagement Will Expand



- Build awareness of the CWiC Framework through conference sessions, publications, and pilots
- Develop interactive version of the CWiC Framework on the LearnPlatform
- Solidify governance structure

- Broaden adoption
- Explore partnerships with quality frameworks / evaluation tools to expand flexibility / value of CWiC
- Engage with vendor community
- Expand accessibility coverage and resources
- Identify and support transition of CWiC to new organizational home

04 Where We Are Today (with Digital Learning & Courseware)

Research Efforts in 2016 Were Informed by Two Years of Market Evolution and Data Collection

| 2014 | 2015 | 2016 | 2017 |
|---|---|--|--|
| Digital courseware survey of 2,700 faculty and admins | Publication of <i>Time for</i> <i>Class 2015</i> series, re- vealing high awareness of courseware, but low levels of satisfaction, high barriers to adoption, and confusion around products Kick-off of Courseware in Context (CWiC) project with OLC, and SRI Inter- national. Goal of bringing courseware definition to market and developing resource to improve market understanding | Release of CWiC Framework in Oct 2016, kickoff of inaugural Executive Committee term Administration of survey of 3,500 faculty and administrators regarding digital learning implementa- tion | Release of <i>Time for Class</i> 2017 Development of interactive version of CWiC Framework to improve usability |

The 2016 Survey Administration Expanded to Address Postsecondary Digital Learning, Inclusive of Courseware

- We had four key objectives in the current administration and market scan:
 - Understand the current degree of implementation of digital learning within US
 postsecondary institutions
 - Identify key organizational factors enabling digital learning implementation
 - Assess the extent to which courseware has been adopted as part of institutional digital learning strategies
 - Review and update the state of the supply-side ecosystem
- In addition to refining definition of "courseware", we tested "digital learning" as the use of instructional technologies to support teaching and learning in face-to-face, online, and/or blended / hybrid environments
- Administered survey in Fall 2016 secured more than 3,500 responses from teaching faculty and administrators
- Released "Time for Class: 2017 Update" in June
Four Key Themes in Digital Learning Products and Implementation Emerged from Most Recent Administration

- The planning and execution of digital learning initiatives is falling short of "strategic" at many institutions
- Faculty are a linchpin in digital learning success, yet are under-supported
- 3
- Digital learning decision-making is decentralized
- Low courseware product satisfaction inhibits larger-scale adoption

Digital Learning Supports a Range of Strategic Priorities; Access, Faculty Innovation, and Revenues Are Paramount

Is the use of digital learning at your institution important to helping achieve any of the following strategic priorities? (Select all that apply)

Percent selecting each strategic priority

| STRATEGIC PRIORITY | 2-YEAR, LOW DISTANCE | 2-YEAR, HIGH DISTANCE | PUBLIC 4-YEAR, LOW DISTANCE | PUBLIC 4-YEAR, HIGH DISTANCE | PRIVATE 4-YEAR, LOW DISTANCE | PRIVATE 4-YEAR, HIGH DISTANCE |
|--|----------------------------|-----------------------------|--------------------------------------|---------------------------------------|---------------------------------------|--|
| Improve access and scheduling flexibility for students | 78% | 83% | 71% | 82% | 59% | 75% |
| Encourage faculty to implement innovative instructional methods | 63% | 70% | 67% | 71% | 70% | 61% |
| Increase retention and rates of degree completion | 55% | 68% | 50% | 64% | 41% | 52% |
| Identify new / alternative revenue streams | 40% | 51% | 64% | 71% | 61% | 76% |
| Become more cost effective in course development and delivery | 50% | 51% | 5 <mark>6%</mark> | 63% | 44% | 69% |
| Enhance the value of our institutional brand | 42% | 49% | 39% | 55% | 44% | 62% |
| Increase the diversity of the student body | 22% | 40% | 24% | 35% | 23% | 34% |

Note: Response options include: Digital learning has been / is being implemented in pursuit of this strategic priority, Digital learning is not integral to this strategic priority, Not a Strategic Priority / NA; Table shows percent of administrators who indicated that "Digital learning has been / is being implemented in pursuit of this strategic priority"

On Academic and Financial Goals, Perceived Impact of Digital Learning v. Expectations Are Mixed

PROGRESS TOWARD GOALS AS A RESULT OF DIGITAL LEARNING IMPLEMENTATION (ADMIN.)



Note: Respondents for each strategic priority above include only those who indicated that digital learning has been / is being implemented in pursuit of this strategic priority in a prior question

Administrator survey question: has your institution demonstrated progress toward its goals In your strategic priority area as a result of implementing digital learning technology?

Source: Tyton Partners Time for Class 2017

Administrators across Institution Types Agree that Support for Faculty PD Is Critical to Digital Learning Success...

Understanding that there is variability, please select the top 3 most important factors that contribute to a successful implementation of digital learning?

Percent selecting each factor

| STRATEGIC PRIORITY | 2-YEAR, LOW DISTANCE | 2-YEAR, HIGH DISTANCE | PUBLIC 4-YEAR, LOW DISTANCE | PUBLIC 4-YEAR, HIGH DISTANCE | PRIVATE 4-YEAR, LOW DISTANCE | PRIVATE 4-YEAR, HIGH DISTANCE |
|--|----------------------------|-----------------------------|--------------------------------------|---------------------------------------|---------------------------------------|--|
| Support for faculty professional development | 72% | 75% | 63% | 69% | 72% | 59% |
| In-house IT / technical support | 57% | 58% | 56% | 58% | 66% | 61% |
| Incentives for faculty practice change / course redevelopment effort | 36% | 38% | 52% | 44% | 50% | <mark>39%</mark> |
| Processes / resources for supporting course re-design | 28% | 30% | 49% | 43% | 43% | 50% |
| A Center for Teaching and Learning at your institution | 25% | 18% | 21% | 20% | 22% | 18% |
| Processes / resources for evaluating quality / effectiveness | 28% | 31% | 20% | 19% | 15% | 18% |
| Alignment of stakeholders in support of implementation | 20% | 18% | 17% | 18% | 17% | 32% |
| A Center for Online or Distance Education at your institution | 30% | 25% | 14% | 24% | 8% | 17% |
| Use of external partners / vendors | 5% | 4% | 3% | 2% | 6% | 2% |

Note: Top 3 responses per segment are shaded

...But Faculty Time / Effort Remains by Far the Most Common Barrier to Digital Learning Implementation...

What do you perceive to be the most significant barriers to implementing digital learning at your institution? (Select up to 5)

Percent selecting each barrier

| STRATEGIC PRIORITY | 2-YEAR, LOW DISTANCE | 2-YEAR, HIGH DISTANCE | PUBLIC 4-YEAR, LOW DISTANCE | PUBLIC 4-YEAR, HIGH DISTANCE | PRIVATE 4-YEAR, LOW DISTANCE | PRIVATE 4-YEAR, HIGH DISTANCE |
|----------------------------------|----------------------------|-----------------------------|--------------------------------------|---------------------------------------|---------------------------------------|--|
| Faculty time/effort | 65% | 68% | 81% | 75% | 72% | 79% |
| Concern over efficacy | 51% | 38% | 56% | 48% | 46% | 49% |
| Competing priorities | 56% | 41% | 44% | 45% | 41% | 47% |
| Limited IT support | 37% | 45% | 35% | 36% | 45% | 51% |
| Faculty resistance | 22% | 39% | 39% | 46% | 39% | 39% |
| Institutional culture | 27% | 29% | 34% | 25% | 43% | 36% |
| Technical integration challenges | 37% | 38% | 32% | 31% | 30% | 34% |
| Cost to institution | 37% | 34% | 22% | 20% | 28% | 31% |
| Cost to students | 16% | 25% | 9% | 22% | 7% | 7% |
| Technology is not yet mature | 6% | 10% | 13% | 11% | 15% | 19% |

Note: Top 3 responses per segment are shaded

...And Despite its Importance, Faculty PD Is at Best a Work-in-Progress Effort at Most Institutions

SCALE OF PROFESSIONAL DEVELOPMENT SUPPORT FOR DIGITAL LEARNING IMPLEMENTATION (ADMINISTRATOR)



Top-Down" Decision-making vis-à-vis Online Program Development Is Limited; Decisions Are Collaborative

Who influences the decisions on the launch or development of new online / blended programs at your institution? (Select all that apply)



Note: Response options include: College / institutional level leadership; Individual faculty; Division / program level leadership, Department level leadership; Other

Digital Material Selection Is Driven by Faculty, Both Alone or in Collaboration with Other Institutional Stakeholders





Note: Response options include: College / institutional level leadership; Individual faculty; Division / program level leadership, Department level leadership; Other

While 2-Year Schools Report the Most Dept-Level Use, Courseware Remains Primarily an Individual Activity



EXTENT OF COURSEWARE USE (ADMINISTRATOR)

Administrator Survey Question: Which description below best describes the use of courseware at your institution?

Administrators and Faculty Would (Still) Not Recommend their Courseware Products to Peers...

COURSEWARE NET PROMOTER SCORE (ADMINISTRATOR & FACULTY)



Note: A Net Promoter Score is evaluated by asking, "How likely are you to recommend this [product, service, or company] to a friend or colleague?" with 10 being "very likely" and 0 being "not at all likely." People responding 9 or 10 are considered to be promoters of the product, those who select 7 or 8 are neutral, and respondents indicating 6 or below are considered to be detractors. The NPS is calculated by subtracting the portion of respondents that are detractors from the portion that are promoters, and it is a metric used by companies across industries as an indication of customer satisfaction.

Source: Tyton Partners Time for Class 2017

TYTON PARTNERS

Presenting an Expansion Challenge When Recommendations Are Key to New Product Discovery and Selection

Which of the following resources are most valuable to inform your digital learning product discovery and selection? (Choose up to three)

Percent selecting each resource



05 Implications for Your Institution

Scaled Digital Learning Is Changing the Cost, Quality and Access Equation in Higher Education

AVERAGE INSTRUCTION AND STUDENT SERVICES SPENDING PER COMPLETION; AND AVERAGE COMPLETIONS PER 100 FTES, BY INSTITUTION SIZE AND PERCENT TAKING COURSES AT A DISTANCE (UNDERGRADUATE)



INSTRUCTION & STUDENT SERVICES SPEND PER COMPLETION*

Completions included in analysis are associates degrees, bachelors degrees, and certificates of at least one year

** Excluded, low n

Sources: Babson Survey Research Group, IPEDS, Tyton Partners analysis

Can this Virtuous Cycle Break The Iron Triangle?



Scaling High Quality Digital Learning Requires a Systematic, Sustained Approach to Answering Key Questions



Vendor Engagement

Answering these Questions Comes from A New Approach to Strategic Planning for Scaling Digital Learning...



... As Planning and Persuasive Rationale Leads Execution





Selected Questions

- How would you respond to the question "How far along is your institution toward implementing digital learning in relation to its strategic plan?" (0-100 scale)
- Do any of the themes presented in Section 04 resonate with you? How have those themes impacted your ability to implement digital learning at your institution?
- How have your partner organizations (vendors, associations, etc.) accelerated or slowed your implementation of digital learning?