

Pendidikan Tinggi Di Era Revolusi Industri 4.0 Dan Pasca Pandemi Covid-19





International
Task Force on Teachers
for Education 2030

COVID-19

A GLOBAL CRISIS for TEACHING and LEARNING

The **COVID-19** pandemic
has interrupted classroom learning for
at least **9** out of **10** students worldwide



191 countries
have closed all their
schools, affecting over
1.5 billion
students from pre-primary
to tertiary education

● Localized ● Country-wide ● Open
Data updated to 21 april 2020

Covid-19 Implications

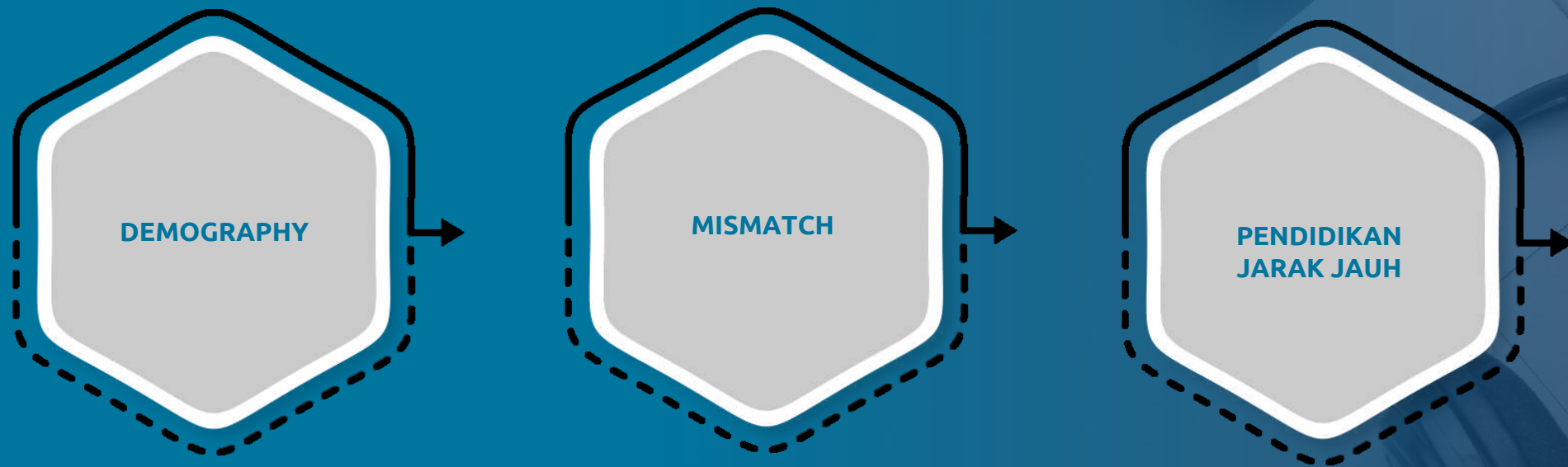


SCHOOL CLOSURES KEPT
90% OF ALL STUDENTS OUT OF SCHOOL
REVERSING YEARS OF PROGRESS ON EDUCATION

REMOTE LEARNING REMAINS
OUT OF REACH FOR
— AT LEAST —
500 MILLION STUDENTS



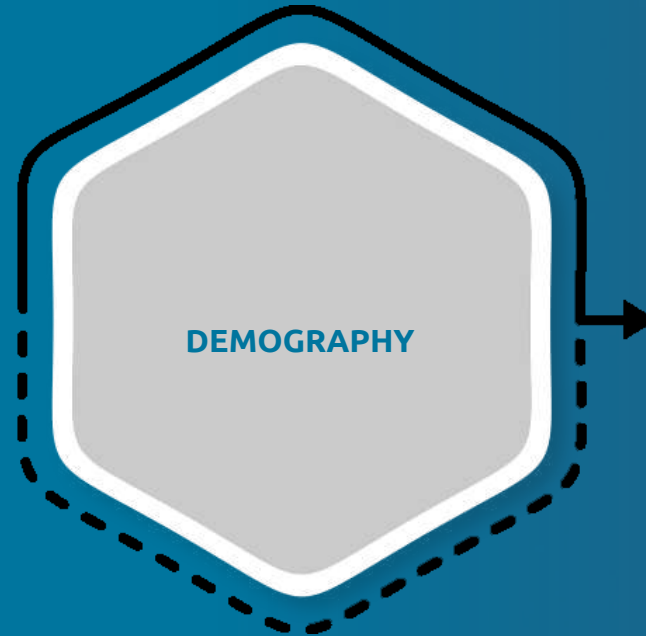
Peningkatan SDM di New Normal



BONUS DEMOGRAPHY

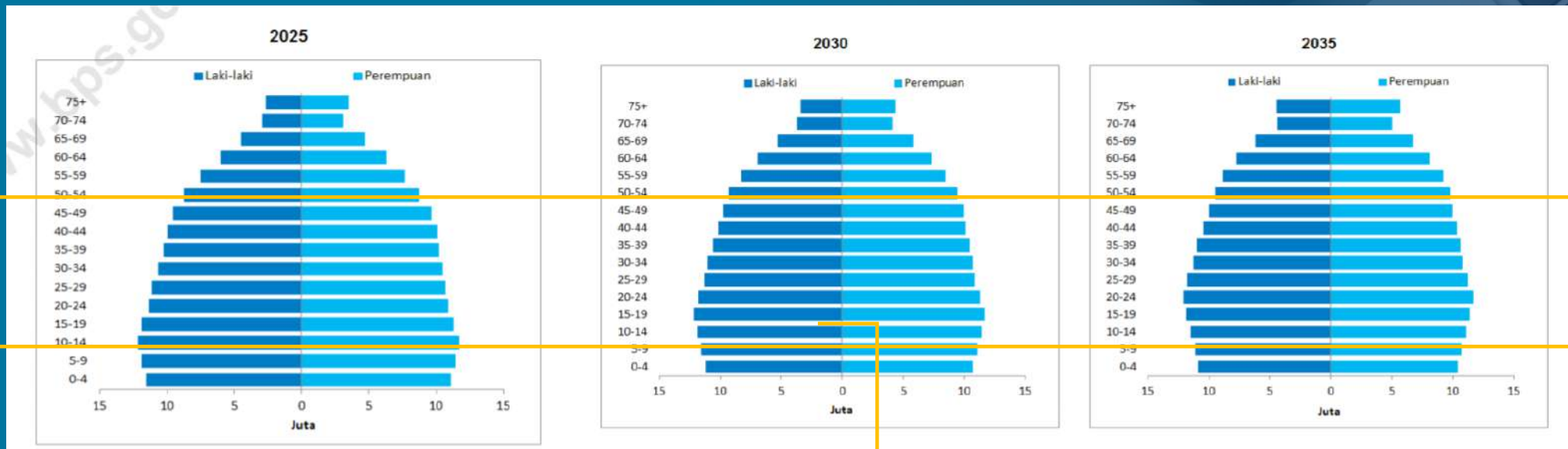
PERGURUAN
TINGGI – PEMERINTAH - INDUSTRI

AKSES DAN FLEKSIBILITAS



BONUS DEMOGRAPHY

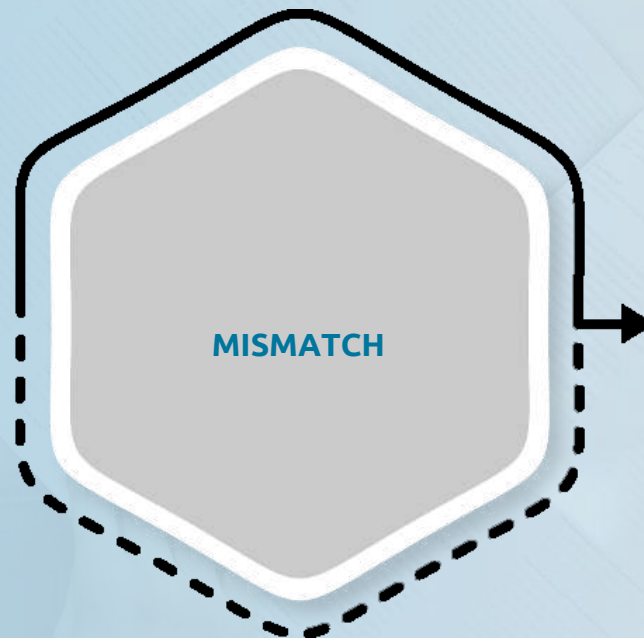
Proyeksi Piramida Penduduk Indonesia



296 juta

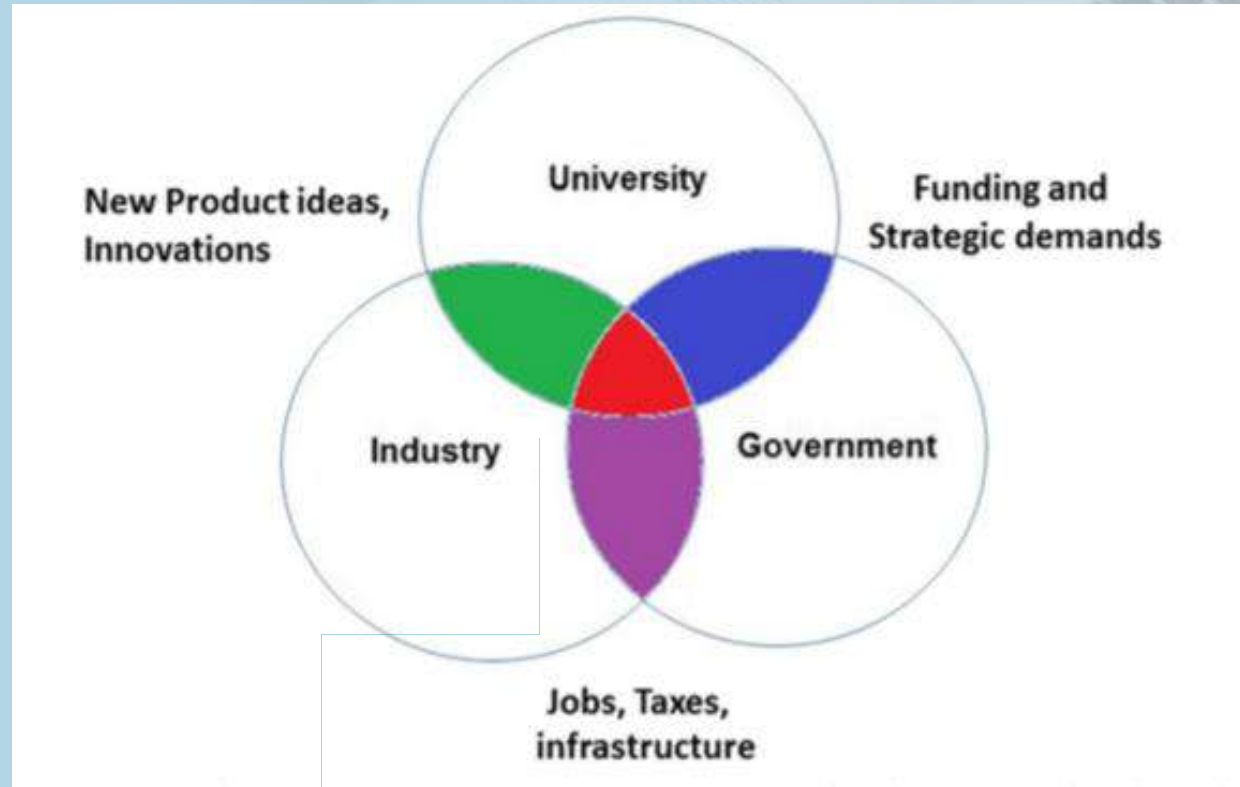
314 juta

70% Usia Produktif = 207 Juta



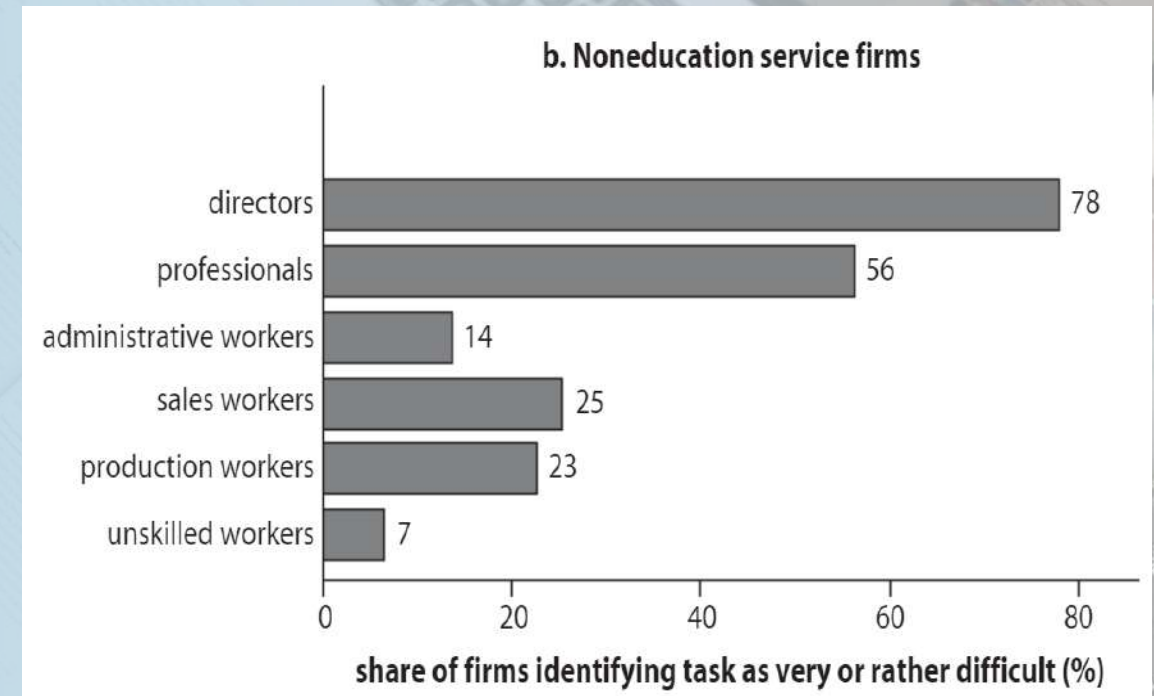
PERGURUAN TINGGI – PEMERINTAH - INDUSTRI

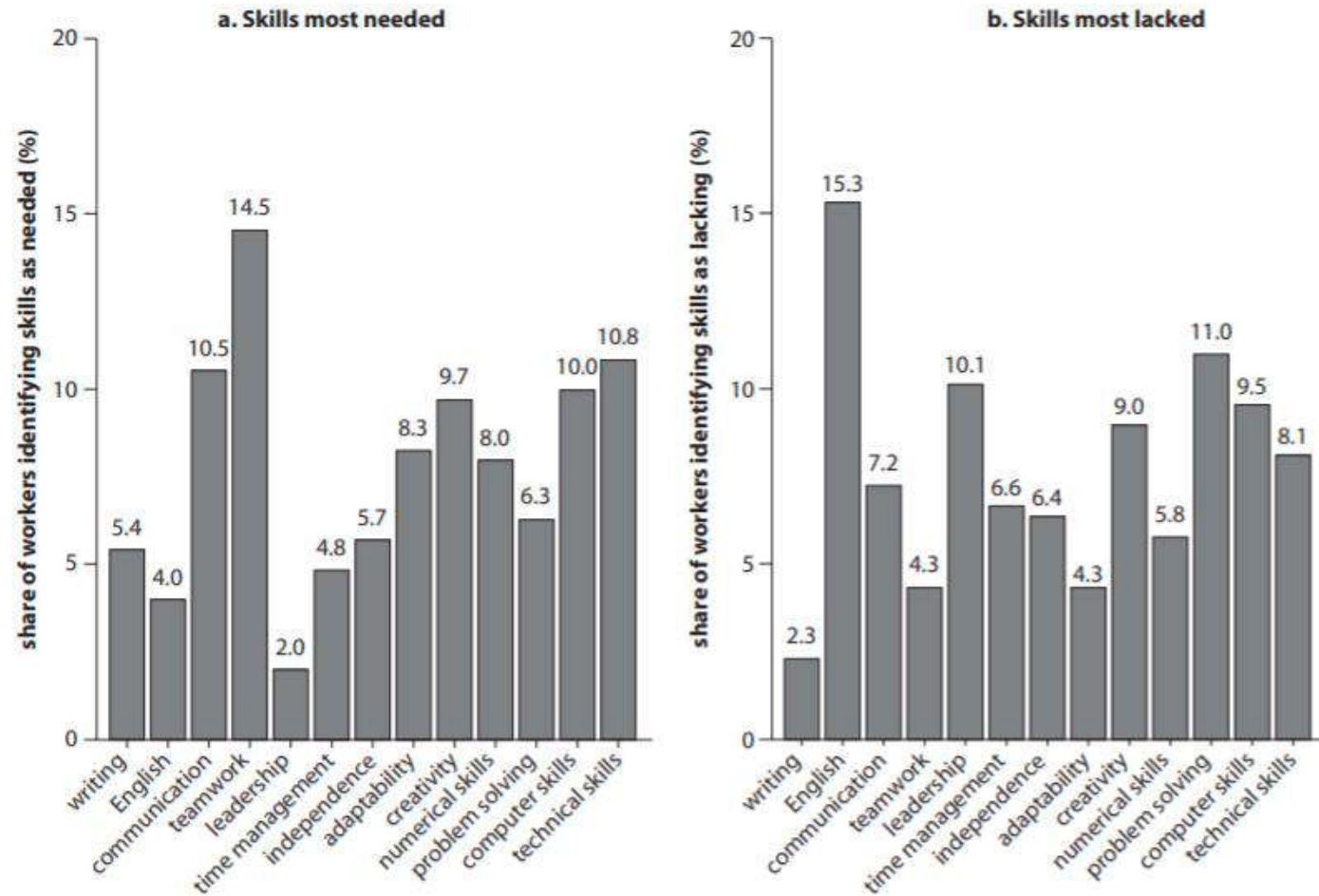
Mismatch



Sustainable Development

Persepsi Kesulitan untuk Mendapatkan Kompetensi





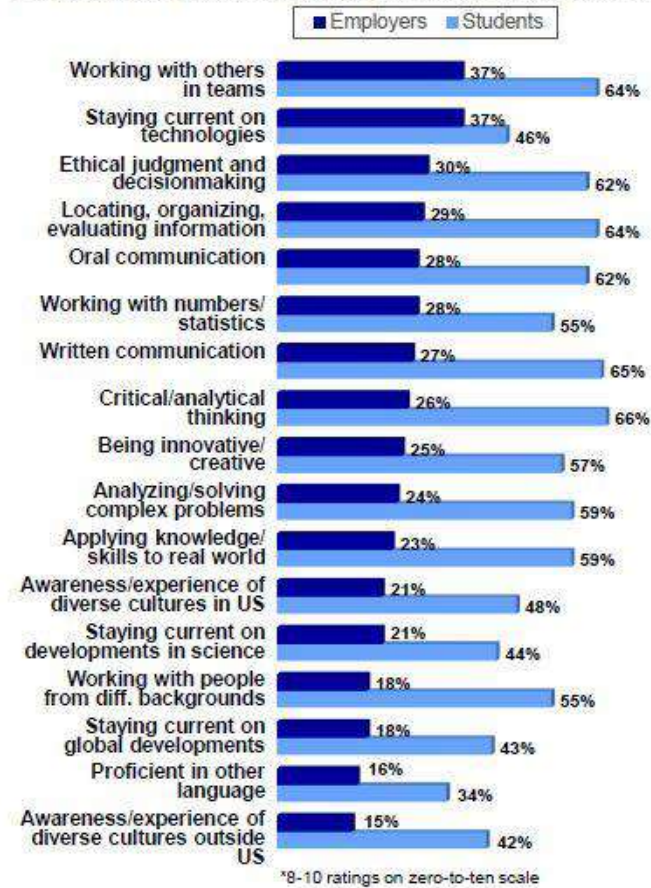
Source: Indonesia Employer/Employee Survey of Skills/Labor Demand and Job Vacancies 2008, Employee Module.

Source : Indonesia Employer/Employee Survey of Skill/Labor Demand and Job Vacancies 2008, Employee Module.

Mismatch

Employers give college graduates low scores for preparedness across learning outcomes; students think they are better prepared.

Proportions saying they/recent college graduates are well prepared in each area*





Sumber : Kimatu, Josphert Ngui (2016) : Evolution of strategic interactions from the triple to quad helix innovation models for sustainable development in the era of globalization, Journal of Innovation and Entrepreneurship, DOI: 10.1186/s13731-016-0044-x

Changing Talent Landscape

More pronounced changes to ensue in the new decade

McKinsey
& Company

11 DEC 2012

72% of Education Providers Believe That Their Graduates are Ready For Work But Less Than Half of Students and Employers Agree



START OF THE DECADE

BUSINESS
INSIDER

18 JUN 2019

3 in 4 Singaporeans say they weren't taught enough skills to excel at work – and millennials feel the worst prepared



END OF THE DECADE

Deloitte.

18 SEP 2021

By 2030, two billion youth worldwide will lack skills to participate in the workforce



THE NEXT DECADE





7 IMPIAN INDONESIA 2015-2085

Guna mempercepat perwujudan Visi Negara Kesatuan Republik Indonesia (NKRI), Pemerintah telah menggagas **7 Impian Indonesia Tahun 2015-2085**

- Sumber daya manusia Indonesia yang kecerdasannya *mengungguli* bangsa-bangsa lain di dunia
- Masyarakat Indonesia yang menjunjung tinggi pluralisme, berbudaya, religius, dan nilai-nilai etika
- Indonesia menjadi pusat pendidikan, teknologi, dan peradaban dunia
- Masyarakat dan aparatur pemerintah yang bebas dari perilaku korupsi
- Terbangunnya infrastruktur yang merata di seluruh Indonesia
- Indonesia menjadi Negara yang mandiri dan paling berpengaruh di Asia Pasifik
- Indonesia menjadi barometer pertumbuhan ekonomi dunia

Indonesia baik.id 

Sumber : Kementerian PPN/Bappenas | Produk 21-05-2019

[f IndonesiaBaik.id](#) [@IndonesiaBaikID](#) [IndonesiaBaikID](#) [@IndonesiaBaikid](#)

Basis hukum kebijakan Merdeka Belajar : Kampus Merdeka



Contoh dan rekomendasi mitra yang dapat bekerjasama dengan Perguruan Tinggi dalam pendirian program studi baru

Kategori:	Contoh
i Perusahaan multinasional	Perusahaan besar dunia yang masuk dalam daftar Fortune 500 (Contoh: Royal Dutch Shell, Nestlé, Toyota, dan lain-lain)
ii Perusahaan teknologi global	Perusahaan teknologi yang memiliki reputasi sangat baik (Contoh: Google, Apple, Amazon, Intel, Cisco Systems, dan lain-lain)
iii Startup teknologi	Perusahaan <i>startup</i> yang telah mengumpulkan dana sebesar minimum USD \$50 juta (Contoh: Tokopedia, Traveloka, Gojek dan lain-lain)
iv Organisasi multilateral	Semua organisasi multilateral dan nirlaba kelas dunia (Contoh: PBB, Bank Dunia, ADB, USAID, Gates Foundation, dan lain-lain)
v BUMN dan BUMD	BUMN berskala besar di tingkat nasional (Contoh: PLN, BRI, Pertamina, dan lain-lain) BUMD berskala besar di setiap provinsi (Contoh: MRT, Bank BJB, Trans Jakarta, dan lain-lain)

Catatan: Organisasi yang dapat menjadi mitra pendirian prodi tidak terbatas pada kategori dan contoh-contoh di atas



Kementerian Pendidikan dan Kebudayaan



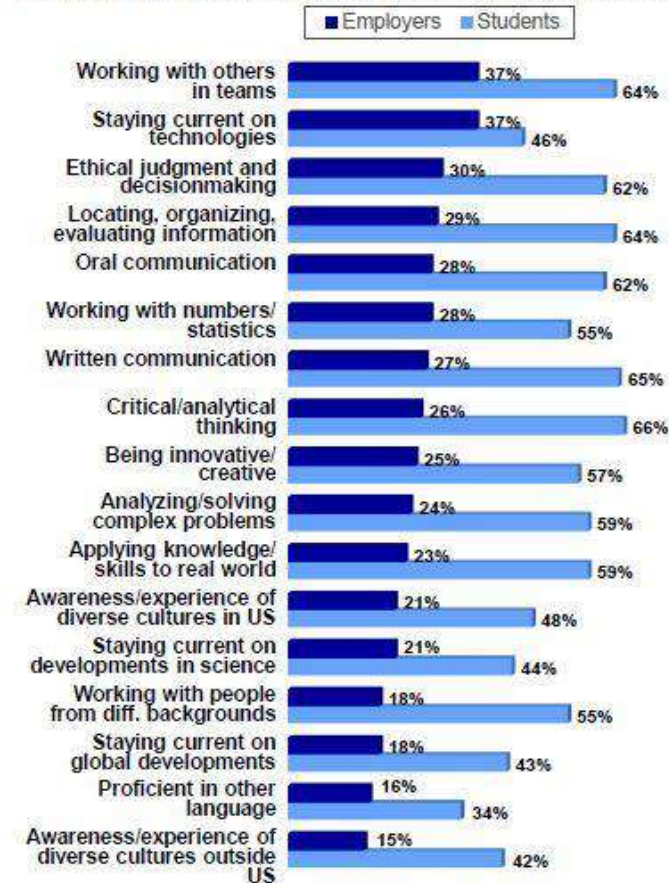
JOB AND SKILL FUTURE

Skills Future

- Working in Team
- Ethical Judgment and Decision making
- Oral and Written Communication skills.
- Critical and Analytical Thinking
- Innovative and creative
- Multicultural understanding

Employers give college graduates low scores for preparedness across learning outcomes; students think they are better prepared.

Proportions saying they/recent college graduates are well prepared in each area*



*8-10 ratings on zero-to-ten scale

Information Technology

Top 10 Skills for Software Engineer

01	Web Applications
02	Design
03	Software Development
04	SQL
05	Development
06	Applications
07	Software
08	Web Application Design
09	Knowledge Management
10	SQL Server

Top 10 Skills for Web Developer

01	Java
02	PHP
03	Script
04	SQL
05	PHP Frameworks
06	Web Applications
07	CSS JavaScript
08	Product Knowledge
09	Web Application Design
10	Development

Top 10 Skills for iOS Developer

01	Applications
02	GIS Applications
03	Design
04	Web Applications
05	Mobile Applications
06	Development
07	Mac OS
08	Always Willing to learn
09	Mobile Phone Apps
10	Mac OS X

#1

Job Demand
by Industry

Top 10 Job Titles Across the Years 2017 - 2019

2017

01	Software Engineer
02	Web Developer
03	IT Officer
04	IT Executive
05	Software Developer
06	Programmer
07	Senior Software Engineer
08	Graphic Designer
09	Android Developer
10	iOS Developer

2018

01	Software Engineer
02	Web Developer
03	Graphic Designer
04	IT Officer
05	IT Executive
06	Android Developer
07	Programmer
08	Software Developer
09	Senior Software Engineer
10	iOS Developer

2019

01	Software Engineer
02	Web Developer
03	Senior Software Engineer
04	IT Executive
05	Software Developer
06	Graphic Designer
07	IT Officer
08	Programmer
09	Digital Marketing Executive
10	PHP Developer

Top 10 skills of 2025



Analytical thinking and innovation



Active learning and learning strategies



Complex problem-solving



Critical thinking and analysis



Creativity, originality and initiative



Leadership and social influence



Technology use, monitoring and control



Technology design and programming



Resilience, stress tolerance and flexibility



Reasoning, problem-solving and ideation

Type of skill

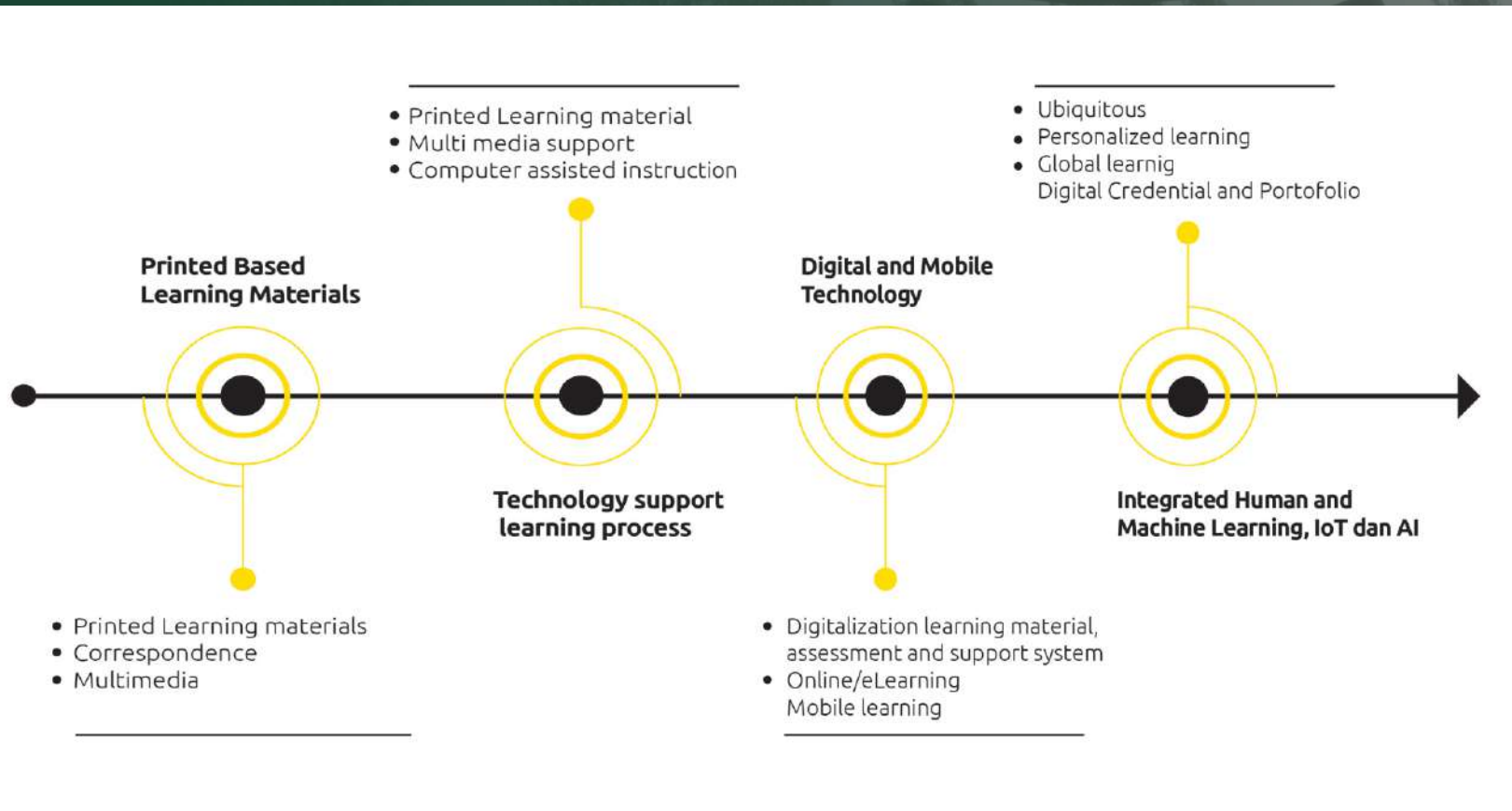
-  Problem-solving
-  Self-management
-  Working with people
-  Technology use and development

Source: Future of Jobs Report 2020, World Economic Forum.

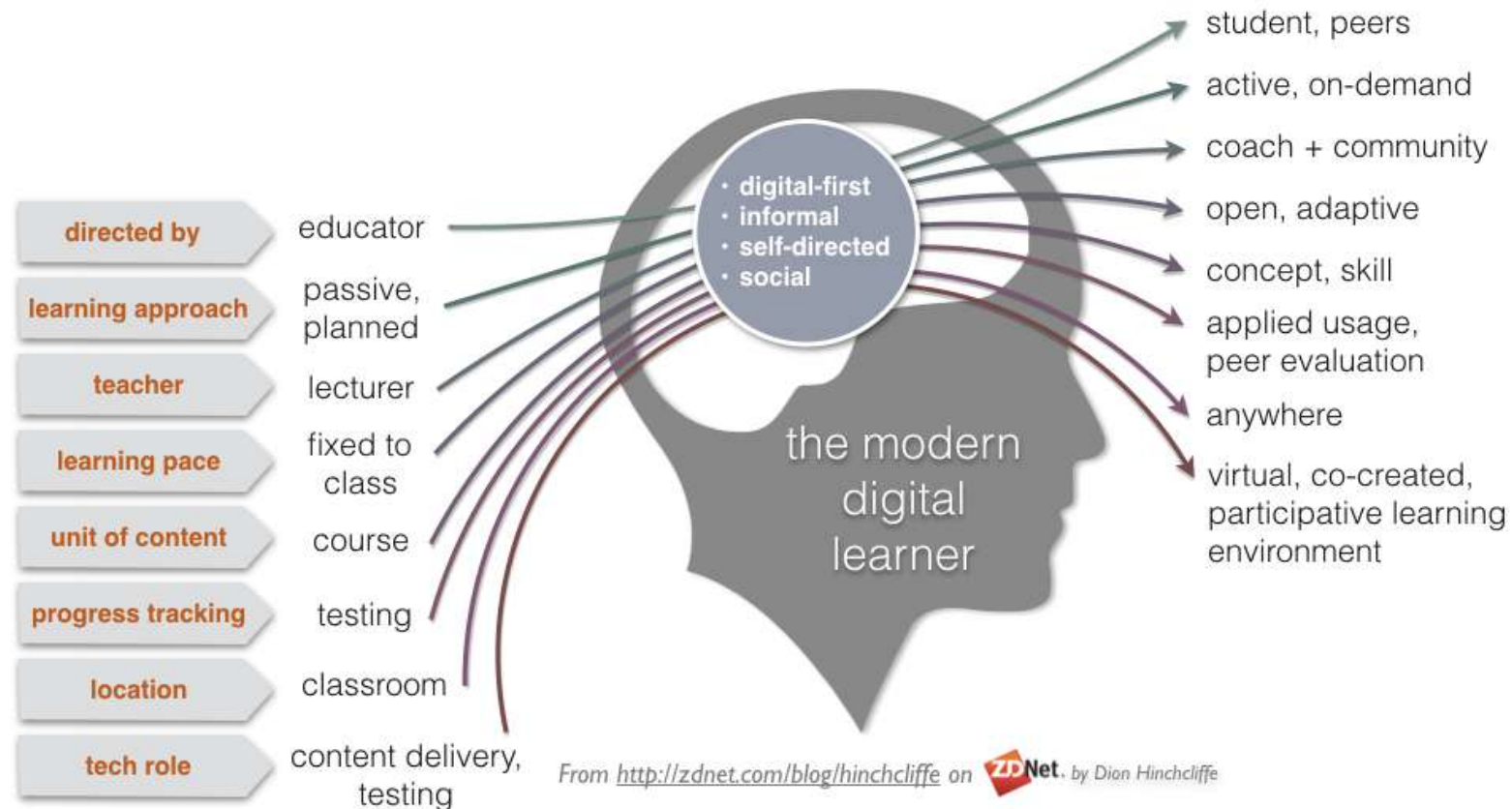
PERUBAHAN PARADIGMA PENDIDIKAN TINGGI

UNIVERSITAS TERBUKA

EVOLUSI UT



The Digital Transformation of Learning

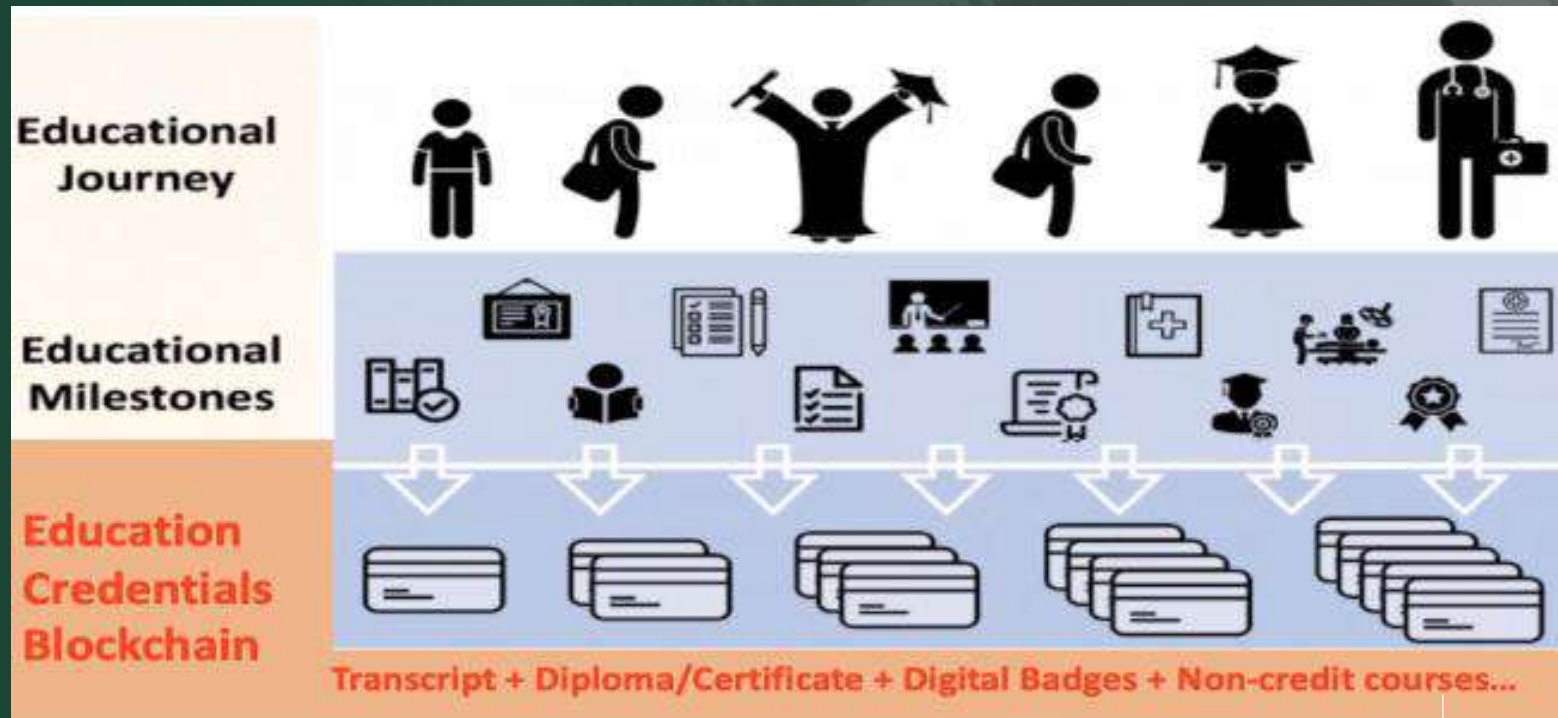


Career Development and Lifelong Learning



https://www.researchgate.net/figure/The-educational-career-journey-of-self-discovery-in-the-Primary-MySkillsFuture-for_fig4_333829659

Career Development and Lifelong Learning



Adapted from Athena Global Technologies

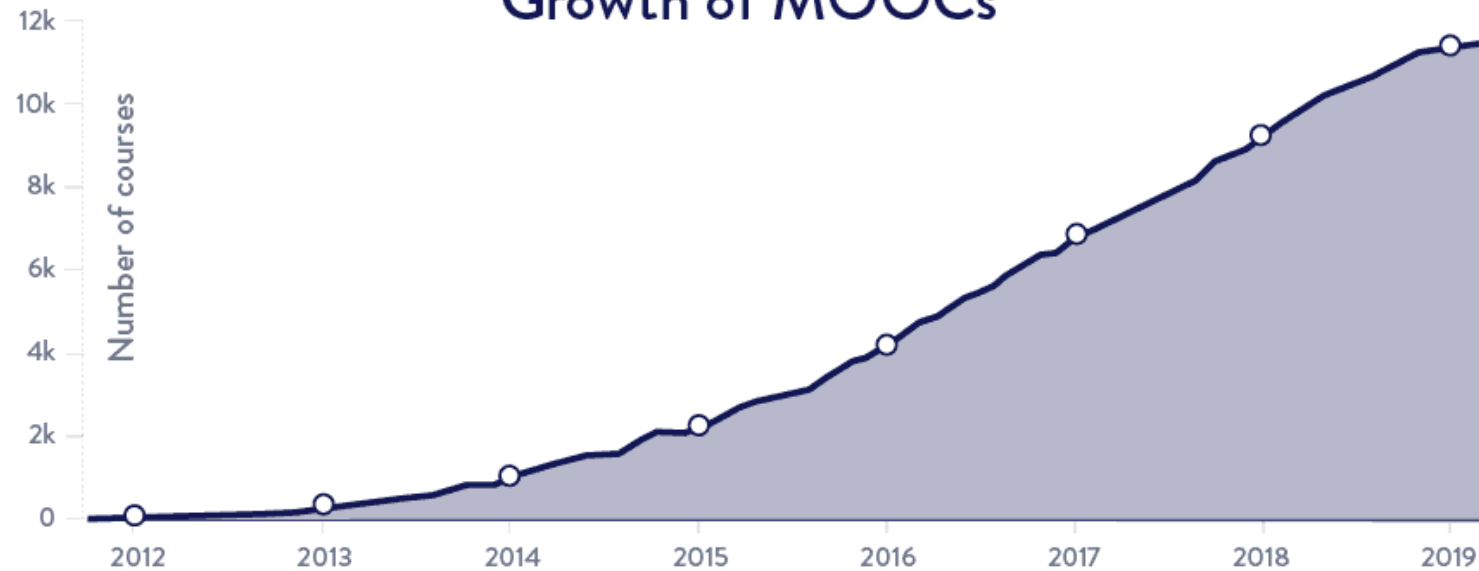
**Jobs
Market**

Dampak MOOCs pada Perguruan Tinggi

Moocs Providers

CLASS CENTRAL

Growth of MOOCs



By the Numbers: MOOCs in 2018

CLASS CENTRAL



101M
Students



900+
Universities



11.4k
Courses

By the Numbers: MOOCs in 2018

Class Central

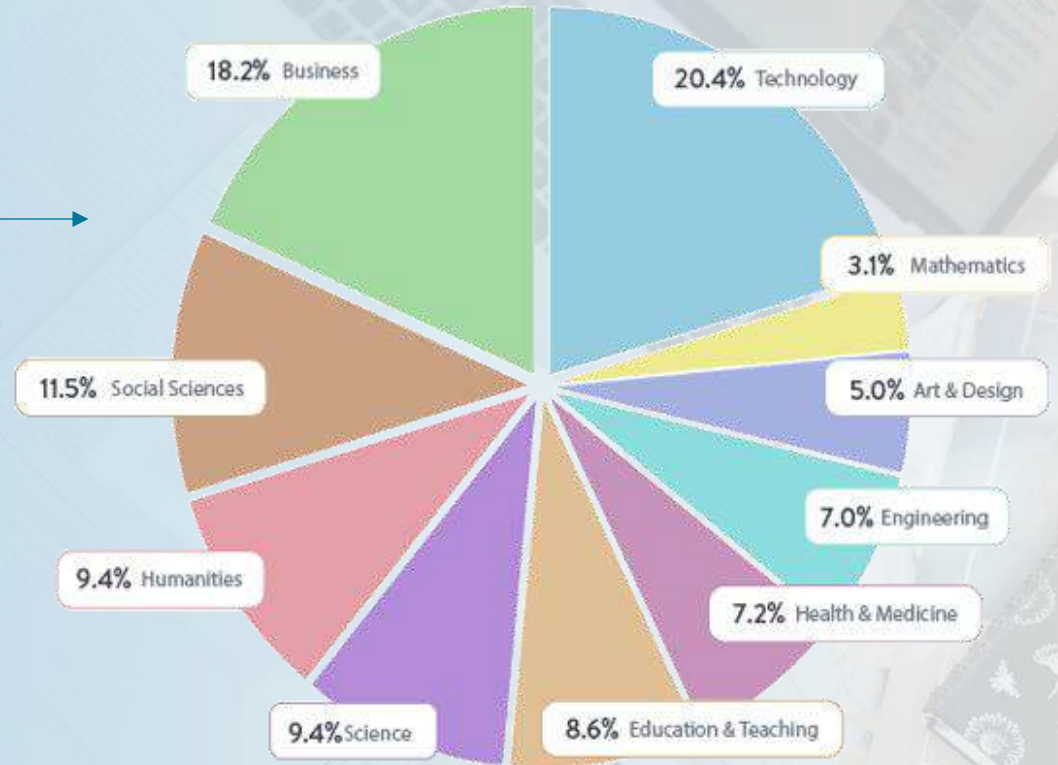
Top 5 MOOC Providers



By the Numbers: MOOCs in 2017

Class Central

Course distribution by subject





UDACITY



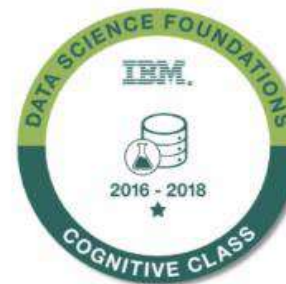
Situs MOOC	Penyajian Konten	Penyajian Materi	Institusi Pendukung	Estimasi Kunjungan*
Code Saya	Teks & Interaktif	4	Digital Ocean	67,300
FOCUS Fisipol UGM	Teks & Video	12	BCA	836
IndonesiaX	Teks & Video	15	edX, HarvardX, IDX, ITB, ITS, NET, Rumah Perubahan, UI, UNAIR, UNPAD, UT	141,200
MOOCs Univ. Terbuka	Teks & Video	7	–	45,200
Sibejoo	Video	82	–	17,100
UCEO Univ. Ciputra	Teks & Video	11	–	44,300



Modern Digital Credentials

Digital Badges must be:

- ❑ Learner-controlled
- ❑ Verifiable
- ❑ Shareable and discoverable
- ❑ Interoperable



Class Central

CLASS CENTRAL

MOOC-based credentials

Credential	No. of credentials
Specializations by Coursera	257
Professional Education by edX	64
MicroMasters by edX	43
Professional Certificate by edX	35
XSeries by edX	32
Programs by FutureLearn	22
Nanodegrees by Udacity	22
Programs by Kadenze	21
Micro-degrees by XuetangX	8

Micro credentials on the Market Today

Platform	Microcredentials
Coursera	Specialization, MasterTrack Certificate, Professional Certificate
edX	XSeries, MicroMasters, Professional Certificate
Udacity	Nanodegree
FutureLearn	Program, Graduate Certificate, Graduate Diploma
Kadenze	Program

Imba Enrollments



Class Central

<https://www.classcentral.com/report/six-tiers-mooc-monetization/>

Class Central

	 Cost	 Students
Online Masters of Science in Computer Science  &  UDACITY	\$7k	6365
iMBA  ILLINOIS &  coursera	\$22k	1100
Online Masters in Analytics  &  edX	\$10k	650

Benefits of Online Education



Keunggulan Pembelajaran Daring

- Overcoming Resource Constrains: Increasing Enrollment, Limited Expertise.
- Increased Flexibility (From Certificate of Competence (DIY) approach to Degree, Self-Paced Learning)
- Low Cost – Investment vs Concurrent Cost
- Increased global and regional reach

Lembaga Sertifikasi Profesi

- Pengakuan kompetensi (RPL)
- Sertifikasi Profesi
- Melaksanakan Uji Kompetensi
- Mengembangkan Standard kompetensi profesi

Reference

- Slide 13, 14, 15 Indonesia Governance Index
http://www.kemitraan.or.id/igi/index.php/province-performance?id=233&prov_id=5
- Slide no 17 <https://www.bps.go.id/publication/>
- Slide No 32 Online Learning <https://id.pinterest.com/pin/613615517952975384/>