Oh, the Places We’ll Go: Adventures in Backwards Curriculum Design

WESTERN NEW ENGLAND UNIVERSITY CENTER FOR TEACHING & LEARNING WORKSHOP
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Journey Map

What is it that we do? What business are we in? What is our value proposition?

On the non-linear exponentially changing environment in which we operate

Building adaptive learning systems to cultivate communities of practice

What is it that we do? What business are we in? What is our value proposition?
Journey Map: Stop #1

- On the non-linear exponentially changing environment in which we operate
- Building learning systems to cultivate communities of practice
- What is it that we do? What business are we in? What is our value proposition?
Reflecting on the Last Decade in Higher Ed

RESOLVING TO A “NEW NORMAL”

“We found ways to adapt during and after the Great Recession.”

HITTING A WALL

“The market is worsening faster than our capacity for change has caught up.”

- Missed enrollment goals
- Declining NTR or missed class composition targets
- New programs not as differentiated as hoped
- New markets too expensive to serve
- Don’t know how we’ll finance strategic ambitions

- Not pursuing enough new programs, fast enough

Great Recession combined with future demographic changes seem insurmountable

Staff and faculty step up to efficiency and growth challenges
Camera Sales 1933 to 2015

https://petapixel.com/2017/03/03/latest-camera-sales-chart-reveals-death-compact-camera/
The 21st C infrastructure is driven by the continual exponential advances of computation, storage & bandwidth, with no stability in sight!!

The rise of the new normal

Continuous innovation essential

rapid set of punctuated moves (potentially never ending)

Journey Map: Stop #2

What is it that we do? What business are we in? What is our value proposition?

Building adaptive learning systems to cultivate communities of practice

On the non-linear exponentially changing environment in which we operate
A college’s purpose is not to transfer knowledge but to **create environments and experiences** that bring students to discover and construct knowledge for themselves, to **make students members of communities of learners** that make discoveries and solve problems.

-- Barr & Tagg (1995, p. 15)
Mastering a field of knowledge involves not only "learning about" the subject matter but also "learning to be" a full participant in the field. This involves acquiring the practices and the norms of established practitioners in that field or acculturating into a community of practice.

Progression of Economic Value
Adapted from Pine and Gilmore (1999)

- Are fungible – Anything that consumers perceive to be identical and interchangeable.
- Are tangible -- Differentiated
- Intangible – A changed state
- Memorable
- Effectual – A new me!
Transformations: Learning to Be

Value is created by guiding aspirants (novices) in a process, sustained over time, that yields a new, different, or changed individual (experts).

I want to become a ________
Enculturation Processes

- Pre-Socialization
- Identity (Re)Discovery
- Identity (Re)Construction
- Maintenance
- Identity Disposition
- Latency
- Identity Project Embedded within a Supporting Subculture

**Role-Identity**
A social position with which one identifies and is committed.

Kleine & Kleine 2000
**Strategic Activities**

- **Develop** Supporting Social network (Curricular & Extra-Curricular)
- **Provide** opportunities to be this type of person
- **Feedback** on how I am as this type of person
- **Cultivate** relevant tacit (how to) and explicit knowledge
Help individuals pursue their aspirations

**Diagnose** aspirations
- What do I want to become?

**Guide** the aspirant in a way that is appropriate for his/her goals
- What path do I follow?

**Evaluate** progress
- How do I know I am making progress?

**Sustain** the transformation
- Support systems that maintain or enhance the transformation through time
Journey Map: Stop #3

What is it that we do? What business are we in? What is our value proposition?

Building adaptive learning systems to cultivate communities of practice

On the non-linear exponentially changing environment in which we operate
Traditional Curriculum Design Process (simplified)

IDEA

Seek ‘best practices’: Identify similar programs, plunder their content & structure

Complete necessary new program and course forms; submit for approval

Launch program
An Alternative:
Backwards Curriculum Design

EVIDENCE BASED INNOVATION FOR DEVELOPING ADAPTIVE
LEARNING SYSTEMS TO CULTIVATE COMMUNITIES OF PRACTICE
Case Example: Developing a Pharmaceutical Business Program at ONU

Initial Hypothesis & Questions

- **Initial innovation team:** Dean of Business, Assistant Dean of Pharmacy Student Services, Associate Professor of Marketing.
- **H1:** Pharmaceutical companies have talent needs that align with what an undergraduate program at the intersection of business and pharmacy can cultivate.
- **H2:** Would anyone employ graduates of such a program? Graduate or Undergraduate?
- **H3:** What competencies would graduates be expected to evidence?
- **H4:** Would students enroll?

Generate Learning Re Assumptions and Hypotheses

- **Blue Ribbon Panel Focus Group**
  - Learning re. H1, H2 and H3
  - Challenge: hiring PharmDs or MBAs for business side positions; value proposition of a properly prepared undergraduate was compelling.
  - Talent profile: (1) Solid business foundation; (2) business discipline, (3) health sciences (chemistry; human biology); (4) understanding of the pharmaceutical industry including regulatory environment especially FDA approval process; (5) experience

Decision Time

- Persevere or Pivot?
Persevere – Develop & Test MVP

- Solid business foundation: BSBA Core curriculum
- Disciplinary focus: Concentration
- Health Sciences: Basic chemistry and human biology for the health sciences
- Understand the pharmaceutical industry including the legal regulatory environment; especially FDA approval process
- Experience: Internship

- Would Blue Ribbon Panelists hire this talent profile (H2)?
- Would students enroll if the major were available? (H4)
- Business students that initially interested in Pharmacy?
- Business students that initially applied to but were denied entrance to Pharmacy?
- Pharmacy students find pharmacy isn’t their thing (retention)?

- Persevere or Pivot?
Let’s build this thing!

Curriculum Development
- Expand the team
- Develop program learning outcomes
- Develop curriculum

Institutional Approval Process
- College Curriculum Committee > Enrollment Management > Provost > President > Trustees

We’re Live!
- Students formally declared the Pharmaceutical Business major the moment the Registrar created the program code in Banner.
- First graduates that May.

Build Community of Practice Network
- Advisory Board
- Healthcare Business Professionals student organization
The learning continues

Where do graduates get jobs?

- H1: Pharmaceutical companies would be the primary employer market.
- Reality: Students were seeking and attaining jobs in areas such as medical supply chain, medical manufacturing, prescription benefit management, hospitals. Pharmaceutical companies were the minority employer market.

Decision time

- Persevere or pivot?
Timeline – Pharmaceutical Business Major:
10 Months From Idea to Deployment

February
- Idea floated

June
- Blue Ribbon Panel Focus Group of Industry Partners
- Initial MVP test

July-August
- Additional team members recruited and engaged
- New program proposal developed

September-October
- New program proposal reviewed by College Curriculum Committee

November
- College Faculty approve the proposal.

December
- Trustees approve proposal
- First students declare major

May
- First students graduate with Pharmaceutical Business Major

August
- First freshmen enter with Pharmaceutical Business as their declared major

May
- First freshmen enter with Pharmaceutical Business as their declared major
Wrap Up

Fact
Our world is changing at an ever increasing pace.

Challenge
Are you building *adaptive learning systems*?
Engage Evidence-Based Innovation

- State fundamental hypotheses/assumptions
- Test early and often
- Regularly persevere or pivot decisions
- Failure is not adapting to learning

- A Champion
- Build an interdisciplinary team
- Recruit an innovation coach
An Invitation

LET’S CONTINUE THE CONVERSATION!
Favorite Resources
References


Smith, Robin M. (2014), Conquering the Content: A Blueprint for Online Course Design and Development