On-demand Disposable Learning and the 4th Industrial Revolution

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What does OER mean when learning activities go way beyond printable materials?
How do you incorporate ed tech innovations in future OERs?
How do you increase digital footprints in OER learning environments?

Today’s Exercise

is the New

Emerging Paradigm, Renewed Perspective, Practice
Traditional, Outdated Concept, Behavior

Sitting is the New Smoking

“The illiterate of the 21st Century are not those who cannot read and write but those who cannot learn, unlearn and relearn.”

— Alvin Toffler, Powershift: Knowledge, Wealth, and Power at the Edge of the 21st Century
Life expectancy at birth in 2010 and 2030

Must Re-learn and Re-learn and Re-learn......for very long...


The world of work is changing rapidly

5X

Skills needed in the workforce have changed.

Technological advancement rate always exceeds human perception and behavior change rate...

“THE WORLD IS CHANGING VERY FAST. BIG WILL NOT BEAT SMALL ANYMORE. IT WILL BE THE FAST BEATING THE SLOW.”

RUPERT MURDOCH

Who are “the fast movers” in the private sector?
Investment in New Educational Models Continues to Accelerate

$3 B

Online Education, Adaptive Learning, MOOCs, Smart Games

Predictive Analytics

MAKING THE MOST OF THE WORLD'S LEARNING DATA

Education Industry is the New Wild Wild West

The Increasing Shortage of Tech workers.

What used to be a privilege for a small group of elite learners has become a disposable learning resource for all.
Lifelong Learning is the New Privilege for All

Live as if you were to die tomorrow. Learn as if you were to live forever.

-Mahatma Gandhi
How new collar jobs will be formed?
A new farmer who can do farming much better

Meet Jill Watson: Georgia Tech’s first AI teaching assistant

Uber’s self-driving truck makes its first delivery: 40,000 beers
Who are the new lifelong learners in 10 years?
Maker’s Space is the New School of the Future

Designer is the New Student of the Future
Creation to Production

Multidisciplinary Real-world Problem Solving

Digital Footprints – Evidence of Learning Activities

IoT – Devices and embedded sensors generating data in learning environments

Real-time Assessment

Stanford Online

Designing a New Learning Environment

The Course

What constitutes learning in the 21st century? Should reading, watching, memorizing be the only way to learn? Or could technologies (used effectively) make learning more interactive and engaging?

20000 student class!
What's not typical in MOOCs

New Media Consortium
Goldman Sachs
NovoEd
Udemy and several education leaders

Sharing is the New Learning

Reach
Share your knowledge with millions of people around the world.

Revenue
Earn money teaching what you know and love.

Passion
Join everyday experts excited about teaching online.

Knowledge Sharing on Udemy

26,000
Experts teaching on Udemy

$45M
Course Sales for top 10 Udemy instructors

$7,000
Average instructor earnings

300+
Instructors have earned $100,000+

6 to 8 weeks
Average time to publish a course

Some Youtubers earned income as high as 15M

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Earn Respect,
Engage Passionately,
Grow by Supporters,
Earn Handsomely

Difference Between MAY and MIGHT

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You are the New Edupreneur

Digital Assistant Engine

Asking critical questions is more important than searching for information

SMILE (Stanford Mobile Inquiry-based Learning Environment)

It’s not that I am so smart, but I stay with the questions much longer.

Every student is engaged

SMILE (Stanford Mobile Inquiry-based Learning Environment)

Developed local evaluation rubrics.

Every student is engaged

S. Korea: Medical University: SMILE
Moving from lecture-centered to student-instruction-centered model.
Developed local evaluation rubric.
No question? Have you really learned anything?
Bridge between MOOCs and Learners in the under-developed regions.

Adhoc local area mobile learning network – content & application server + router + wifi + storage
One button and runs on a battery

$200

$35

4 times faster
4 times more storage
Quad-core CPU
Our system gives statistical analysis on how close each question is to a different type and quality of questions.

Using existing question sets as training data. A few ways to improve the performance of our system:

• Use better and more training data (e.g., accumulating questions everyday. You can help!)
• Enhance our algorithm layers to make our analysis much deeper learning

Alphaz training itself with 30,000 games a day.

A Great Question is the New Innovation

Our brain finds ways to “reduce our mental workload,” and one way is to accept without question...

John Kounios, Drexel University

Habit Loop

Do you want to just go with the flow?
Email your homework to phkim@Stanford.edu

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