Asia-Pacific Regional Seminar on MOOCs for Higher Education

Professor David Gibson
Director, Learning Futures
UNESCO Chair of Data Science in Higher Education Learning & Teaching

A global university
Perth | Kalgoorlie | Dubai | Malaysia | Singapore
Approx. 58,000 students (38,000 EFTSL); 30% of students are international

9th largest university in Australia

Approx. 4,240 equivalent full-time staff; largest single-site employer in WA

Destination of choice for WA university applicants with 51% domestic market share

Major campuses in Perth, Kalgoorlie, Singapore, Mauritius and Malaysia
MIT - World Education Lab

A deep partnership with MIT in Learning Sciences and Learning Analytics research opportunity for Education & Innovation Bootcamps, Week long intensives, Seminars, Newsletters, Research
Curtin Converged: Teaching and Learning Framework

- **F2F - FLIPPED CLASSROOM**
  Engaging Face-to-face with flipped learning elements

- **MOOCs & OER**
  Scalability with MOOCs and the use of open educational resources (OER) to bring education to the world

- **DISTRIBUTED LEARNING**
  Global classrooms with distributed learning

- **ENRICED ONLINE**
  Flexibility with enriched, digitally delivered learning experiences
Sustainable Development Goal 4 and Targets

A. Effective Learning Environments
B. Scholarships
C. Teachers and Educators

1. Universal Primary
2. Early Childhood
3. Access to Technical, Vocational and Higher Education
4. Relevant Work Skills
5. Gender Equality
6. Universal Youth Literacy
7. Education for Sustainable Development
Learning for Tomorrow: Progress Since 2012

- 200 UG Course transformation – Flagship programs
- Faculty Learning Engagement Teams - Flipped Classroom 87% of courses
- Professional Learning Essentials - Building staff capabilities
- Work-integrated learning 20,054 and Leadership 20,800 students by 2016
- 90 new collaborative learning spaces
- edX consortium membership
- Digital Learning at Curtin Strategy
- UNESCO Chair in Data Science in Higher Education Learning and Teaching
Curtin Learning & Teaching: Current Projects

- Digital Learning
  - Multiplatform + Converged
  - MOOCs into Units and Courses
  - Stackable Credentials
  - MicroMasters

- Challenge Based Learning
  - Individualized + Personalized
  - CISCO WebEx Teams for team learning
  - Gamified + Automated Assessment
Curtin Learning & Teaching: Current Projects

- Smart Learning Infrastructure
  - CISCO Learning Spaces Innovations
  - Elsie – Mobile study assistant
  - Digital Curriculum Management - AKARI
  - Assessment Ecosystem
  - Learning Analytics Capacity

- Content Innovations
  - CISCO Cyber Range – Staff training & tools
  - Entrepreneurship Credentials and Articulations
# From MOOCS to Units and Courses

<table>
<thead>
<tr>
<th>CurtinX</th>
<th>Curtin OUA</th>
<th>Curtin Prime*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mode</strong></td>
<td>Online</td>
<td>Online and Converged</td>
</tr>
<tr>
<td><strong>Learning platform</strong></td>
<td>edX</td>
<td>Blackboard</td>
</tr>
<tr>
<td><strong>Credentials</strong></td>
<td>Micro credential</td>
<td>Nationally accredited courses</td>
</tr>
<tr>
<td></td>
<td>Honor Certificate (free)</td>
<td>Fee based</td>
</tr>
<tr>
<td></td>
<td>Verified Certificate (paid)</td>
<td></td>
</tr>
<tr>
<td><strong>Key markets</strong></td>
<td>Global</td>
<td>Australia (especially Eastern States)</td>
</tr>
<tr>
<td><strong>Key offerings</strong></td>
<td>MOOCs</td>
<td>Courses</td>
</tr>
<tr>
<td></td>
<td>XSeries MOOCs</td>
<td>Units</td>
</tr>
<tr>
<td></td>
<td>Professional Learning Pathways</td>
<td></td>
</tr>
<tr>
<td><strong>Scale</strong></td>
<td>Unlimited</td>
<td>Limited</td>
</tr>
<tr>
<td><strong>Entry requirements</strong></td>
<td>None</td>
<td>UG – None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PG – Curtin authenticated qualifications</td>
</tr>
<tr>
<td><strong>Study options</strong></td>
<td>Self-paced</td>
<td>Fixed study periods and sessions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Student/Teacher ratio</strong></td>
<td>1000:1</td>
<td>50:1</td>
</tr>
<tr>
<td></td>
<td>Self-paced</td>
<td>Moderated</td>
</tr>
<tr>
<td></td>
<td>Minimally moderated</td>
<td></td>
</tr>
</tbody>
</table>
>276,287 edX learners – 21 Courses and 29,500 Astronomy – Open2Study
Curtin viewed as a leader and valuable collaborator
3 Micromasters
Tech Mahindra offering IoT MM to 117,000 employees and interview to others
Global Partnerships
  • Massachusetts Institute of Technology (MIT)
  • University of California, Berkeley
  • University of British Columbia (UBC)
  • University California San Diego (UCSD)
  • Rochester Institute of Technology (RIT)
Stackable Credentials

Free MOOCs
- No certificate provided
- Showcase achievements
- Quality design and content
- Start of monetisation strategy

Verified Certificate MOOCs
- In-depth learning
- Popular amongst learners
- Further monetisation strategy

XSeries Program Certificate
- Executive Education
- Corporate demand
- Further monetisation

Professional Education
- Affordable and accessible paths
- Credential and credits recognised
- Inverted admissions
- Further monetisation

Credit-eligible MOOCs
- Credential and credits recognised
- Inverted admissions
- Further monetisation

MicroMasters Credential

Acknowledgement: edX CEO Webinar June 2016
MicroMasters™ Models

MODEL 1
Curtin University
Curtin MicroMasters credential accepted as 25% CRL towards a Curtin Master degree

MODEL 2
MIT, UC San Diego, Berkeley, UBC
Partner MicroMasters credential accepted as 25% CRL towards a Curtin Master degree

MODEL 3
Curtin University
Curtin MicroMasters credential as an additional admission requirement pathway for a Curtin Master degree

MODEL 4
edX, Blackboard
Curtin MicroMasters credential a requirement for Curtin students and embedded in a Curtin Master degree
Introduction to the Internet of Things

Devices and Sensors

IOT Networks and Protocols

IOT Programming and Big Data

Cybersecurity and Privacy in the IOT

IOT Capstone Project

MicroMasters™ - Internet of Things

Curtin University

cisco

edX

Master of Engineering Science (Electrical Engineering)

14 units x 25 credits + 1 unit x 50 credits = 100 credits towards 400 credit program

Credit unit

Unit

MicroMasters
In the Internet of things
(6 ‘courses’)

Master of Engineering Science (Electrical Engineering)

100 credits towards 400 credit program
Challenge Based Learning Platform

- Curtin UniReady English Challenge
- Curtin Leaders Program Leadership Challenge
- Curtin Careers Careers Illuminate
- Curtin Global Discovery Global Discovery
- Coming Soon Balance of the Planet

Campus Quest

Curtin University
CISCO WebEx Teams + Curtin Challenge
Distributed Learning = Smart Infrastructure + Distance + Innovations

“...I have to travel from Karratha to the classroom which is about 250km. Any other way I would be external and wouldn’t be able to interact as you do with the tutors. So for me it’s just the best ever form of learning that I have had in 20 years.”

(Pilbara Student, 2014)
The Emerging Digital Library

- **Online visits**
  - Projected 3,758,111

- **Physical entries (Robertson)**
  - Projected 2,020,158

- **Loans of Physical Collection (Robertson)**
  - Projected 114,000

Years: 2006 to 2016
DIGITAL STUDENT ENGAGEMENT
Artificial Intelligence in Higher Education

1. Identifying, recruiting and admitting students
2. Attending to the intentions and goals of each student
3. Offering knowledge on demand in authentic settings
4. Supporting learning via dynamic feedback
5. Developing global networks for life-long economic advancement
Thank you

Make tomorrow better.