Committing to Quality – at Scale

High-Quality Learning Experiences: Adaptive Learning Platforms and Collaborative Learning Spaces

2017 Western Academic Leadership Forum Annual Meeting
Let’s talk about...

✓ Why schools are recommitting to quality
✓ What that means in the digital context
✓ Examples & lessons learned
✓ Tips for scaling your commitment to quality
“The current obsession with predictive analytics avoids tough conversations about poor instruction and outdated pedagogy.”

“It turns out that what makes a course ‘smart’ isn’t necessarily the use of impressive technology or data; it’s about the way technology enhances the practices of good teaching and learning.”
Education is Changing

why schools are investing (and will invest more) in the quality of courseware
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Why Quality Matters
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How are universities improving the quality of online learning?
Education is Changing
this is where we see everyone going

What’s a course? Lectures + Homework + Exam

Paradigm
Content, then separate Assessment

Creation Process
Start offline, then digitize

Quality
Rushed design phase resulting in poor, static content

Student Expectations
“I don’t have to come to class because the lectures are online.”

Who’s creating?
Instructors/Academics work alone

Blended, Flipped, Fully Online, Nano Degrees, Competency-Based Learning...
Learning experiences integrate authentic assessments
Digitally-native experiences
Learner-centered design for personalized & engaging experiences
“Digital learning solutions should be as good as my other apps and games.”
Courseware production teams
The Learning 2.0 Evolution is here – where are you?

Smart Sparrow helps schools evolve their use of edtech to increase student success.
Powering Learning 2.0

A new generation of learning experiences:
1. designed from the ground up to use applied learning science (e.g. active learning);
2. meeting the affordances of the digital medium;
3. personalized and adaptive;
4. super engaging.

Learning 2.0 is about the thoughtful combination of Learning Design and Analytics to enable student success and empower instructors.

Helping educators and admin make smarter decisions by illuminating how students perform and pinpointing which pieces of content work.

As a result, schools can continuously improve and adapt to real student needs. This saves time and money for institutions, and improves learning outcomes for students.

You must empower teachers with easy-to-use tools for teaching with and analyzing courseware. Educators should be in the center of the pedagogical process, and should feel empowered to improve their practice.

Powered By
SMART SPARROW
Designing for Digital
creating quality courseware and how the paradigm is shifting
We’ve been considering, “What is our message?” and we realized that...

“THE MEDIUM IS THE MESSAGE”

https://en.wikipedia.org/wiki/The_medium_is_the_message
...and the medium has changed.

Designing for this:

is not like designing for this:

Nowadays, a lot of learning is mediated through software.

Designing effective digital learning experiences is not like designing traditional learning experiences.
Instructional Design ≠ Learning Design ≠ Learning Experience Design ≠ Digital Learning Experience Design

...which is the intersection of Learning Design & Software User Experience Design.

It combines everything we know about designing software with everything we know about designing great learning experiences.
There are many examples of courseware where

Great Course Design ≠ Great Learning Experience

Consider this course that “has it all”.

✓ An inspiring subject: Global Challenges
✓ Engaging videos — TED Talks!
✓ Project-based learning
✓ Inquiry-based learning
✓ Peer review
✓ Students create an artifact (blog)
✓ It’s online!

And yet... students were unmotivated and performed miserably. **What happened here?**

✗ The actual implementation of the design intentions (e.g. inquiry-based) didn’t fit the medium (static webpage).

It’s a bit like how a great book can still be a lousy movie.
“The tool in the hand of the artist guides the art”
They say that if all you’ve got is a hammer, everything looks like a nail.

So maybe if all we’ve got is an LMS (a system for the **management** of learning), everything look like this? ↓
“Art challenges technology, technology inspires the art”
— John Lasseter
So first, what is a high-quality Digital Learning Experience?
We already know.
Quality = Engaging & Smart Courses

Let’s unleash a new generation of learning experiences that are super engaging & super smart

- Super Engaging
  - Personalized
  - Engaging (active learning)
  - Much more effective

- Super Smart
  - (adaptive/personalized)

- not so smart
- not so engaging

- Digitized old pedagogy
- One-size-fits-all
- Less effective

- Video
- LMS Courses
- MCQ
- PPT
- PDFs
We already know.
We already know.

But it doesn’t scale.
So, how do you achieve high-quality learning design at scale?
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The answer: Learner-Centered Design.
Learner-Centered Design

is applying what we know about User-Centered Design and Design Thinking to the task of creating learning experiences.

- Methodology
- Process
- Repeatable (Scalable!)
- Trainable
- Documentable
Start with **Empathy**

**Learner-Centered Design starts with the Learner**

**ALICIA MENDOZA**

- **AGE:** 29
- **RACE/ETHNICITY:** Mexican American
- **ESL:** Yes
- **YEAR:** Sophomore

**STATUS:** Part-time

**MAJOR:** Accounting

**WORKS:** 24 hr

**PEL ELIGIBLE:** Yes

**MOTIVATIONS:**
- Education for a higher paying job
- Science classes as a pathway to medical school

**GOALS:**
- Pass her classes
- Finish her degree in two years
- Make a better life for herself

**STUDY SKILLS:** Poor

**COMPUTER SKILLS:** None

**ENVIRONMENT:** Lives with unreliable internet so uses community computers

**STORY:** Alicia is re-entering college and now has the financial and emotional support of her parents who have limited income. She works even though she struggles to pass, and wants to keep her academic record clean.

“I really want to do well in school, but I have a lot of other responsibilities. I wish there was an easier way for me to understand everything.”

**Leon**

**Coursework: Community Health Worker Certification**

**Key Attributes:**
- wants to make a difference
- has personal direction and motivation
- may be pushed in to it
- HIV positive interested in support

**What is most important to this student?**
- Where in the community will I go?
- Will there be funding for my job?

**What worries does this student have?**
- Do I have experience to work with this population?
- Can I deal with different cultures?
- Will I belong?
- How will I pay for it?
- Navigating; getting started

**Environment**
- works part-time
- has some support from family

**Motivation**
- To be done with school so he can get to his career
- wants to pass, graduate and move on

**Computer Skills:** moderate
Exemplary Learning Design

examples of what Smart Sparrow clients are doing
Challenge: “Fixing first year biology”
Too many non-major students drop out of introductory STEM courses, such as biology, because they’re unengaged and don’t see the long-term value. Inspark aims to fix first-year science courses by focusing on education through exploration.

Solution: Focus on better, immersive learning design
The fully-online BioBeyond course motivates students to explore the beauty and mysteries in biology with awe-inspiring graphics, immersive projects and virtual field trips, and engaging questions that baffle even real-world scientists.

Result: A more engaging way to learn biology
Students move away from pure fact memorization and get excited to form a deeper understanding of scientific reasoning and modern science.
Challenge: How do you teach online science well?
Science is often siloed into disciplines. Lecture→Lab courses are boring. LMS-built courses don’t provide a great learning experience.

Solution: Active, game-like science course
A science course for non-science majors that requires logic and reasoning to solve problems, complete simulations, and learn how to find answers to the question “Are we alone in the universe?”

Result: Engaged learners
“[This] innovative approach to teaching made the impossible seem possible... Prior to this class, I had no interest in any form of science. Now I find myself scouring the internet for news about newfound solar systems and the possibility of another habitable world.”
—Student
**Challenge: Giving nurses more time with equipment**
Scheduling time to practice using large medical equipment — like defibrillators — is often expensive and difficult. Nurses need the option to practice as frequently as they deem necessary.

**Solution: Simulating emergency experiences**
In a visually-rich simulation, nurses go through the real step-by-step process required to use a defibrillator, receiving educational feedback when mistakes are made. Analytics show instructors who is doing well and who keeps missing important steps.

**Result: Nurses are more prepared to save lives**
Nurses can practice using a defibrillator over and over again until they feel comfortable with each step required in order to save a patient’s life.
Challenge: Understanding evolution is difficult
Evolution is a challenging and confusing concept to learn. How do you teach so that students accurately parse and process how evolution works in organisms?

Solution: Teach using learning-by-doing activities
A virtual simulation allows students to actually play with evolution, exploring the effects of different environmental events on the distribution of traits in a population. For example, they can create an ice age event, causing hominids to select on hair, leading to an increasingly hairy population.

Result: Developing an intuitive understanding
Students begin to develop an intuition of how evolution works by watching the changes and outcomes of their different experiments first-hand.
Challenge: Teaching complex accounting online
CAANZ is renowned for their rigorous professional training — thousands of people take their courses each year. But their existing tools provided very little insight into performance and pain points, so they didn’t know which concepts were proving most difficult for learners.

Solution: In-depth learner analytics
They created innovative online lessons to teach complex concepts such as acquisition analysis. The built-in analytics allow instructors to derive insights on where and how they can further help students.

Result: Preparing learners and staying competitive
Learning is analyzed and insights are incorporated back into the lessons, which has led to significant improvement in completion rates and a reduction in the average time spent per lesson.
A longitudinal case study*: Impact on student outcomes was significant

- 84% reduction in Failure rate (31% → 5%)
- 52% increase in Distinctions awarded
- 72% increase in High Distinctions awarded

* Same teacher, same syllabus, same exams
Personalize Learning at Scale
Insight!

1. You want quality – so you want to limit design to a few good designers you trust

2. But then you don’t have scale

3. You try to scale that – now you have a QA problem

4. The solution is good processes + training
Really commit to quality at scale

✓ Treat it as change management
✓ Embrace software as a new teaching & learning medium
✓ Get serious about training instructors on how to teach in this new medium. (We can help!)
✓ Hire Learning Designers — set up a “Hub & Spoke” structure
✓ Hire a Learning Innovation Director
✓ Work in small batches
✓ Find star instructors & courses to inspire change across campus
✓ Use Smart Sparrow
Elements of a Smart Course

- Learner-Centric Design
- Designed Adaptivity
- Emphasize Learning-by-Doing
- Enable Feedback Loops and Continuous Improvement