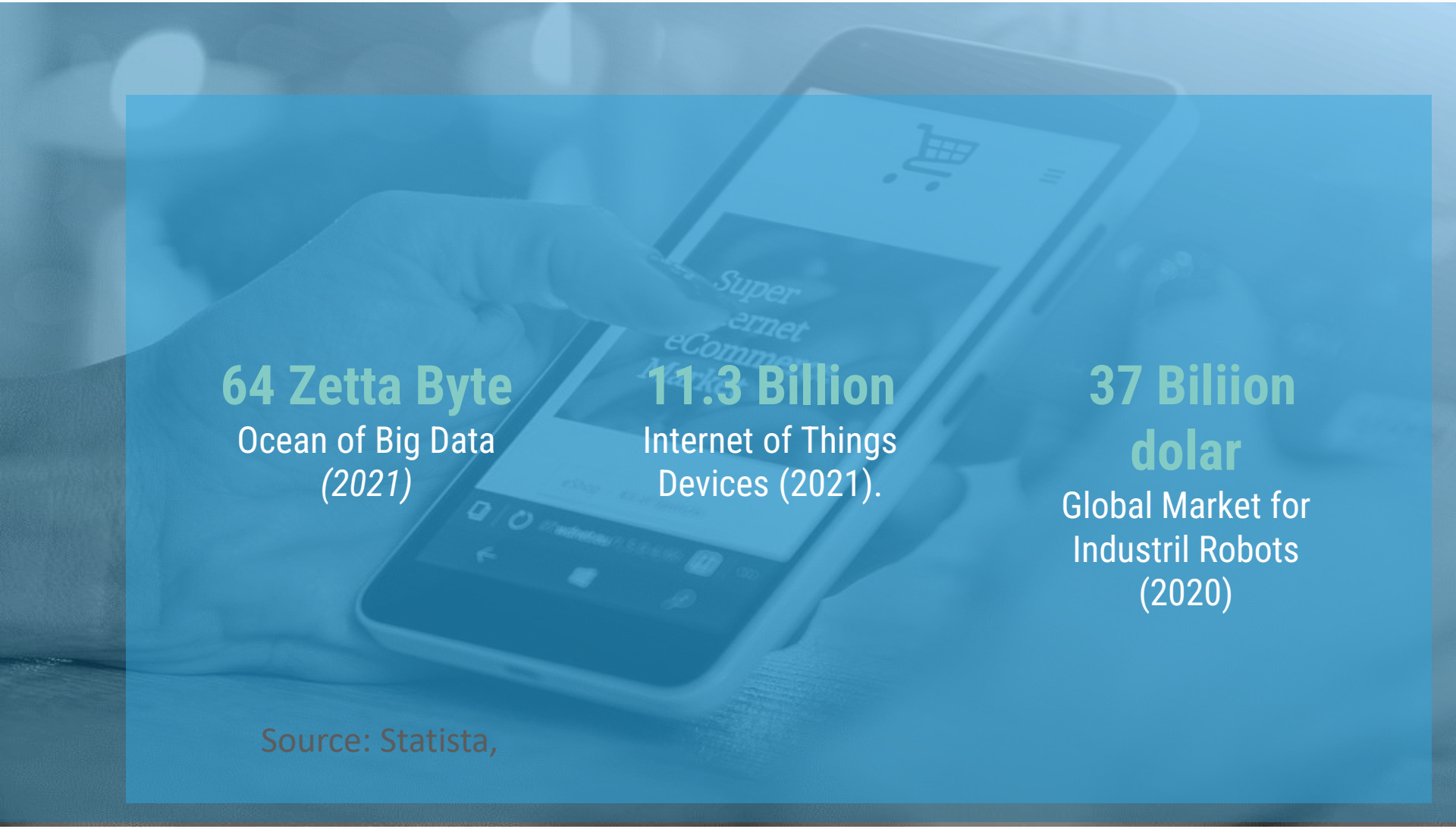
Winning the Race between Skill and Technology

Vivi Alatas



64 Zetta Byte

Ocean of Big Data *(2021)*

11.3 Billion

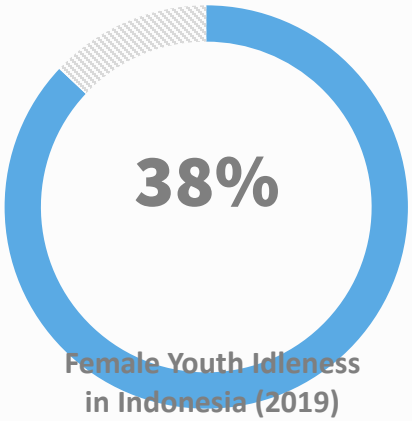
Internet of Things Devices (2021).

37 Biliion dolar

Global Market for Industril Robots (2020)

Source: Statista,

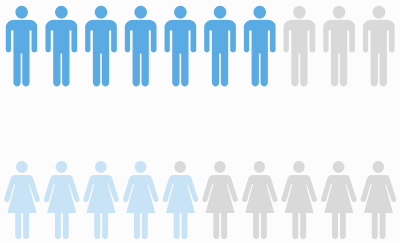
Will the large number of young new entrants find job?



400-800 million

Individual could be displaced by automation between 2016-2030 (Mckinsey)

Average Female Labor Force Participation



More than 80 countries

Has youth idleness above 20%

The pandemic has exacerbated the already high levels of idleness among youth. Idleness is defined as not being in school, not having work, not looking or preparing for a job, or not conducting training

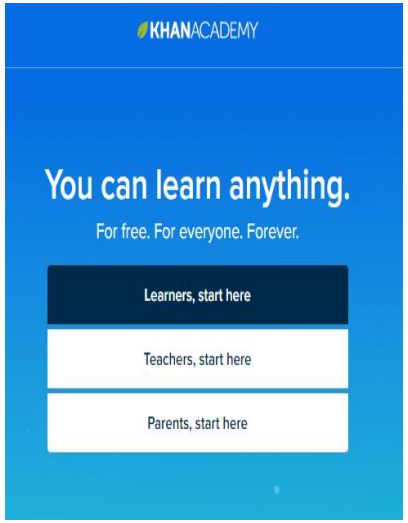
A race between skill and technology

Workers will face stiff competition from those who can harness technology

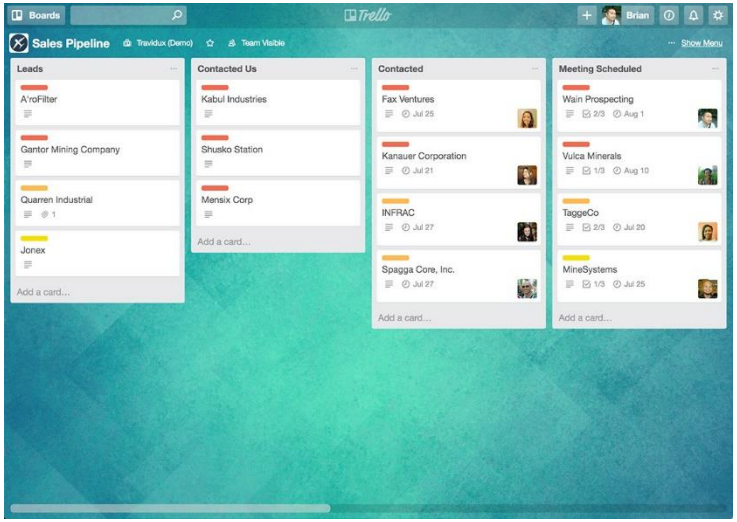
Automation in manufacturing could lead to large job losses for low-skilled workers

EFFICIENCY

Digital technologies make other factors of production work better



coursera
education for everyone



Workers can easily improve their skills using a wealth of online resources

Managers can better supervise workflows with resource management software and collaboration too

To win the race education reform is imperative

Education and educational institutions, schools, universities and other education institution need to change in all dimensions.

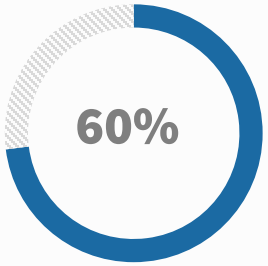
Why…

The goal
is not just about preparing young people for the world of work but more about acquiring skill to become active, responsible and engaged citizens

Lower Demand
The cohort of international students may not come back to the pre pandemic level

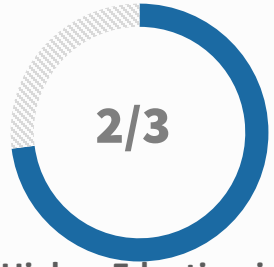
Pandemic
Across the world, universities are still coping from the global pandemic impact.

Aligned Forces
The current model is under pressure because of pressure on affordability, the costs and benefits of digitization, and emerging new competitors.



Earned degree

Within six year in 2017 (US)



“Higher Eduction is not worth the cost to student anymore”.

Source: Third Way/New America Higher Ed Tracking SUrvey

What...

What skills are required to embrace digital transformation ?
How will the education of the future look like?

01

Data Revolution

The world needs more mathematicians, data scientists, statisticians, econometricians

02

Digital Literacy

Digital Literacy is the ability to live, learn and work in a society where interaction and communication use digital technology.

03

Metacognitive Skill

Students will need meta-cognitive skills (critical thinking, creative thinking, learning to learn and self-regulation)

04

Adaptive Personalized Training

personalized training, adaptive to cultivate students' unique strengths, interests and talents.

05

Collaboration Skill

Young people need to become adept at handling tensions, dilemmas and trade-offs of choices

Where

Learn from anywhere

No longer dominated by offline but more anytime anywhere with possibility of blended mechanism. Opportunities for students from low-income families are also increasing because the costs can become cheaper.

Redesigning University Value Proposition

Universities are also about being inspired and getting the network from professors and classmates.

No more monopoly power

Universities are just one category of a growing pool of knowledge services that are easily accessible through digital platforms.

Collaboration with local institution

Huge Opportunity to partner with local insitutions in emerging markets. They could use technology to do so at scale and at a price point that is affordable locally.

Higher demand of online learning

In 2016 21 million students registered for Coursera's online courses, 71 million in 2020 and 92 million in 2021

It has started

Some are partnering with online learning platforms, such as Coursera, edX to create and disseminate courses.

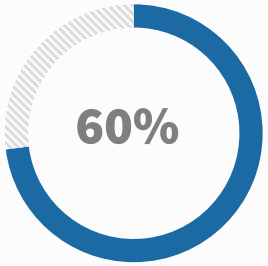
How…

Gamification, hands-on, immersion
Will give no chance to get bored.

Metaverse
Metaverse can be used as a tool to increase educational presence, alleviate anxiety, enable immersive learning, and increase class participation.

Simulation
Students can use digital simulations and models to explore volcano eruption and the human cells from their desk

Blockchain
Blockchain technology can store learning records in a trusted, distributed manner, provide credible digital certificates, and protect intellectual property through data encryption.



Technology improved their leaning

$19 billion

Global investment in learning technology (2019)

Who…

$19 billion

Predicted E-learning market size by 2026 (Source Global Market Insight)

Changing Power Balance

The power balance has most likely shifted from the college to the student. Now, students have more options and flexibility.

Changing role

Universities will need to understand what the current student needs and develop a course curriculum that caters to a career-driven education. Their role as facilitator, coach, advisor will become more important

Variety of Choices

Universities no longer have a monopoly on accreditation and nondegree, lifelong-learning credentials. Many digital learning providers, employer schemes, and industry bodies compete directly with universities

When ....

Lifelong Learning
Continuous learning throughout the lifetime using short, tailored training courses and project-based learning.

Collaboration with Private Sector
adult learning courses that are more relevant to employers

Continuous needs of upskilling
As some jobs become obsolete and new ones are created, people will have to develop new skills in order to keep up with the demands of the workforce.

Microcredential
A shift toward lifelong micro-credentials, just-in-time learning. This will allow employee to gain the skills they need over time, without having to invest in a degree,

Learning Organization
Another challenge is inducing the private sector to become a learning organization. To compete in the world, companies need to continuously improve the skills and productivity of their workers..

Blockchain Credential
Learners could build a blockchain-based CV, which would be stored in the cloud and contain details about their past achievements.

Imagine the future

Imagine university student in Flores has access to the same quality of education as those in developed countries like the US or UK, without having to move abroad.
She studies on a self-learner, remote basis using state of the art learning and behavioral management system that offered personalized, adaptive, gamified and simulation approach. She occasionally visits to the local campus for supplemental classes, group works with her peers. She graduates with globally recognized and valued certification!
!