K-MOOC: Current Status and Future Prospects

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Topics

- Challenges
- MOOC
- Flipped Learning
- K-MOOC
  - Current Status
  - Future Prospects
AlphaGo Shock in March 2016
The 21st Century Students
Who gets a “A+” in a class?
"Knowledge isn’t power until it is applied."

~ Dale Carnegie
Bloom’s Taxonomy

- Remember
- Understand
- Apply
- Analyze
- Evaluate
- Create

Higher Order Thinking
Source: Federal Reserve Bank of New York Consumer Credit Panel / Equifax.
Note: HELOC is home equity line of credit.
Ehwa Woman’s U’s Dilema

Source: http://www.sisapress.com/images/common/imgview_guide.png
Twin Challenges

Cost down

- Outcry for half-priced tuitions
- Frozen tuitions for 5 years

Quality up

- Creative talents: Problem-solving, Communications, Teamwork, etc
Solution?

New Kind of e-Learning

Creative talents

MOOC

Cost Down

Flipped Learning
What is MOOC?

- Open competition
- Proven top quality

Source: Wikipedia.com
Online Learning vs. MOOC

Pros

Accessibility
Affordability

Cons

Quality
How does MOOC improve quality?

- Sharable
- Modular
- Comparable
Growth of MOOCs

### K-MOOC: Strategic Roadmap

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018 -</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategy</strong></td>
<td>Construction and pilot operation of the platform (Development of Korean model)</td>
<td>Settling-in of Korean model</td>
<td>Distribution of Korean model</td>
<td></td>
</tr>
<tr>
<td><strong>Strategic Directions</strong></td>
<td>Building a brand and raising awareness</td>
<td>Development of service standards</td>
<td>Promotion of services</td>
<td>Globalization (open and autonomous participation)</td>
</tr>
<tr>
<td><strong>Number of Lectures (accumulated)</strong></td>
<td>27</td>
<td>100</td>
<td>200</td>
<td>500</td>
</tr>
<tr>
<td><strong>Content Development</strong></td>
<td>Content Diversification</td>
<td>Content Standardization</td>
<td>Content Globalization</td>
<td></td>
</tr>
<tr>
<td><strong>Creation of additional services</strong></td>
<td>Policy Research (development of additional service models, cooperation plans between relevant ministries and agencies)</td>
<td>Pilot operation of additional services (public institutions, educational ODA, etc.)</td>
<td>Application of additional service models</td>
<td></td>
</tr>
</tbody>
</table>

K-MOOC Outcomes: 2015 Learner Survey Results

By Age Group

- Teen: 8%
- 20s: 29%
- 30s: 20%
- 40s: 9%
- 50s: 15%
- 60 and above: 19%

Source: User Satisfaction Survey Results, Internal Data, NILE (2016)
K-MOOC Outcomes: 2015 Learner Survey Results

By Educational Attainment Level

- High School and under: 23%
- In College: 14%
- AA: 9%
- BA: 15%
- MA: 4%
- PhD: 35%

Source: User Satisfaction Survey Results, Internal Data, NILE (2016)
K-MOOC Outcomes: 2015 Learner Survey Results

What was your purpose in taking K-MOOC course?

- 66.8% Intellectual Curiosity
- 16% Major-related Basic/Intensive Learning
- 9% Enhancing Vocational Skills
- 5.2% Seeking Employment/Career Path Exploration
- 2.2% Acquiring Certificate

Source: User Satisfaction Survey Results, Internal Data, NILE (2016)
## K-MOOC Outcomes: 2015 Learner Survey Results

### Future Expectations

<table>
<thead>
<tr>
<th>Expectation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wide variety of course contents</td>
<td>70.3%</td>
</tr>
<tr>
<td>User-friendly platform</td>
<td>13.3%</td>
</tr>
<tr>
<td>Useful Information (on courses, etc)</td>
<td>9.7%</td>
</tr>
<tr>
<td>Service consultation/guidance</td>
<td>3.9%</td>
</tr>
<tr>
<td>Downloadable video contents/Internet speed</td>
<td>0.3%</td>
</tr>
<tr>
<td>None/Unknown</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

(Unit: %)

Source: User Satisfaction Survey Results, Internal Data, NILE (2016)
Traditional Learning

- Remember
- Understand
- Apply
- Analyze
- Evaluate
- Create

In-class

After-class
Flipped Learning

- Remember
- Understand
- Apply
- Analyze
- Evaluate
- Create

In-class
Pre-class

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Flipped Learning

**Pro**

- Active learning

**Cons**

- Pre-class contents preparation
- Pre-class requirement
MOOC

Pros
- Automation for self-study
- Instant feedback
- High quality

Cons
- Passive learning

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MOOC & Flipped Learning

- Remember
- Understand
- Apply
- Analyze
- Evaluate
- Create

Flipped Learning

MOOC
MOOC & Flipped Learning

MOOCs

1. MOOCs
2. Nano-/Microdegree
3. College credit
4. College degree

Open education

K-MOOC?

Private education

MOOCs Providers

Courses

Colleges/Universities

5. SPOCs
6. MOOC-based Flipped Learning

7. MOOC + FL
STARTING POINTS FOR MIT FACULTY

Residential MITx

Use digital tools to enhance the learning experience for students on campus. Utilizing the Residential MITx platform in your on-campus class is a great way to get your feet wet with digital learning. Create online problem sets for your students, shoot some videos to complement your in-class lectures, or even redesign your entire course as a flipped classroom. Whatever you produce can later be repurposed in a massive open online course (MOOC), or shared on MIT OpenCourseWare (OCW).

MIT OpenCourseWare (OCW)

Publish materials from an existing residential course on OCW under an open license. This is the least labor-intensive option and often reaches the broadest audience. OCW course materials are a solid foundation for exploring other digital learning projects. For instance, some faculty have reused video lectures from their OCW courses in later MITx efforts.

MITx

Create a massive open online course (MOOC) on the edX platform and offer it to learners everywhere, for free. MITx courses give you global reach and the ability to impact thousands of learners. The MOOC you develop can be used later for residential teaching, or you can conduct both a MOOC and a classroom course simultaneously.
Reasons for the Residential MITx

1. Offer students rapid feedback
2. Provide adaptive hinting
3. Augment learning by providing simulations and visualizations
4. Foster students’ active reading/discussion
5. Enable flipped learning
6. Experiment with mastery learning
7. Provide flexibility in course delivery
# New Experiments in Spring 2016

<table>
<thead>
<tr>
<th>Course</th>
<th>Traditional</th>
<th>Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business IT</td>
<td>Lecture</td>
<td>OER-based (0.4:0.6)</td>
</tr>
<tr>
<td>JAVA Programming</td>
<td>Lecture</td>
<td>MOOC-based (0.7:0.3)</td>
</tr>
<tr>
<td>R Programming</td>
<td>Lecture (Summer)</td>
<td>MOOC-based (0.9:0.1)</td>
</tr>
<tr>
<td>Special topic I</td>
<td>Not available</td>
<td>MOOC-based (0.95:0.05)</td>
</tr>
<tr>
<td>Special topic II</td>
<td>Not available</td>
<td>MOOC-based (0.95:0.05)</td>
</tr>
<tr>
<td>Total 5</td>
<td></td>
<td>3.9:1.1 = 5</td>
</tr>
</tbody>
</table>
Opportunity?

Threat?
Q&A

Thank You!