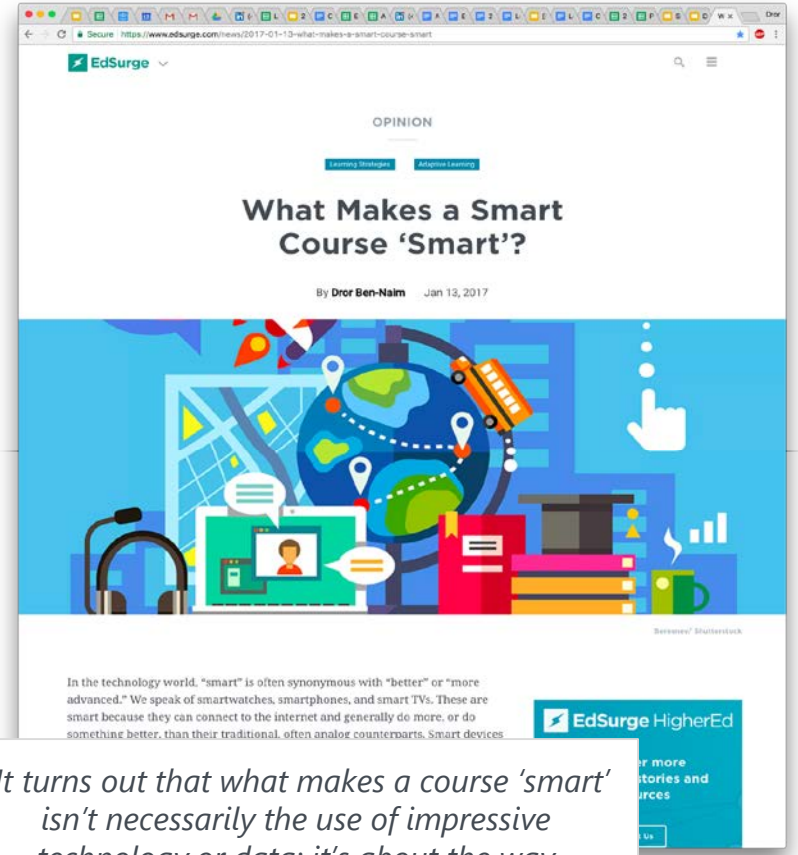
Committing to Quality – at Scale

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

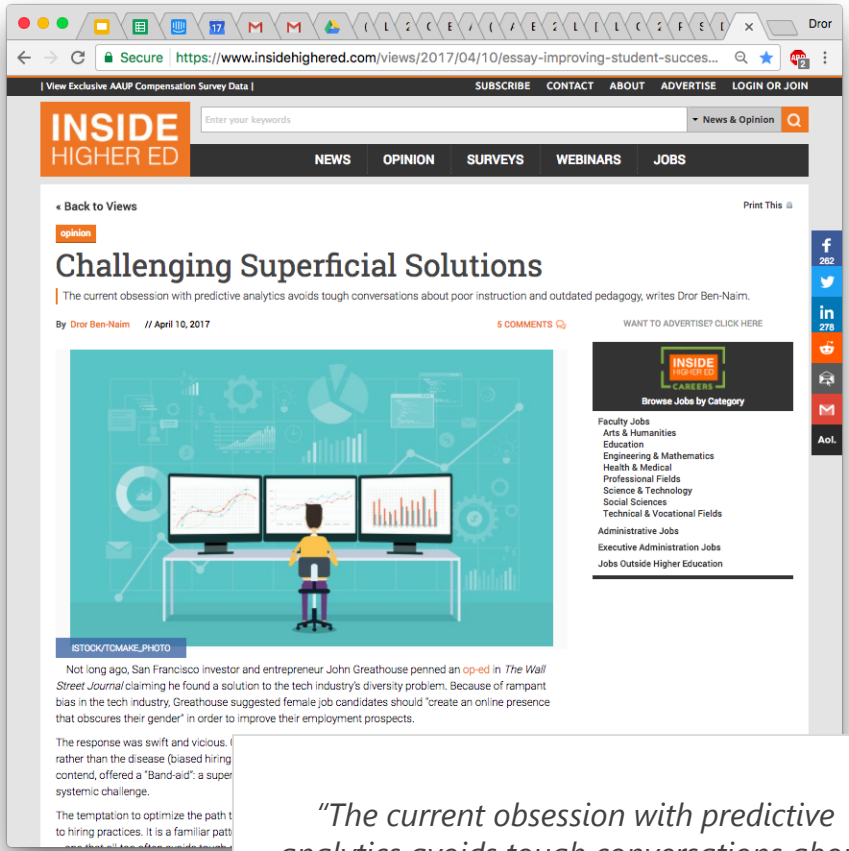
2017 Western Academic Leadership Forum Annual Meeting

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



"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."

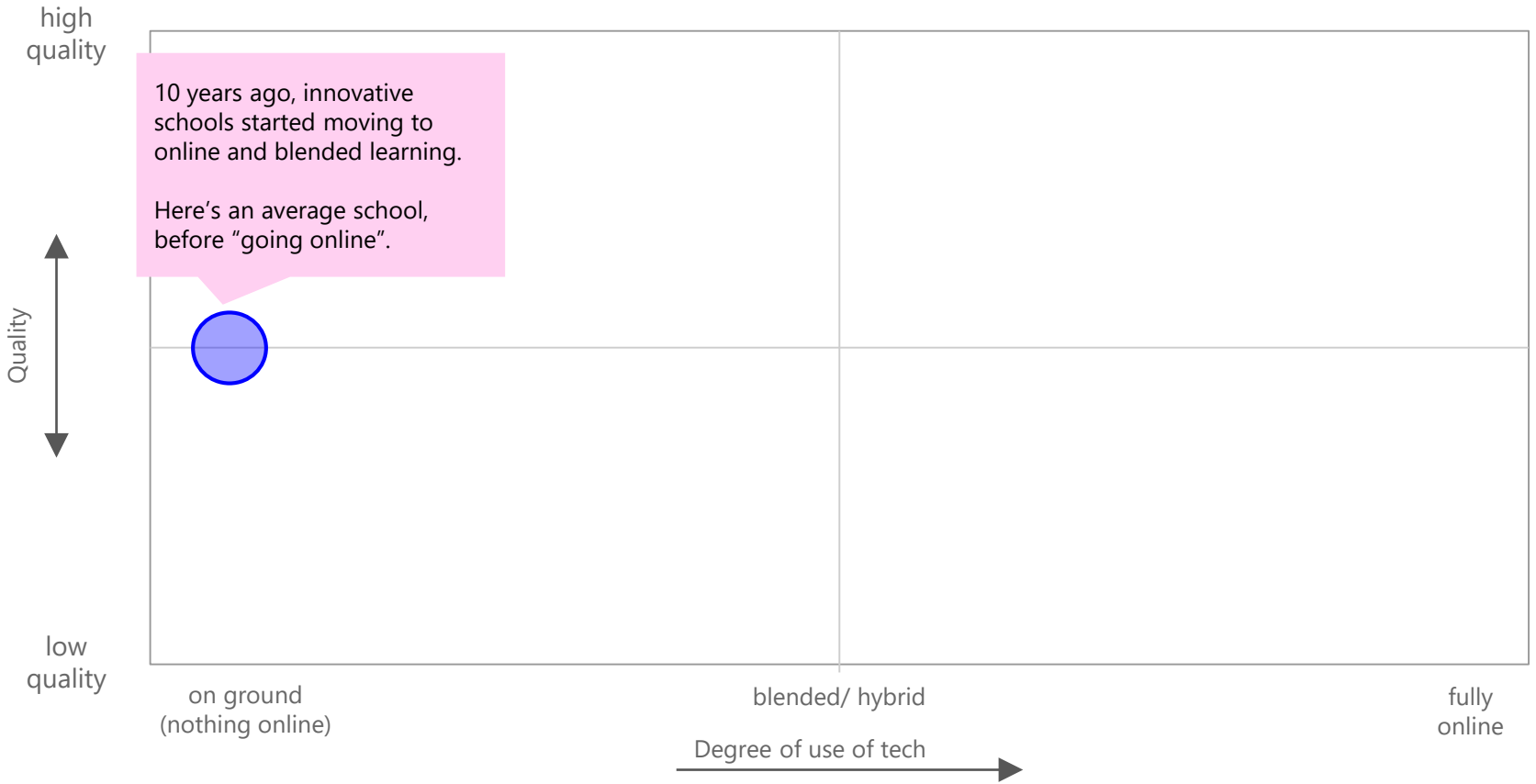


"The current obsession with predictive analytics avoids tough conversations about poor instruction and outdated pedagogy."

Education is Changing

why schools are investing (and will invest more) in the quality of courseware

Why Quality Matters



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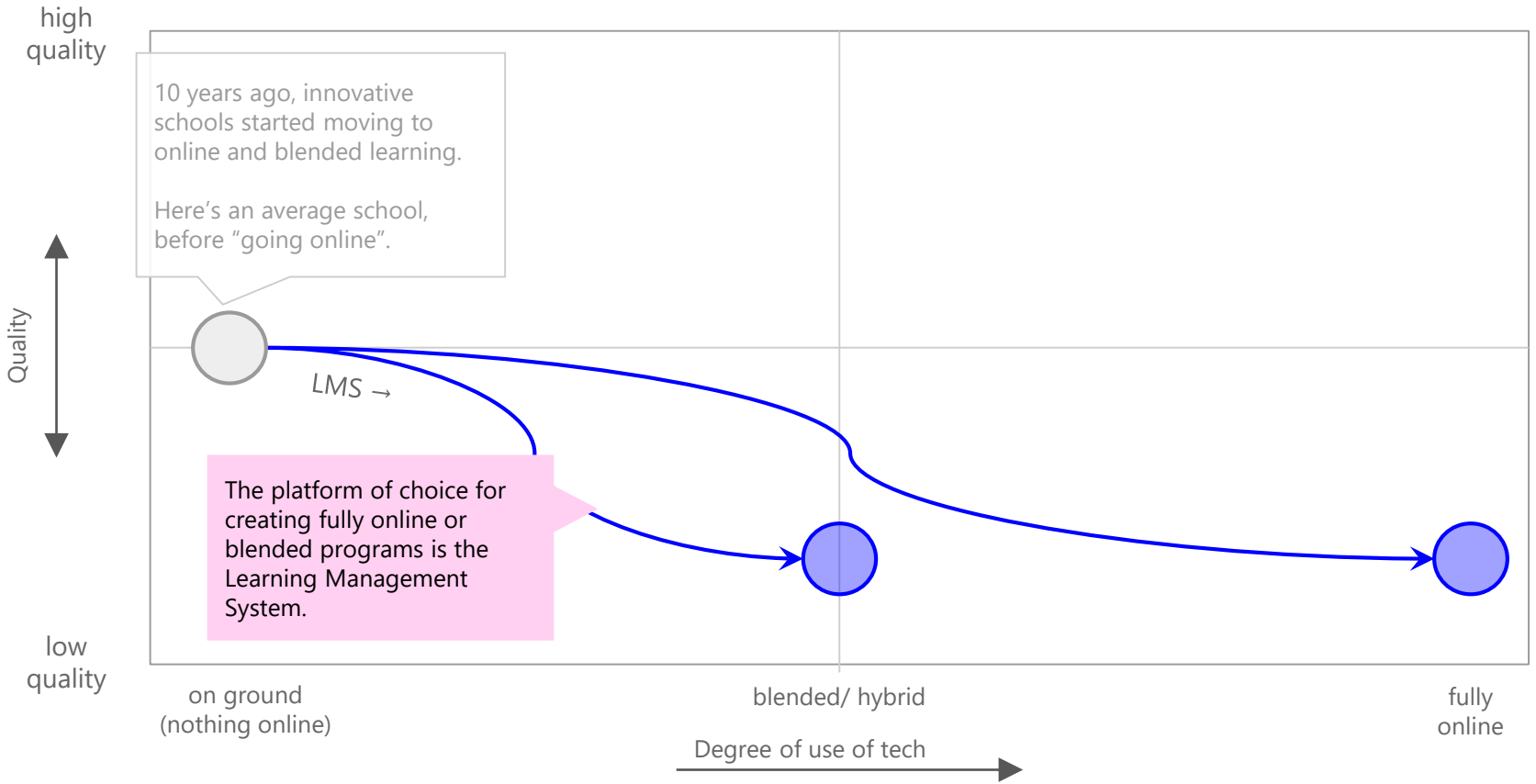

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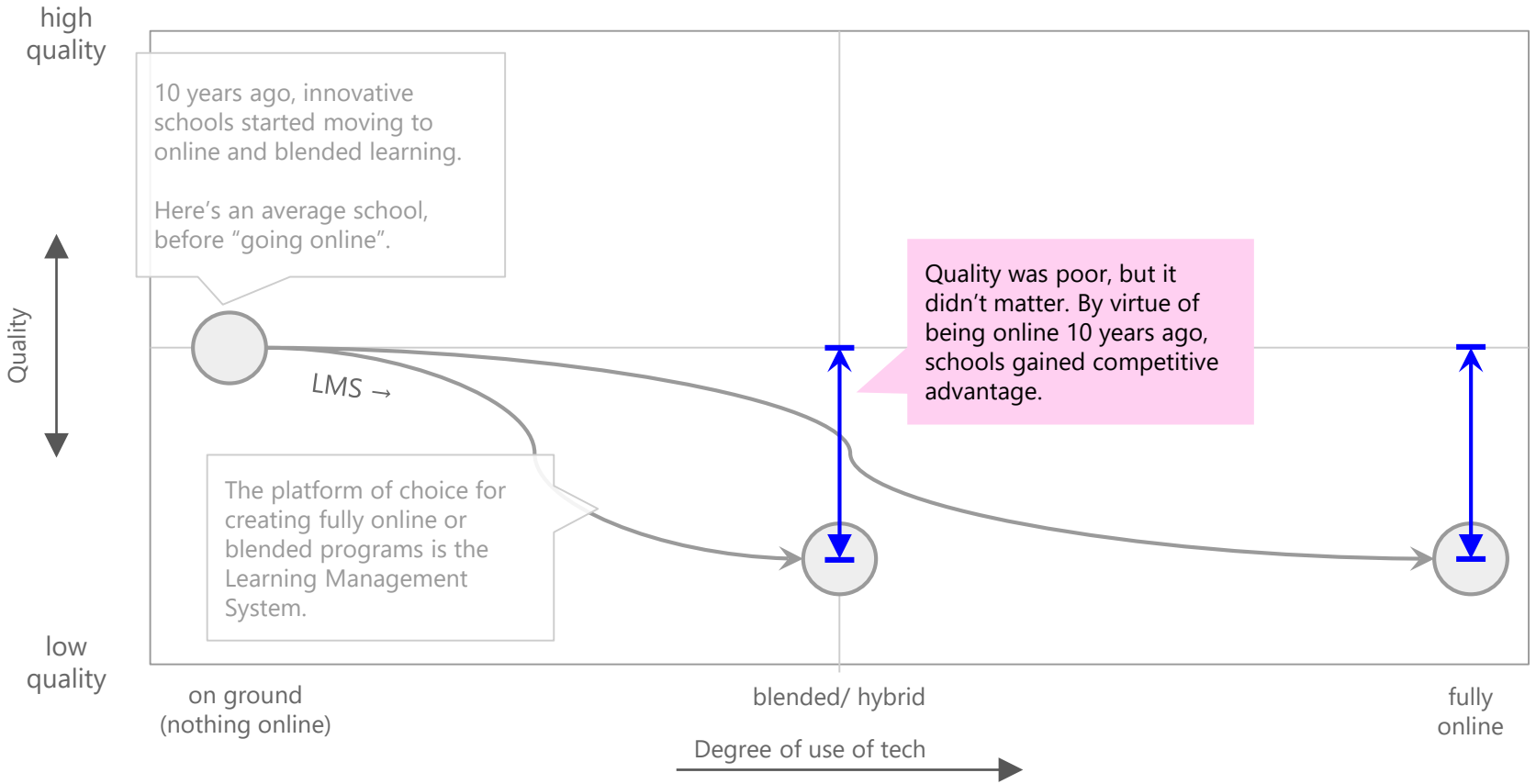

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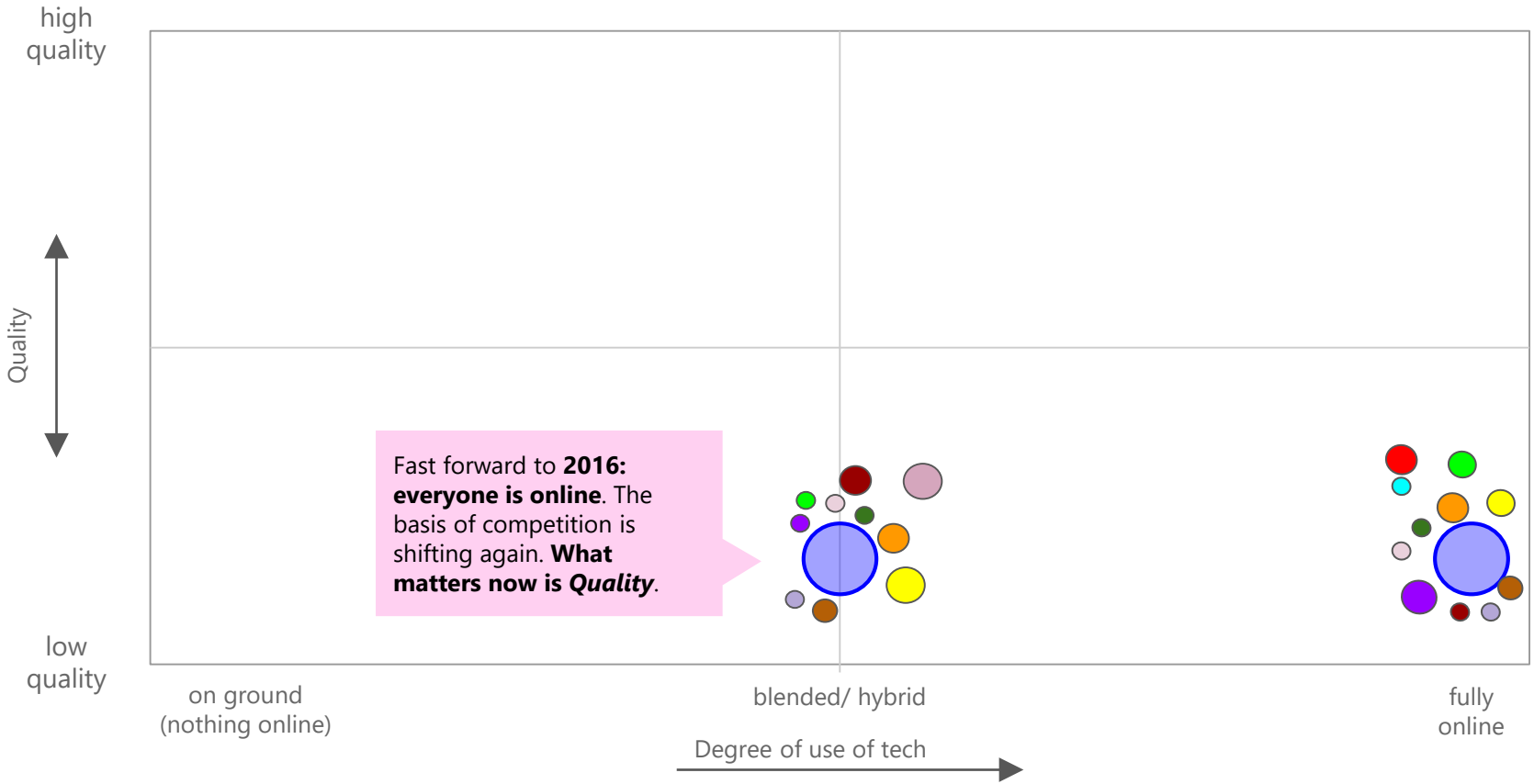

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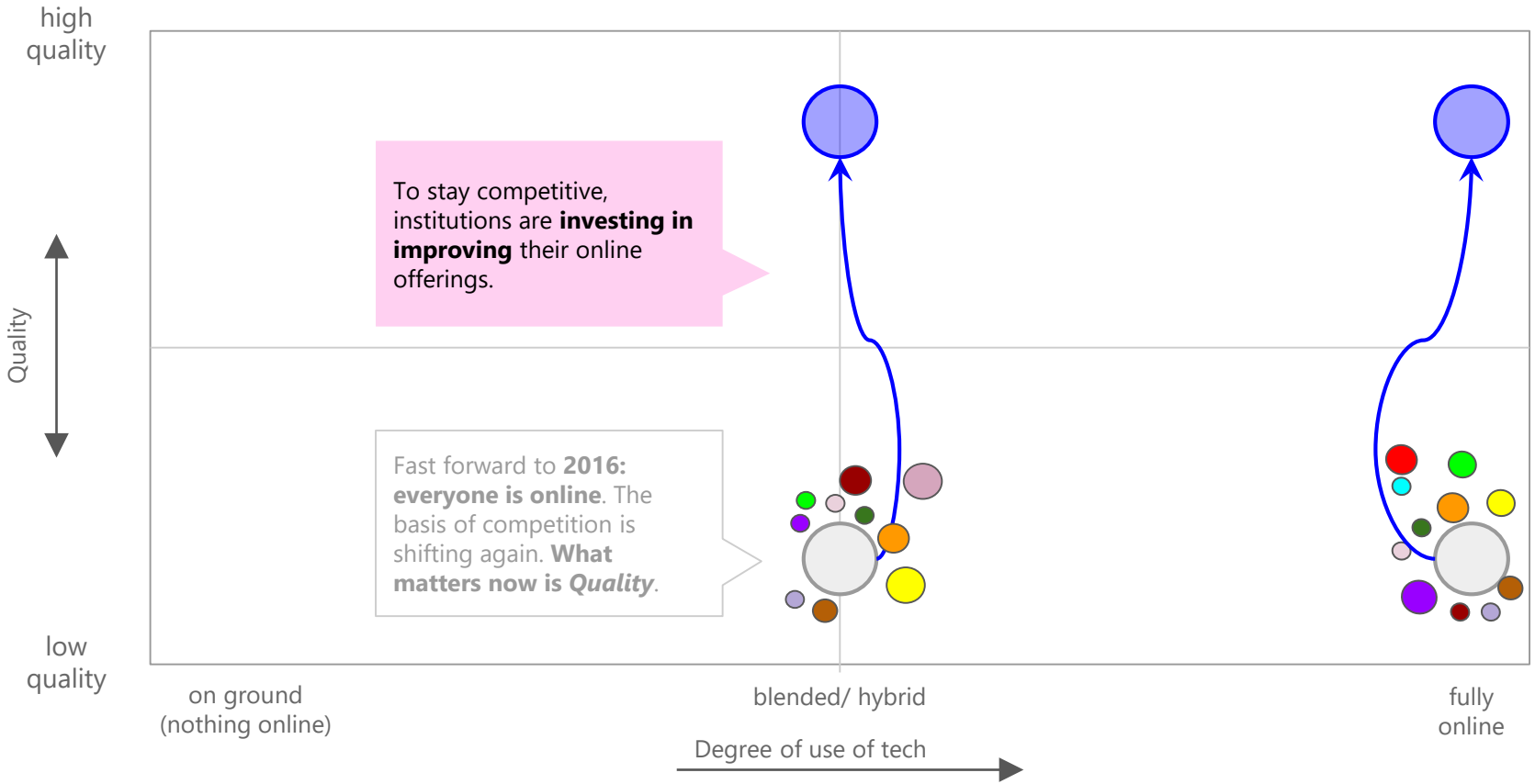

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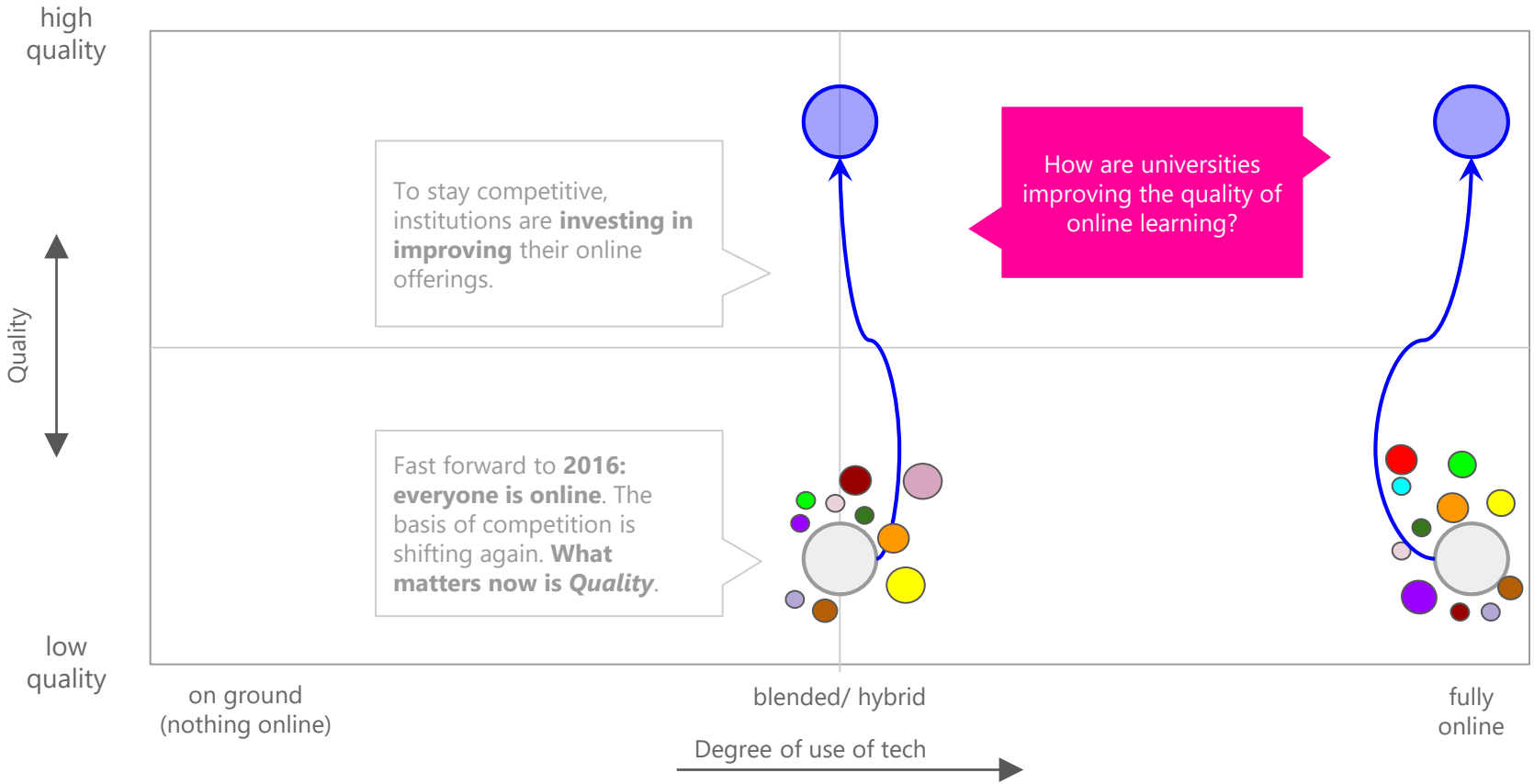


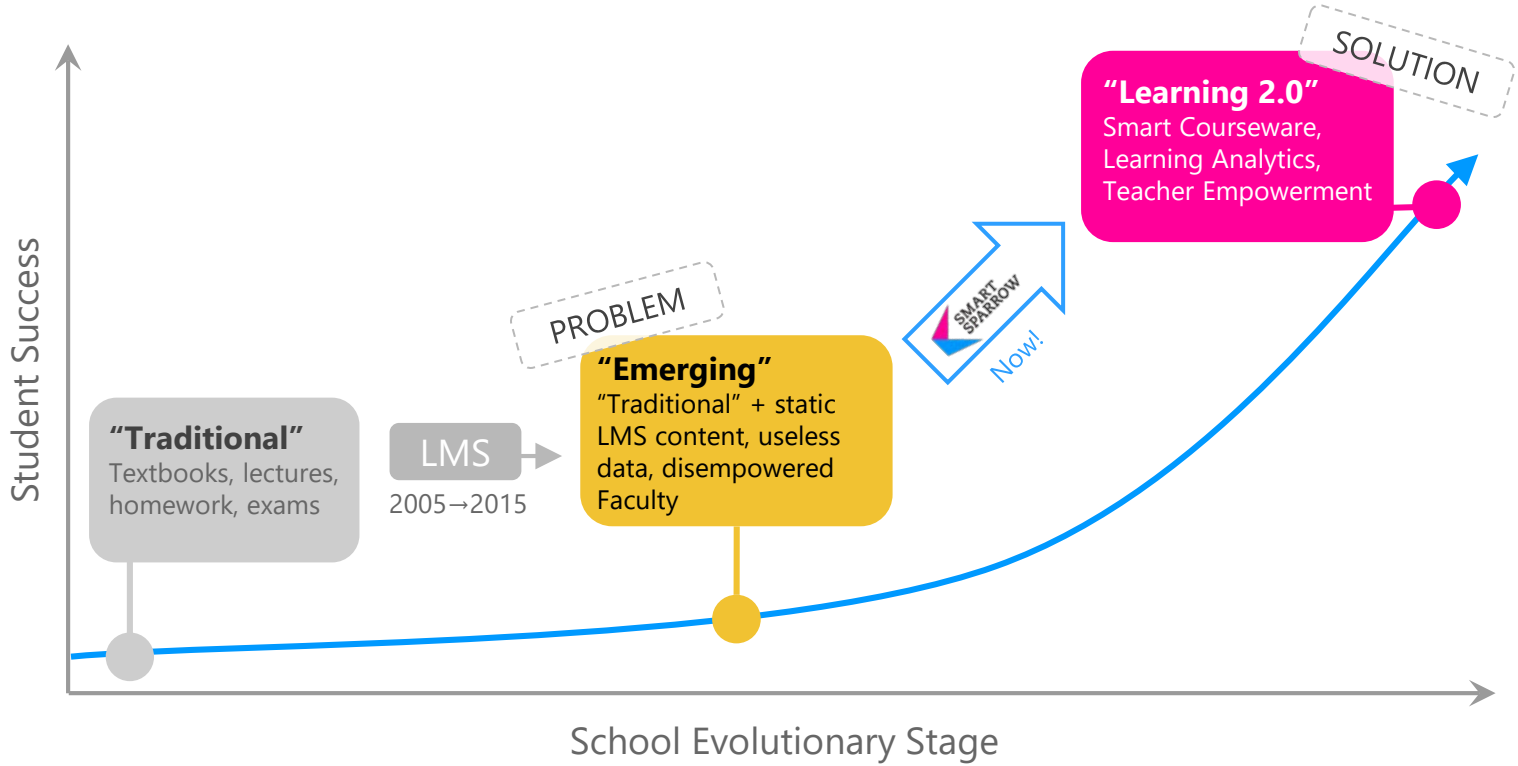
Education is Changing

this is where we see everyone going

	FROM	TO
What's a course?	Lectures + Homework + Exam	Blended, Flipped, Fully Online, Nano Degrees, Competency-Based Learning…
Paradigm	Content, then separate Assessment	Learning experiences integrate authentic assessments
Creation Process	Start offline, then digitize	Digitally-native experiences
Quality	Rushed design phase resulting in poor, static content	Learner-centered design for personalized & engaging experiences
Student Expectations	*"I don't have to come to class because the lectures are online."*	*"Digital learning solutions should be as good as my other apps and games."*
Who's creating?	Instructors/Academics work alone	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

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

Smart Courseware

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**.

Actionable Learning Analytics

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.

Teacher Empowerment

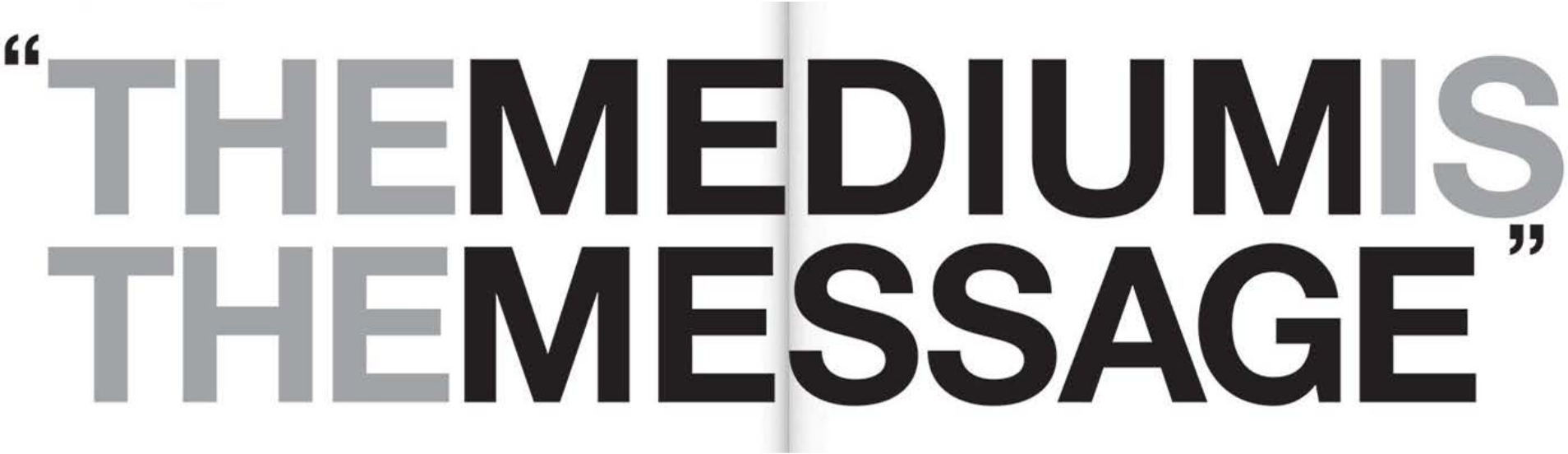
You must empower teachers with **easy-to-use tools for teaching with and analyzing** courseware. Educators should be in the center of the pedagogical process, and should feel empowered to improve their practice.

Powered By SMART SPARROW

Designing for Digital

creating quality courseware and how the paradigm is shifting

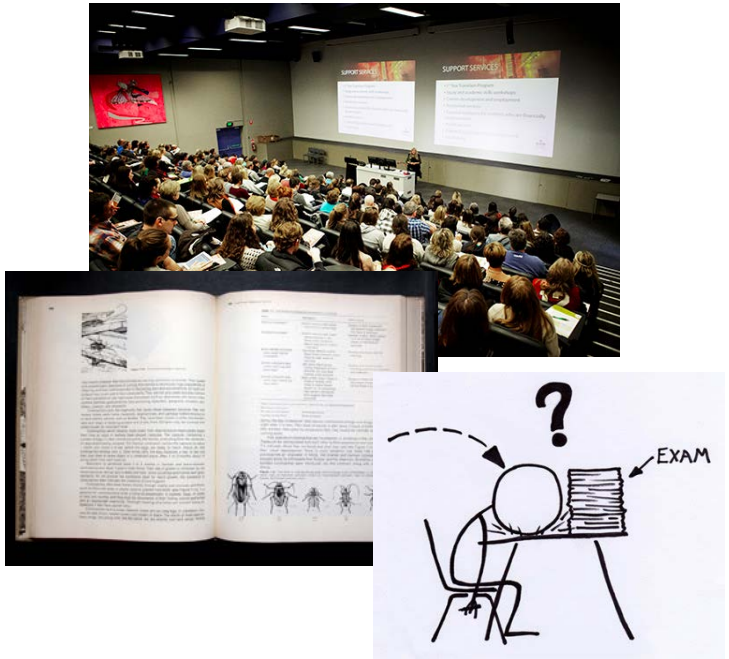
We've been considering, "What is our message?"
and we realized that...



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

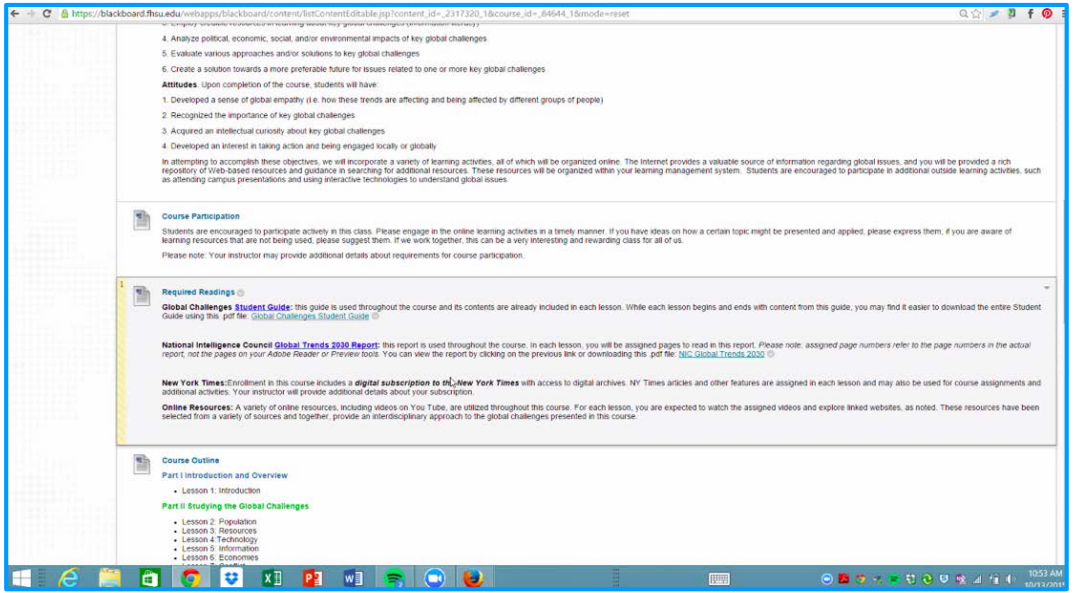
Consider this course that "has it all".

- ✓ 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!

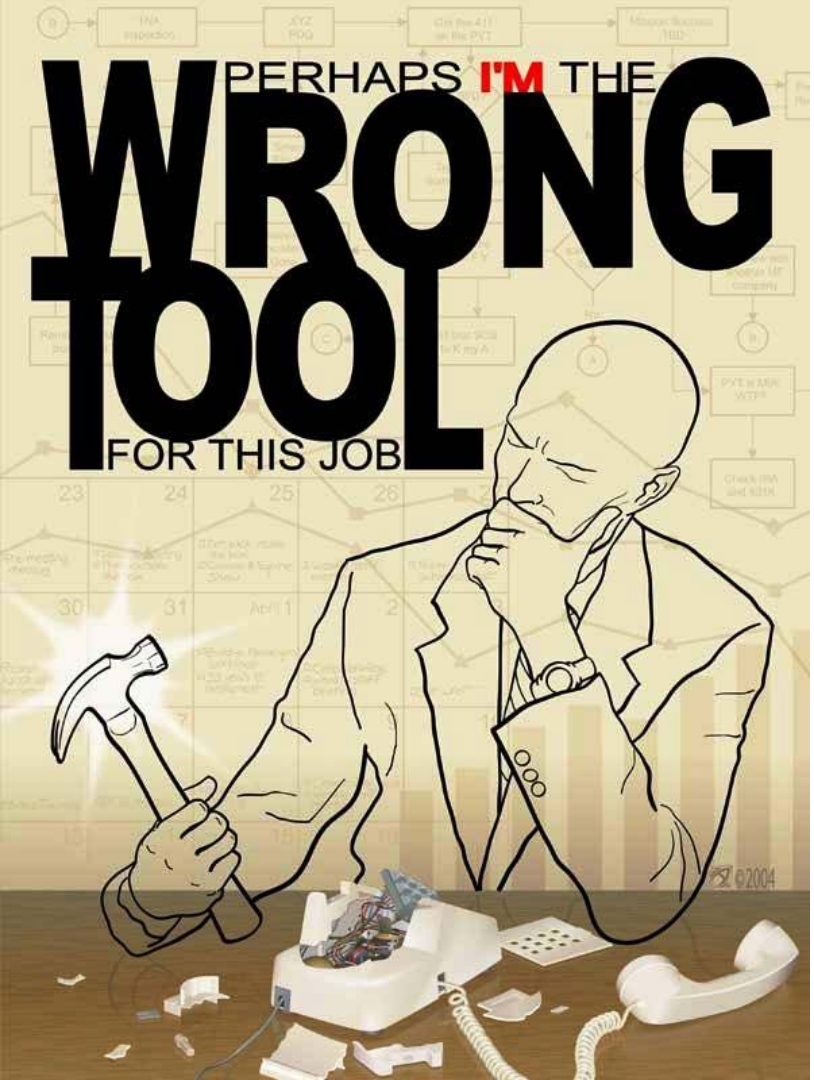
And yet… students were unmotivated and performed miserably. **What happened here?**

- ✗ 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.

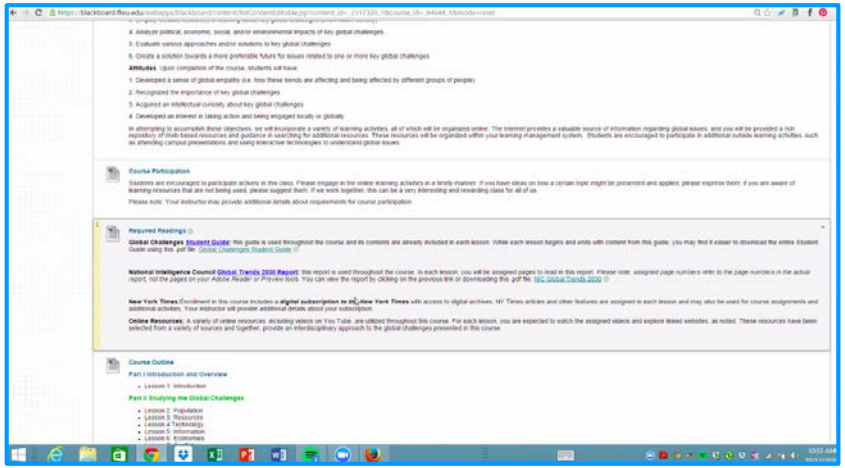



"The tool in the hand
of the artist guides the art"



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

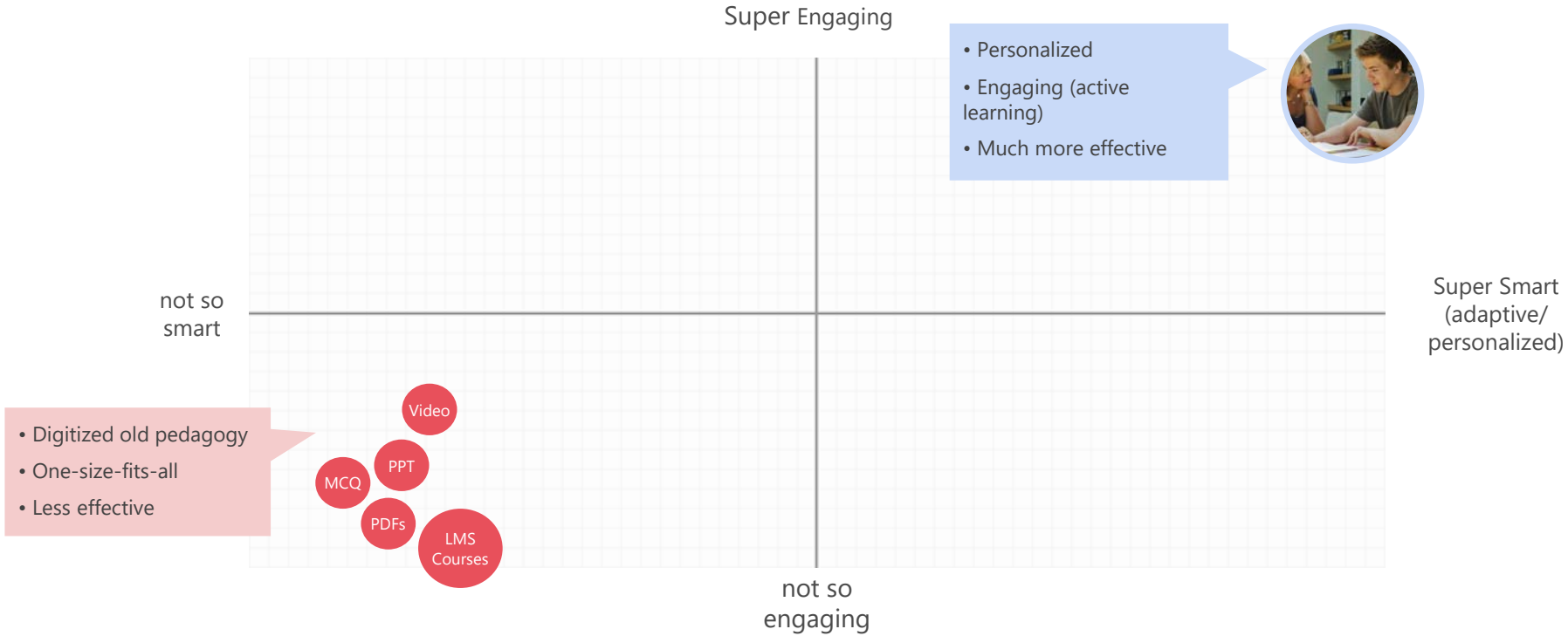
PIXAR

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



We already know.

We already know.

But it doesn’t scale.

So, how do you achieve high-quality learning design at scale?

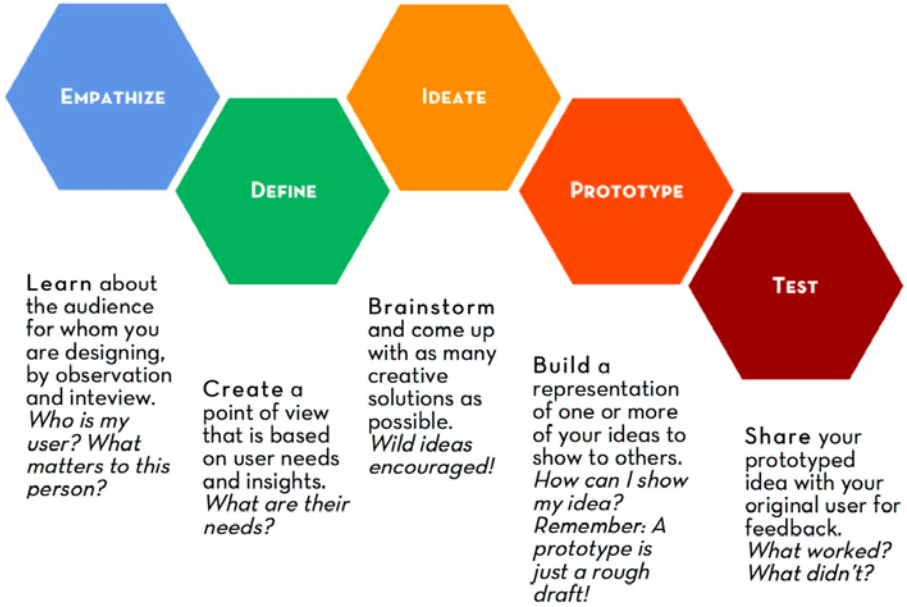
So, how do you achieve high-quality learning design at scale?

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

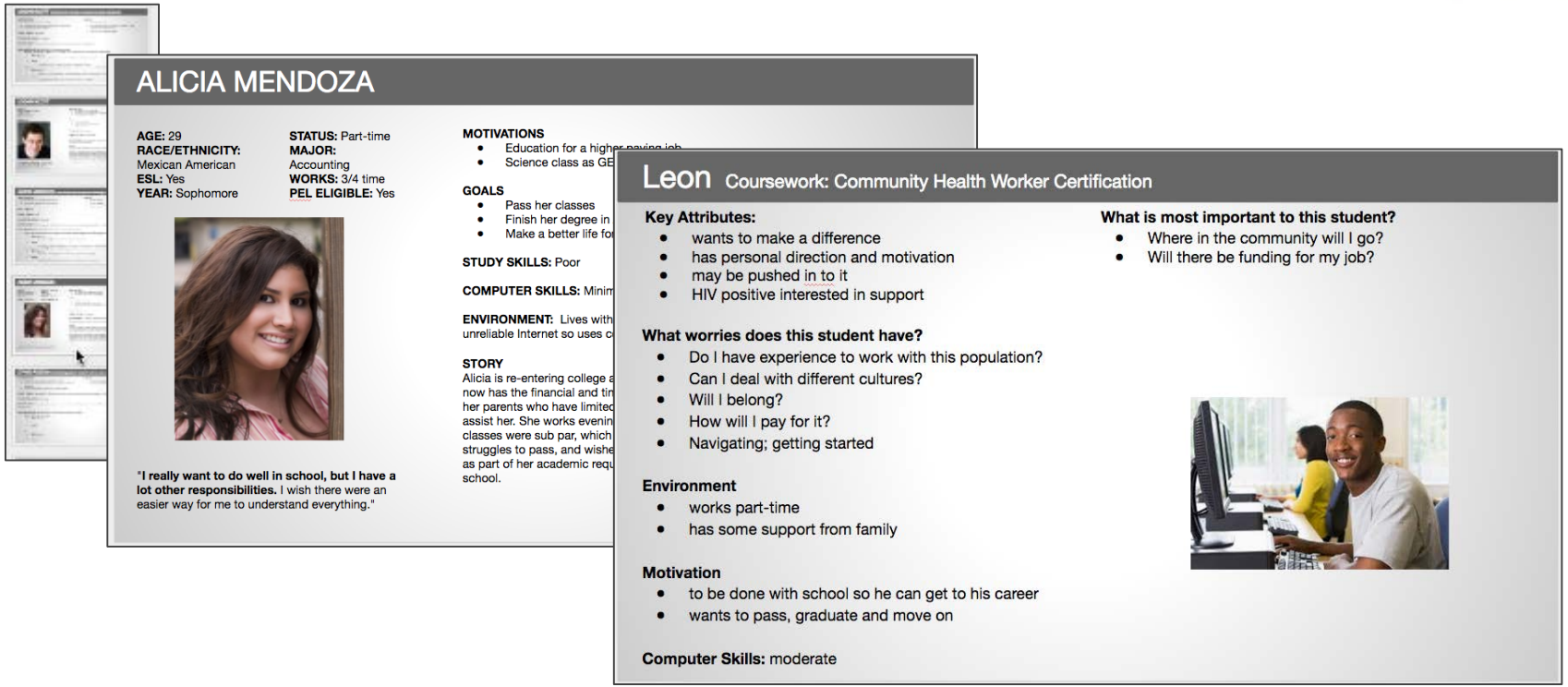
- Methodology
- Process
- Repeatable (Scalable!)
- Trainable
- Documentable



Start with Empathy

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

EMPATHIZE



ALICIA MENDOZA

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

STATUS: Part-time
MAJOR: Accounting
WORKS: 3/4 time
PEL ELIGIBLE: Yes

MOTIVATIONS
- Education for a higher paying job
- Science class as GE

GOALS
- Pass her classes
- Finish her degree in
- Make a better life fo

STUDY SKILLS: Poor

COMPUTER SKILLS: Minim

ENVIRONMENT: Lives with unreliable Internet so uses c

STORY
Alicia is re-entering college a now has the financial and tin her parents who have limited assist her. She works evenin classes were sub par, which struggles to pass, and wishe as part of her academic requ school.

"**I really want to do well in school, but I have a lot other responsibilities.** I wish there were 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 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

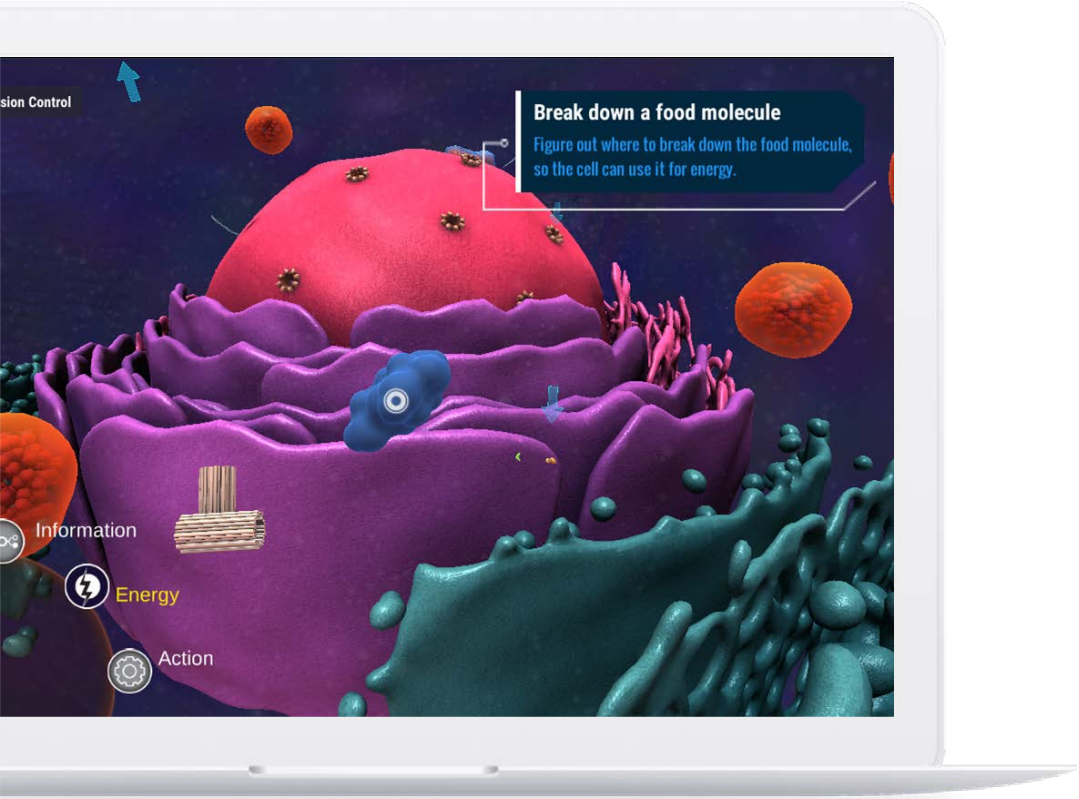
What is most important to this student?
- Where in the community will I go?
- Will there be funding for my job?

Exemplary Learning Design

examples of what Smart Sparrow clients are doing

biobeyond *inspark*

Science / Biology



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

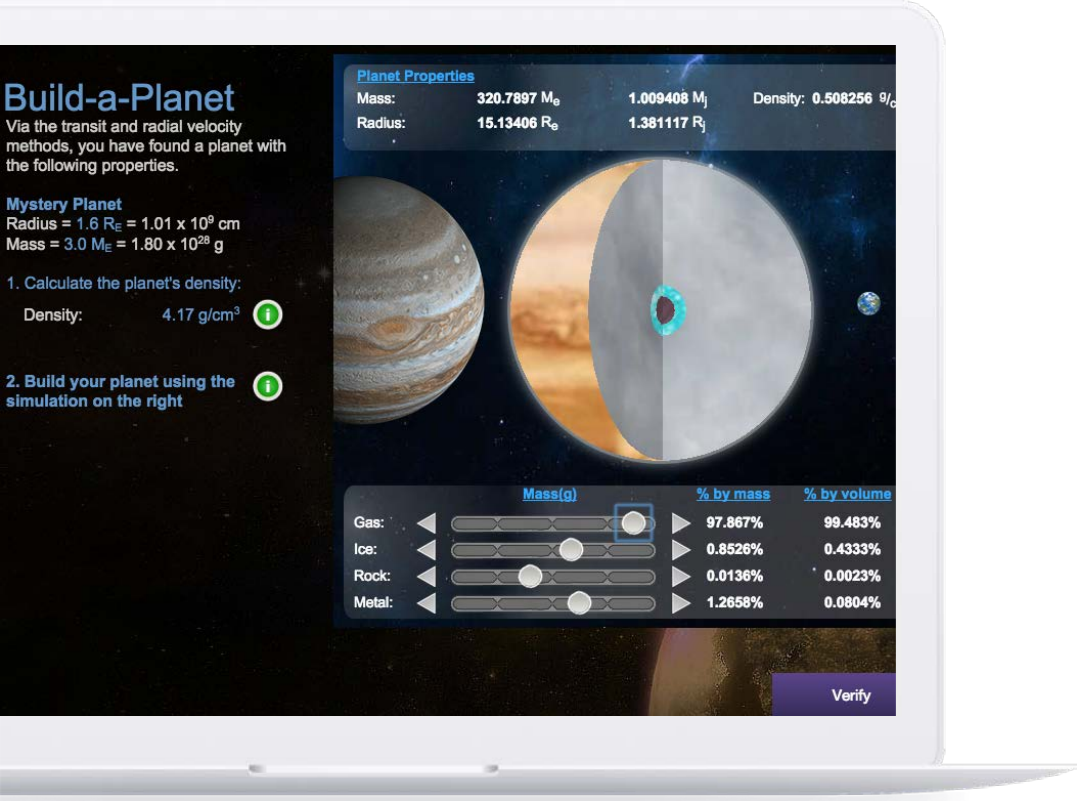
The fully-online BioBeyond course motivates students to explore the beauty and mysteries in biology with awe-inspiring graphics, immersive projects and virtual field trips, and engaging questions that baffle even real-world scientists.

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.

HABWORLDS ASU

Science / Astrobiology



Challenge: How do you teach online science well?

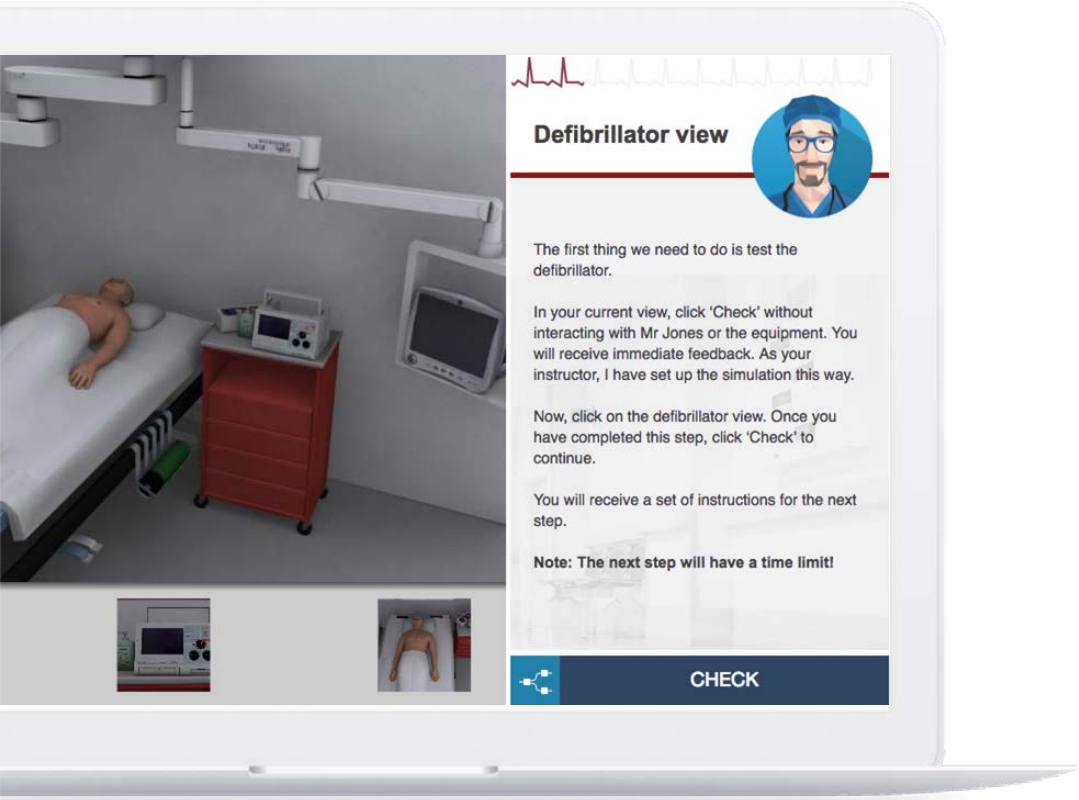
Science is often siloed into disciplines. Lecture→Lab courses are boring. LMS-built courses don't provide a great learning experience.

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



Healthcare / Nursing

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

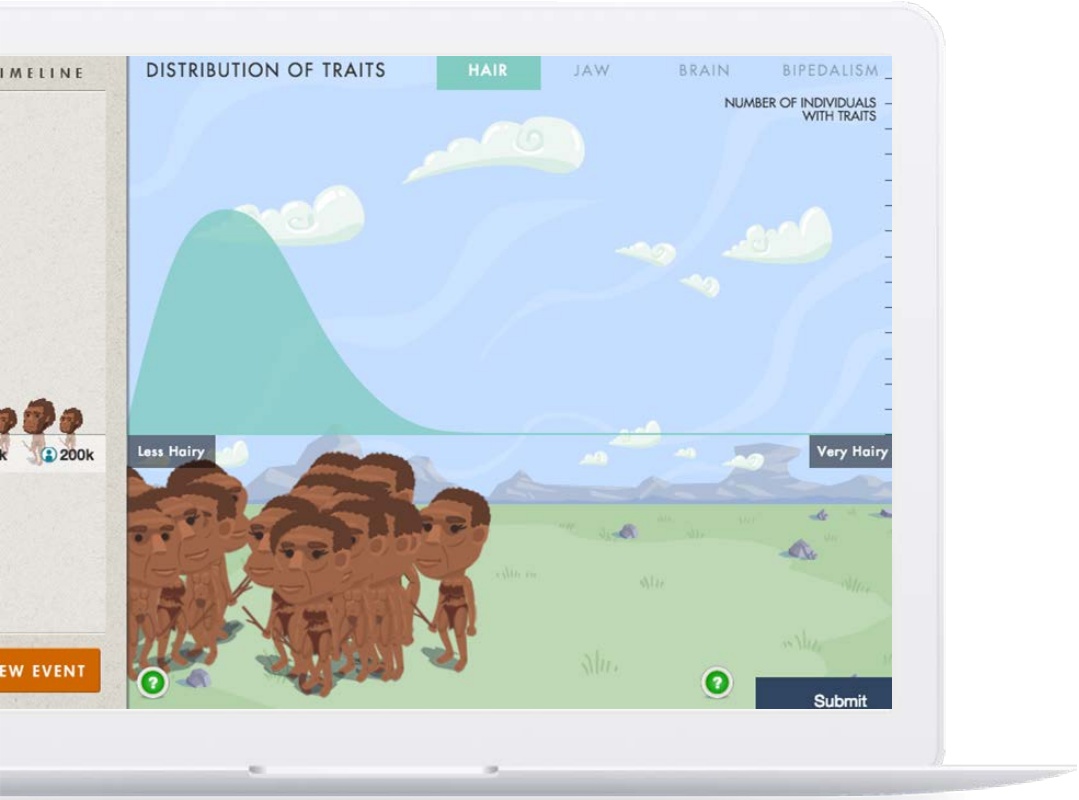
In a visually-rich simulation, nurses go through the real step-by-step process required to use a defibrillator, receiving educational feedback when mistakes are made. Analytics show instructors who is doing well and who keeps missing important steps.

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.

Open Universities AUSTRALIA

Social Sciences / Anthropology



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?

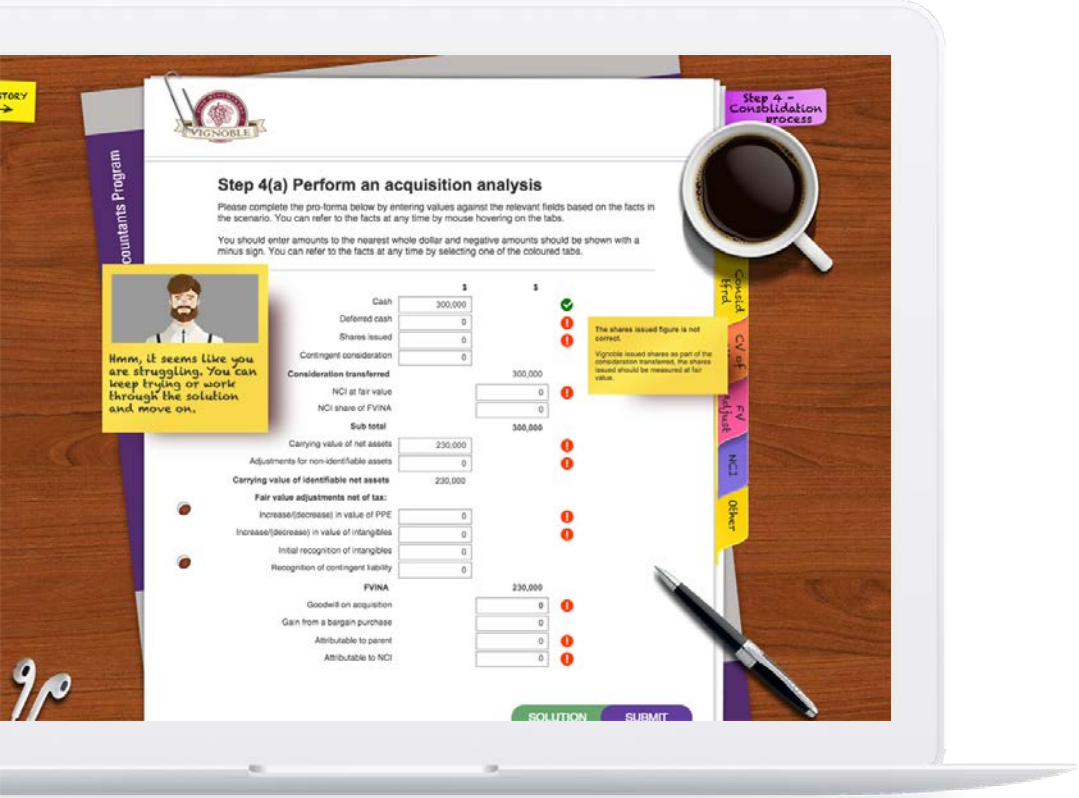
Solution: Teach using learning-by-doing activities

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.

CHARTERED ACCOUNTANTS
AUSTRALIA + NEW ZEALAND



Finance / Accounting

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.

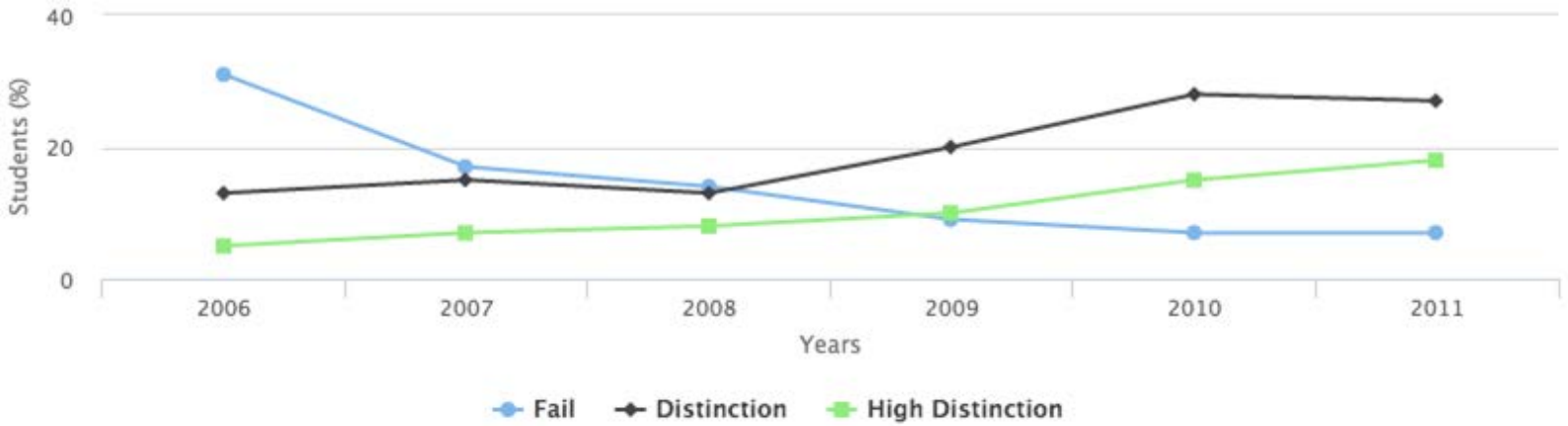
Solution: In-depth learner analytics

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.

Decreasing Failure Rates



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