Higher Education in the New Digital Ecosystem

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Higher Education in the New Digital Ecosystem

Randy Bass
(Georgetown University)

Minnesota eLearning Summit
July 27, 2016
2030

“The future is already here – it's just not evenly distributed.”

William Gibson
MAT 119: Statway @ LaGuardia

Non-Credit Bearing

- Non-Credit Bearing
- CEAF

Credit Bearing

- Credit Bearing
- Calculus Track
- College Algebra
- MAT119
- M2 COMPASS score 35 or higher
- M1 COMPASS score 35 or higher
- M1 COMPASS score between 40 and 54
- M2 COMPASS score between 40 and 54

Millions of students enter higher education each year.

Over 60% of all students entering higher education are required to complete developmental math courses.

Of those students, only 30% pass these courses.

Over 60 percent of all students entering community colleges in the United States are required to complete developmental courses and a staggering 70 percent of these students never complete the required mathematics courses, blocking their way to higher education credentials and with them, a wide array of technical and related careers. Traditionally, only 5 percent of students earn college math credit within a year of continuous enrollment. In its first two years, over 50% students enrolled Carnegie's Pathways have achieved college math credit within a year.
“We are giving them a bridge to successfully finish their degree through contextualized math content and exposure to psychological interventions that improve their attitudes towards math and learning.”

Milena Cuellar, Statway in one term
What is this case a case of?

Data analytics >
adaptive learning

Alignment with
ambitious larger
outcomes

As much about
the affective as
cognitive

“REBUNDLING”

StatWay implemented at LaGuardia CC

Dev. Math + College-level Stats (complex problems)

MAT119 -

statway

12-week term

Spring 2014

8h/w (6 lecture hours +
Complete Math Req)

Revised their institution-
wide core competencies:

- inquiry
- Global Learning
- Integration

“We are giving them a bridge to
successfully finish their degree
through contextualized math
content and exposure to
psychological interventions that
improve their attitudes towards
math and learning.”

Milena Cuellar, Statway in one term
National Forum Pathways Program
Three ways to reframe the conversation

Shift from digital tools to learning ecosystem.

Shift from unbundling to rebundling.

In a rebundled higher education, the concept of the whole person is key.
Open and Integrative
Designing Liberal Education for the New Digital Ecosystem

By Randy Bass and Bret Eynon

With Bret Eynon, LaGuardia Community College
If we were designing higher education for this moment in history what would it look like?
If we were designing higher education for this moment in history what would it look like?

Design for the big things first.
Crisis in public funding

Skyrocketing Tuition and Student Debt

New Narrative: Higher Ed is “Broken”
Public Accountability

Keeping Score: New Iteration and Limitations of the College Scorecard

Return on Investment
Completion
Employability
Learning?

Competing Visions & Definitions of the Purpose of Higher Education
Changing Student Demographics:

An Emerging New Majority
The Onrushing Digital Revolution

Scale
Automate
Reduce instructional costs
External Forces of Potential Disruption

Public Funding

Accountability

Expanded access

Skill-based Learning

Open Online Courses

Data Analytics / Adaptive Learning

Take the world's best courses, online, for free.
“Unbundling ≠ Equity”
CUNY’s ASAP program
The power of “high touch” guided pathways for new majority students

Gallup-Purdue
Vital role of mentorship, signature work, high impact practices in life-long engagement and thriving.
Life in College Matters for Life After College

New Gallup-Purdue study looks at links among college, work, and well-being

by Julie Ray and Stephanie Kafka

WASHINGTON, D.C. -- When it comes to being engaged at work and experiencing high well-being after graduation, a new Gallup-Purdue University study of college graduates shows that the type of institution they attended matters less than what they experienced there. Yet, just 3% of all the graduates studied had the types of experiences in college that Gallup finds strongly relate to great jobs and great lives afterward.

Purdue-Gallop Poll on Engaged Work and Flourishing

Two most important predictors of success:

1) Adult mentor who cared about you
2) Sustained project
Purdue-Gallop Poll on Engaged Work and Flourishing

64% I had a professor who made me excited about learning.

27% Professor cared about me as a person.

22% A mentor who encouraged my goals and dreams.

14% had all three
Purdue-Gallop Poll on Engaged Work and Flourishing

32% A long term project that took a semester or more to complete.

30% Internship or job where applied learning.

20% Extremely involved in extracurricular activities or organizations.

%6 of all graduates
Three ways to reframe the conversation

Shift from digital tools to learning ecosystem.

Shift from unbundling to rebundling.

In a rebundled higher education, the concept of the whole person is key.
Formation by Design

Project Progress Report
2014-2015

DESIGNING THE FUTURE(s) of the university

https://futures.georgetown.edu/formation

“whole person”
Educating the whole person?

Knowledge + Skills + Dispositions (+ Values)

Dispositions:
- Learning to learn
- Critical thinking
- Creativity
- Curiosity
- Resilience
- Empathy
- Humility
- Ethical Judgment

Striving to cultivate a balanced person, with intellectual, affective, imaginative and reflective capacities.
The great tension of our time in education is between integration and dis-integration.
Two paradigms of education

Disintegrative (unbundled):
Design of discrete or granular learning experiences
Elementary and discrete competency-based learning
Learning decoupled from formal boundaries
Analytics that track narrow or micro learning

Integrative (bundled, holistic, coherent):
Curricular & co-curricular conceived as part of a whole
Knowledge, skills & dispositions
Connections & integration
Design of learning experiences for whole person development
Two paradigms of education

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Rebundling: Toward a New Synthesis

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If we were designing higher education for this moment in history what would it look like?

Disintegrative in service to the integrative
Design Principles:  
a Vision worth Working Toward

Learner-centered

Networked

Integrative

Adaptive
Design Principles for a Rebundled Institution

**Learner-centered**

Do your learning environments support engagement in the context of empowerment and ownership of learning?

Engagement and inquiry at scale.
“In Habitable Worlds, you won’t just learn a bunch of facts. You’ll have to learn how to think like a scientist, confronting what we don’t know, learning how to use logic and reason to cope with uncertainty....”

Prof. Ariel Anbar
Open Learning Initiative (OLI)

Intelligent tutors
Reinventing Introduction to Statistics

15-week Traditional Statistics Course

8-9 weeks with OLI materials + Professor

Remaining 5-6 weeks

Applied projects on student Interests

Advanced topics and problem-solving
Machine/Algorithm + Human Judgment
Design Principles for a Rebundled Institution

**Learner-centered**
Do your learning environments support engagement in the context of empowerment and ownership of learning?

*Engagement and Inquiry at scale.*

**Networked**
Do your systems and practices maximize community, social learning, and a broad concept of mentorship?
Community & Mentorship

Coaching Team
- Hundreds of students + dozens of instructors and behavior change experts

MTS: Michigan Tailoring System
- A mature, open-source platform for creating content customized for an individual based on data about that individual

Student Information
- Detailed information about thousands of students from student records and online assessments

Individually Personalized Messages
- What we all agree we would say to each student, if only we could...
How’s your research going? And what do you think of the 1st Century America Sites?

Use the comment section here to talk about what you’ve found so far, or to pose questions about your sources, or just to share what you’re working on.
CONNECTED LEARNING

OPENLY NETWORKED

ACADEMICALLY ORIENTED

INTEREST-POWERED

PRODUCTION-CENTERED

PEER-SUPPORTED

SHARED PURPOSE
Design Principles for a Rebundled Institution

**Learner-centered**
Do your learning environments support engagement in the context of empowerment and ownership of learning?

**Networked**
Do your systems and practices maximize community, social learning, and a broad concept of mentorship?

**Integrative**
Are your systems and practices serving to maximize connections and coherence?
How can we help students put their signature work in a larger and more integrative context?

ePortfolio as a vital, longitudinal and integrative learning process
Overview

Designed for educational innovators, the Catalyst site showcases field-tested ePortfolio resources for building student success, supporting outcomes assessment, and sparking institutional change.

Site Overview

Catalyst for Learning offers resources and analysis that spotlight the effective use of ePortfolio to advance student, faculty, and institutional learning. Drawing on the work of skilled leadership teams on 24 diverse campuses, Catalyst makes the case for ePortfolio with a distinctive collection of linked model practices, data on impact, and original research on.

The C2L Hypothesis

Why ePortfolio?

The Catalyst Framework

Inquiry, Reflection, and Integration

Campus Stories & Profiles

- Outcomes Assessment Stories
- Professional Development Stories
- Scaling Up Stories
- Technology Stories
- Campus Profiles
What Difference does ePortfolio Make?

C2L evidence supports 3 preliminary claims

Sophisticated ePortfolio initiatives:

1. Advance Student Learning & Success
2. Make Student Learning Visible
3. Catalyze Institutional Change
Addressing the Whole Student

Purposeful Self-Authorship

Formal Academic Curriculum

Connecting w/ Faculty & Students

Learning Across Disciplines

Students’ Integrative ePortfolio Practice

Learning Across Semesters

External Audiences

Co-Curricular & Lived Experiences

Advisement & Academic Planning
Claim #1: ePorWolio initially advanced student learning & success. Helping students reflect on & connect their learning across academic, co-curricular and community-based learning experiences, sophisticated ePorwolio practices correlate with higher levels of student success, as measured by pass rates, GPA and retention.

LaGuardia CC High Pass Rates (C & up)

<table>
<thead>
<tr>
<th>2009-10 Academic Year</th>
<th>Comparison Courses 49.4%</th>
<th>ePortfolio Courses 58.3%</th>
</tr>
</thead>
</table>

40 42 44 46 48 50 52 54 56 58 60
ePortfolio integrated into Metro Health Academies, an SFSU learning community project for high-risk students

<table>
<thead>
<tr>
<th></th>
<th>Metro Academy, First Year/First Time Students</th>
<th>All SFSU First Year/First Time Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Yr Retention Rate</td>
<td>90.0%</td>
<td>79.3%</td>
</tr>
<tr>
<td>3 Yr Retention Rate</td>
<td>79.0%</td>
<td>60.0%</td>
</tr>
<tr>
<td>4 Yr Grad’n Rate</td>
<td>24.6%</td>
<td>14.9%</td>
</tr>
</tbody>
</table>
Spring to Fall Retention Rates

- No ePortfolio Courses: 52.7%
- 1 ePortfolio Course: 60.9%
- 2 ePortfolio Courses: 66.2%
- 3 ePortfolio Courses: 71.4%
ePortfolios for the new ecology

IUPUI – Reflection in the First Year: A Foundation for Identity and Meaning Making

Updated as of 1/10/14

The electronic Personal Development Plan (ePDP) is scaffolded into the curriculum of the first-year seminar at IUPUI so as to allow students to build a solid foundation for meaningful college experiences. The seven sections of the portfolio lead students through guided reflection prompts that ask them to consider who they are, why they are in college, and how the college experience support and enhance their future goals. This initial portfolio is intended to be updated throughout college experience so that the student is engaged in recursive planning, documenting, and reflecting on their personal and intellectual growth throughout college.

Click here for the full practice in IUPUI’s Campus Project ePortfolio

Doing Things Differently: Scaling Up at Guttman Community College

Guttman Community College opened its doors to its inaugural class of students in August 2012, with ePortfolio as the centerpiece for student and institutional learning.
<table>
<thead>
<tr>
<th>Building my ePortfolio</th>
<th>Agree/Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helped me make connections between ideas</td>
<td>75.6%</td>
</tr>
<tr>
<td>Helped me think more deeply about course content</td>
<td>64.4%</td>
</tr>
<tr>
<td>Allowed me to be more aware of my growth &amp; development as a learner</td>
<td>69.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>My (ePortfolio-enhanced) course engaged me in...</th>
<th>Quite a Bit/Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthesizing &amp; organizing ideas, information or experiences in new ways</td>
<td>83.1%</td>
</tr>
<tr>
<td>Applying theories or concepts to practical problems or in new situations</td>
<td>77.2%</td>
</tr>
<tr>
<td>My course contributed to my knowledge, skills and personal development in understanding myself</td>
<td>78.6%</td>
</tr>
</tbody>
</table>

Core Survey, Connect to Learning Project (FIPSE, Making Connections National Resource Center, LaGuardia CC)
Building my ePortfolio helped me to make connections between ideas...

% Agree/Strongly

<table>
<thead>
<tr>
<th></th>
<th>Low Instructor Feedback</th>
<th>High Instructor Feedback</th>
<th>Low Student Feedback</th>
<th>High Student Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>37.6</td>
<td>82.3</td>
<td>49.1</td>
<td>89.2</td>
</tr>
</tbody>
</table>
Design Principles for a Rebundled Institution

**Learner-centered**
Do your learning environments support engagement in the context of empowerment and ownership of learning?

**Networked**
Do your systems and practices maximize community, social learning, and a broad concept of mentorship?

**Integrative**
Are your systems and practices serving to maximize connections and coherence? Connect what has typically not been connected.

**Adaptive**
Are your systems and practices supporting the critical capacities of institutions for improvement and agile innovation?
Assessment FOR Student, Faculty & Institutional Learning

Ground assessment in the authentic work of faculty & students.

Digital systems can help to make student learning visible.
Towards an Integrative Assessment and Analytics

MICRO:
Data collected at the level of the individual user

MESO:
Institutional

MACRO:
Systems, regions, collaborations

Student level (empowerment)
Faculty & Designers (interpretive)
Institutional (empirical)

Ruth Deakin Crick and Simon Buckingham Shum
Design Principles: a Vision worth Working Toward

**Learner-centered**
Engagement at scale & Empowerment

**Networked**
Community, social learning and mentorship

**Integrative**
Integration from the inside out
Connect what has not been connected

**Adaptive**
Institutional learning
Knowledge of a domain

Knowledge of the world

Knowledge of yourself

Heidi Elmendorf, Ph.D.
Biology, Georgetown
Signature paradigm for high-impact learning?

The space of ... formation, transformation, and whole student development
THANK YOU!

QUESTIONS?

bassr@georgetown.edu