

# 4 th INDUSTRIAL REVOLUTION IN INDONESIA THROUGH CYBER EDUCATION



Prof. Jang Youn Chō, Ph.D, CPA

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# DATA COLLEGES, INTERNET & MOBILE INDONESIA

**4.504**  
**Colleges**

**93.4 M**  
**Internet user**




**149.2 M**  
**Mobile user**

**31.5 %**  
**GER**

**11 %**  
**WAG**

Sumber: ATSI, APJII, Gudang voucher, Tribunews.com

# FUTURE EDUCATION

<p><b>CAMERA</b></p>	<p><b>FILM CAMERA</b></p>  <p><b>FUJI FILM 1934</b> <b>KODAK (1885 – 2013)</b></p>	<p><b>DIGITAL CAMERA</b></p>  <p><b>CANON 2017 US\$ 41 B</b></p>	<p><b>SMART PHONE</b></p>  <p><b>Apple US\$ 900 B</b> <b>SAMSUNG US\$ 600 B</b></p>
<p><b>UNIVERSITY (Teaching)</b></p>	<p><b>OFFLINE UNIVERSITY</b></p>	<p><b>ONLINE (CYBER) .....?</b> <b>MOOC ( massive open online course) .....?</b></p>	

# Gross Enrollment Ratio

COUNTRY	Gross Enrollment Ratio / High School graduate
Indonesia	31.5 %
Malaysia	37.2 %
Thailand	51.2 %
Singapore	82.7 %
Korea	92.4 %

How to increase the rate from new born to high school Diploma (current 60 %) ?

How to increase the total rate rapidly ?  $60 \% \times 31.5 \% = 19 \%$

# Online Education (Cyber University)

- Korea Leading Country in Cyber Education

- Hanyang Cyber : <http://en.hycu.ac.kr/>

- Cyber university and foreign Studies : <https://w>



- Tuition based on credit hour, 30 % of offline
- Rp. 800.000,- to Rp. 1.000.000,-/ Credit hour
- Graduation rate very high, 70 – 90 %



# The Future of Education, the 4<sup>th</sup> Industrial Revolution: The Dramatic Change of The Teaching Environment and Education

## ❖ AI (Artificial Intelligence)/ Big Data

- Google assistant TV / LG voice command
- IBM ; WATSON, (medical doctor, lawyer)
- AMAZON : ALEXA, AUTO + IT

## ❖ IoT, 3D Printing: Making the class materials easily, changing the classroom environments




## ❖ AR/VR: Making the realistic and interesting teaching contents.

# Since 2012, Mooc started with Combined IT technology and the top university contents

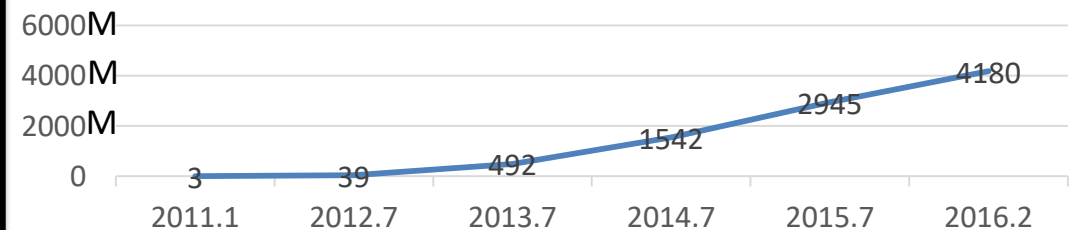
## SUMMARY

- US (Cousera, EDX, UDACITY)
- England (Future Learn)
- France (FUN), Germany (Iversity), China (XuetangX), Japan (Gacco). and Korea (K-Mooc)
- Now 550 university is involved and 42 Million students attending every years.

## Major MOOC Provider

PLATFORM			
Speciality	Size No.1 and business oriented	Premium images open sources	Computer enggining oriented
Establish / Founder	2012 April, Stanford university	2012 May, MIT and Harvard University	2012 February Stanford University (THUN Prof.)
Class	1497 Class	760 Class	124 Class
User	15 Million	5 Million	1.6 Million

Growth of MOOCs



# CONCLUSION

- **Our student is our product.**
- **Our customer is future employer.**
- **We have to make suitable for customer / employer.**
- **Customer is the king our education service.**

**Lets make Indonesia the greatest country through  
cyber education !**