Using Active Learning Technology to Prepare for Disasters and Contingencies in Chulalongkorn University

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Outline

- Chulalongkorn University
- Teaching & Learning Process
- Use of Echo360 in Normal and Crisis Situation
- What’s next?
Chulalongkorn University is Thailand’s first institution of higher education founded nearly a century ago.

As a national intellectual center, the university produces the finest quality graduates with a high level of knowledge and skills in the arts and sciences that they can use to contribute to society.
• Thailand’s oldest and one of the country’s most prestigious universities, established on March 26, 1917.

• Chualongkorn University consists of 19 faculties, 3 schools, 3 colleges and 6 institutes.

• The university has a total of 38,180 students. The undergraduate student body numbers 25,154.

• Currently, there are 9,958 students studying for their Master degree and 2,385 studying for their Doctorate.

• Faculty and staff, including government officials and university personnel is numbering at 8,093.
Chulalongkorn University Desired Characteristics of Graduates 2010
"Chulalongkorn University Graduates are Valuable Global Citizens"

- Community-mindedness
- Ethics
- Skills
- Well-being
- Leadership
- Maintaining Thainess in the globalized world

- Knowledge
- Ability to think
- Lifelong learning
- Inquisitiveness
- Knowing how to learn

- Morals and ethics
- Professional ethics

- Professional skills
- Communication skills
- Information Technology skills
- Mathematical and statistical skills
- Management skills

- Critical thinking
- Creative thinking
- Problem solving
Learning Process

- **Teach Less, Learn More**
- **21st Century Skills**
  (Rethinking How Students Learn)

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Student → Active Learning
Instructor → Coaching (facilitator)

ICTs ........ Constructivist Approach

Move
Interactive Learning

• Student : Self learning
• Teacher : Guided instruction
• Small group discussions for problem solving
• Encourages teachers to create teaching media in various forms, such as video clip for self learning
## Education 3.0

<table>
<thead>
<tr>
<th>Meaning</th>
<th>Socially constructed and contextually reinvented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology</td>
<td>Everywhere, ambient, digital universe</td>
</tr>
<tr>
<td>Teaching</td>
<td>Teacher to student, student to student, student to teacher, people-technology-people (co-constructivism)</td>
</tr>
<tr>
<td>Schools</td>
<td>Everywhere (thoroughly infused into society: workplaces, etc.)</td>
</tr>
<tr>
<td>Parents view schools</td>
<td>A place for them to learn, too</td>
</tr>
<tr>
<td>Teacher</td>
<td>Everybody, everywhere</td>
</tr>
<tr>
<td>Hardware and software</td>
<td>Are available at low cost and are used <em>purposively</em></td>
</tr>
</tbody>
</table>
ICT as Technology-driven Learning

• Active Learning

• Student-centric Learning, using computer as a main media

• Utilize many tools such as Echo 360, Clicker to facilitate learning
Normal Situation

• Record lecture materials for student self-review or for student’s absence
• Utilize 10 minute clips to support the learning processes
• Currently, there are 6 sets of Echo 360
  Complicated Content : Basic Science (Math, Physic, Chemistry)
  Large Class : General Education
# Data of Echo 360 usage by each faculty

## Academic Year 2012

<table>
<thead>
<tr>
<th>No</th>
<th>Faculty</th>
<th>2nd Semester (24 Oct, 2012 - 9 Mar, 2013)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Subject</td>
</tr>
<tr>
<td>1</td>
<td>Learning Innovation Center (No.1)</td>
<td>7+15</td>
</tr>
<tr>
<td>2</td>
<td>Learning Innovation Center (No.2)</td>
<td>6+15</td>
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<tr>
<td>3</td>
<td>Faculty of Commerce and Accountancy</td>
<td>6+12</td>
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<tr>
<td>4</td>
<td>Faculty of Nursing</td>
<td>5+7</td>
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<tr>
<td>5</td>
<td>Faculty of Engineering (No.1)</td>
<td>3+1</td>
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<tr>
<td>6</td>
<td>Faculty of Engineering (No.2)</td>
<td>3+2</td>
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<tr>
<td>7</td>
<td>Office of Commission on Agricultural Resource Education (OCARE)</td>
<td>7+3</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
<td>37+55</td>
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</table>
### Data of Echo 360 usage, Academic Year 2012
February, 2013

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Students</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Faculty of Science</td>
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<tr>
<td></td>
<td>2302272 ORG CHEM II</td>
<td>379</td>
<td>1,573</td>
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<tr>
<td></td>
<td>2302112 GEN CHEM II</td>
<td>636</td>
<td>1,566</td>
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<tr>
<td></td>
<td>2301118 Calculus II</td>
<td>99</td>
<td>848</td>
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<tr>
<td></td>
<td>2304108 GEN PHYS II</td>
<td>223</td>
<td>309</td>
</tr>
<tr>
<td>2</td>
<td>Faculty of Engineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2103231 MECH OF MAT I</td>
<td>293</td>
<td>915</td>
</tr>
<tr>
<td></td>
<td>2102202 ELECT ENG MATH II</td>
<td>40</td>
<td>123</td>
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<tr>
<td></td>
<td>2105474 TRANS PHENOMENA</td>
<td>30</td>
<td>122</td>
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<td>3</td>
<td>Faculty of Veterinary Science</td>
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<td>3141207 VET ANAT II</td>
<td>100</td>
<td>538</td>
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<td>4</td>
<td>Office of Commission on Agricultural Resource Education</td>
<td></td>
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<tr>
<td></td>
<td>4000201 PRIN FOOD ANL PROD</td>
<td>47</td>
<td>211</td>
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<tr>
<td></td>
<td>4000202 FARM MGT I</td>
<td>47</td>
<td>154</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>2,454</strong></td>
<td><strong>6,610</strong></td>
</tr>
</tbody>
</table>
Chula U : Echo 360

Crisis Situation

Chula has experienced political crisis in 2010 and flooding in 2011. This has impacted some faculty and students who are unable to attend class. Echo 360 provide benefit to these students immensely to view online lectures. Faculty members can also lecture at homes using Echo personal capture and keep it as archive.
What’s next? : 2013

- Expand form 6 to 20 sets of Echo 360
- Distribute to every faculty. The requirement is usage time not less than 20 hrs./month or 3-4 subject/semester.
- Promote and support professors to create brief video clip, 2-3 clip per subject.
Learning Management System (LMS)

2013
- Online Courseware
- Upgrade for Social Media
- Launch Blackboard Mobile
- Create User Group

2014
- Open Courseware
- Increase Course Online & Usage

2015
- Expand to Major Faculty / All
- Integrated Smart Classroom

2016 ->
- Blackboard Outcome & Analytics
- New Learning Space & Innovation with Faculty
Thank you