



Focus group discussion

Isu Strategis Program TIK Tahun 2020
Isu Strategis TIK di Daerah: Tantangan dan
Rekomendasi

Suwanto Raharjo

Latar Belakang

Tata Kelola SPBE

Inisiatif Strategis	Keluaran	Target Waktu
Pembangunan Arsitektur SPBE	Sistem Informasi Arsitektur SPBE	2018 - 2021
	Arsitektur SPBE Nasional	2018 - 2020
	Arsitektur SPBE Instansi Pusat	2020 - 2021
	Arsitektur SPBE Pemerintah Daerah	2020 - 2021
Pembentukan dan Penguatan Kapasitas Tim Koordinasi SPBE	Tim Koordinasi SPBE Nasional	2018 - 2019
	Tim Koordinasi SPBE Instansi Pusat	2018 - 2019
	Tim Koordinasi SPBE Pemerintah Daerah	2018 - 2019
Penguatan Kebijakan	Kebijakan Makro	2020 - 2024
	Kebijakan Meso	2018 - 2019
	Kebijakan Mikro	2019 - 2025
Evaluasi Penerapan Kebijakan SPBE	Evaluasi SPBE Nasional	2018 - 2025
	Evaluasi SPBE Instansi Pusat dan Pemerintah Daerah	2018 - 2025
	Audit TIK	2018 - 2025

PERATURAN PRESIDEN REPUBLIK INDONESIA

NOMOR 95 TAHUN 2018

TENTANG

SISTEM PEMERINTAHAN BERBASIS ELEKTRONIK

Latar Belakang



Home / Money / Work Smart

Menkominfo: 2030, Indonesia Akan Kekurangan 9 Juta Talenta Digital

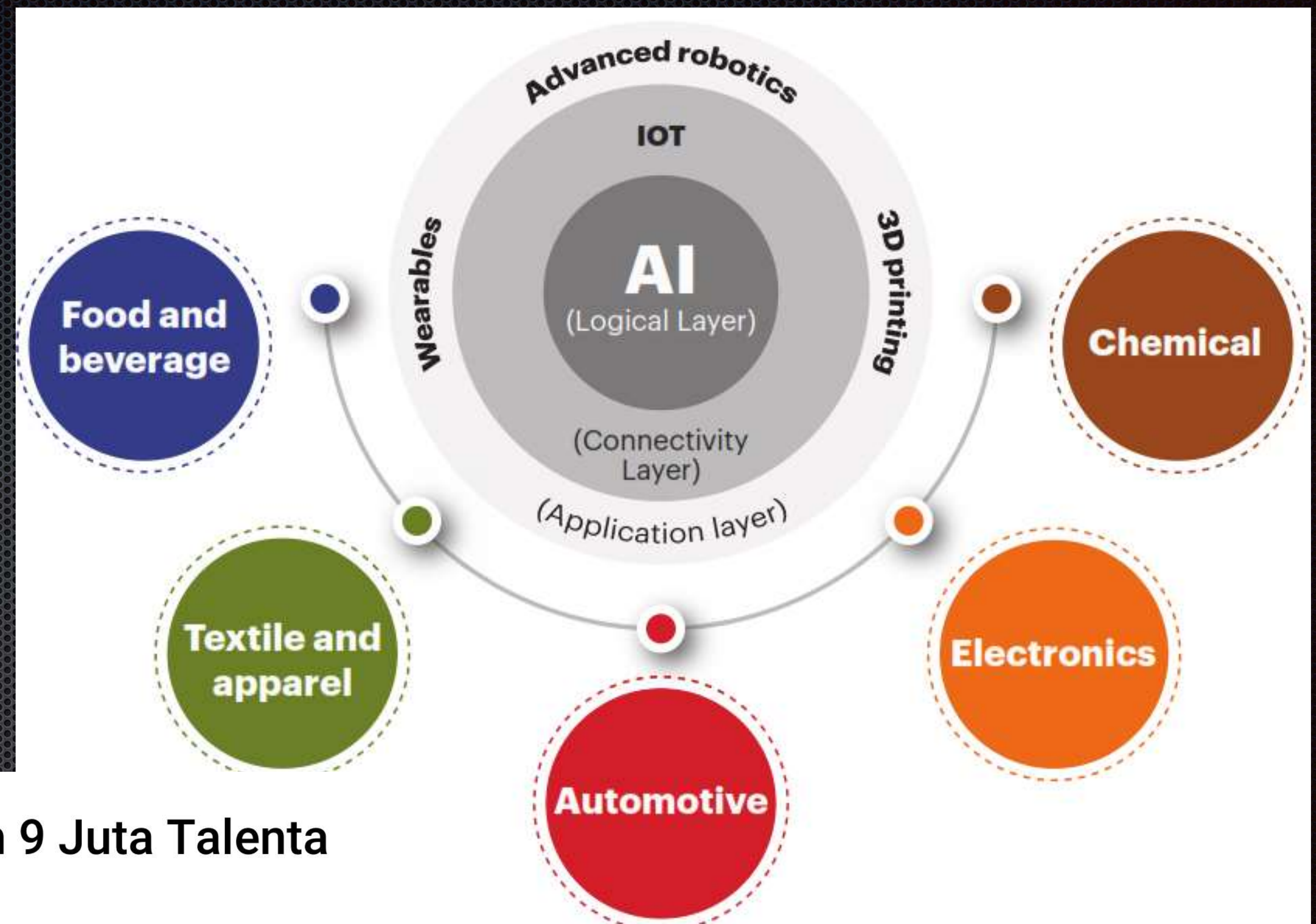
Kompas.com - 28/10/2019, 17:21 WIB

Ini Tantangan Nadiem Sebagai Mendikbud di Era Digital

Penulis: Desy Setyowati

© 24/10/2019, 10.09 WIB

Wawasan pelajar Indonesia terkait ekonomi digital dinilai masih rendah.



Infrastruktur dan Talenta Jadi Tantangan Transformasi Digital di Indonesia

Proses transformasi digital selalu akan berhadapan dengan berbagai macam tantangan.



Rahmad Fauzan - Bisnis.com
31 Oktober 2019 | 19:07 WIB

Technology Trends

Top 10 Strategic Technology Trends for 2020

People-centric



Hyperautomation

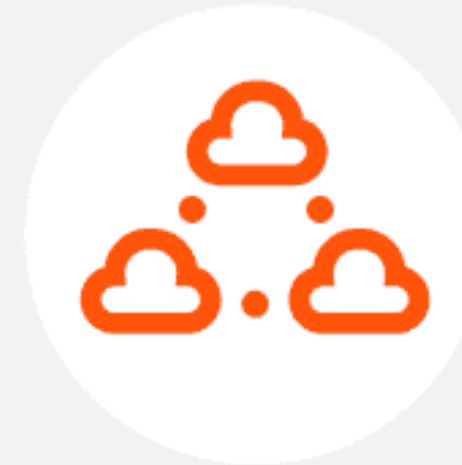


Multiexperience

Smart spaces



Empowered Edge



Distributed Cloud



Democratization



Autonomous Things



Human Augmentation



Practical Blockchain



Transparency and Traceability



AI Security

Top 10 Digital Transformation Trends For 2020

- 5G for You and Me
- A faster WiFi for a faster world
- **Analytics are the Competitive Advantage**
- **AI and Machine Learning become force multipliers for data analytics**
- Blockchain moves beyond Crypto:
- RPA (Robotic Process Automation)catches a second wind:
- **Conversational AI becomes a legitimate interface:**
- Connected vehicles, autonomous drones and Smart Cities become our new reality
- XaaS (Everything-as-a-Service), UX/CX, and privacy



The top 7 digital transformation trends shaping 2020

Connecting the consumer experience

Data-driven business

Artificial intelligence and machine learning

Multi-cloud computing

Partnering with IT to turbocharge the business

Co-creating value with external stakeholders



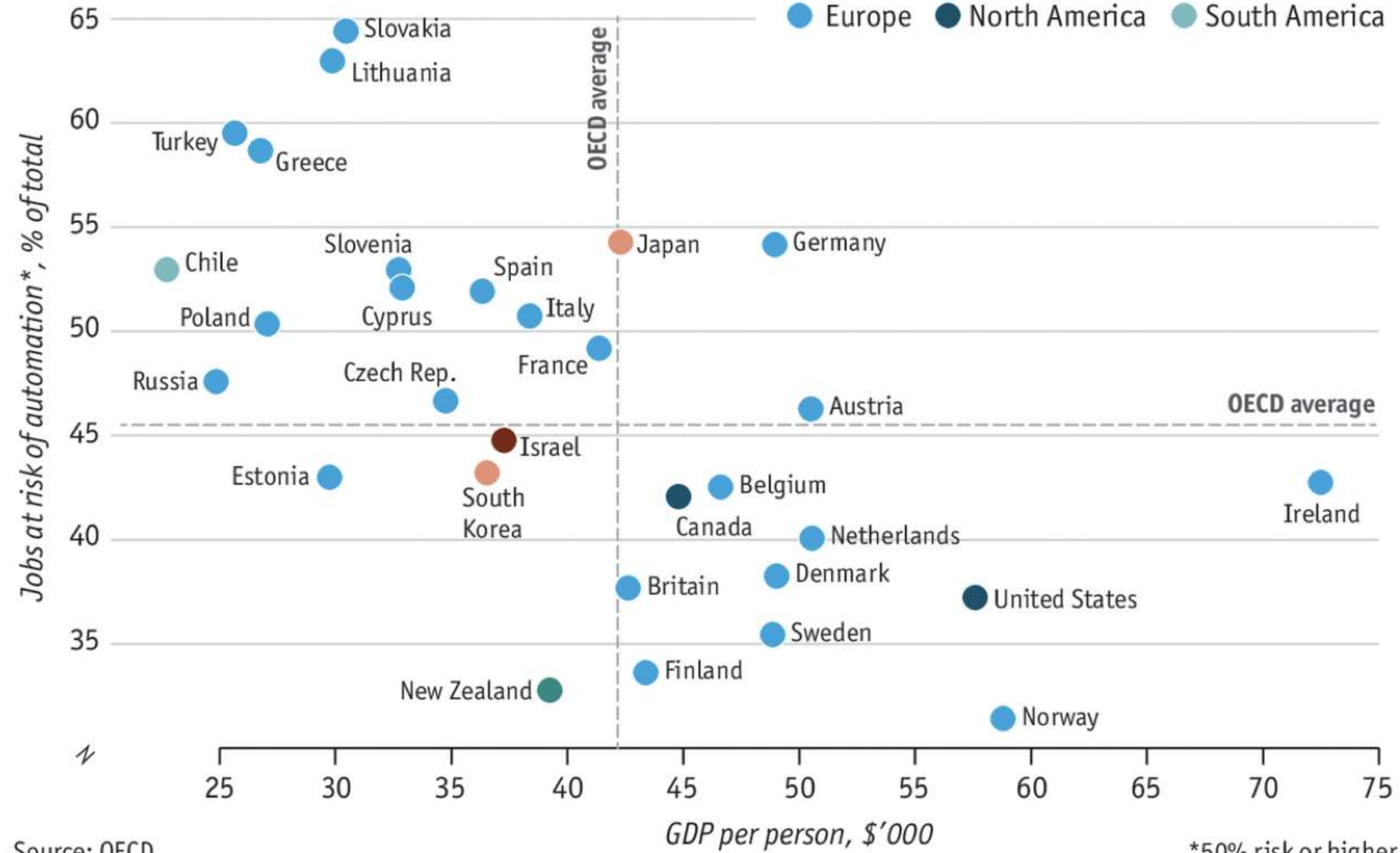
Half of jobs are vulnerable to automation

Wage against the machine

Automation risk* and GDP per person, selected countries

Region

- Asia
- Middle East
- Oceania
- Europe
- North America
- South America

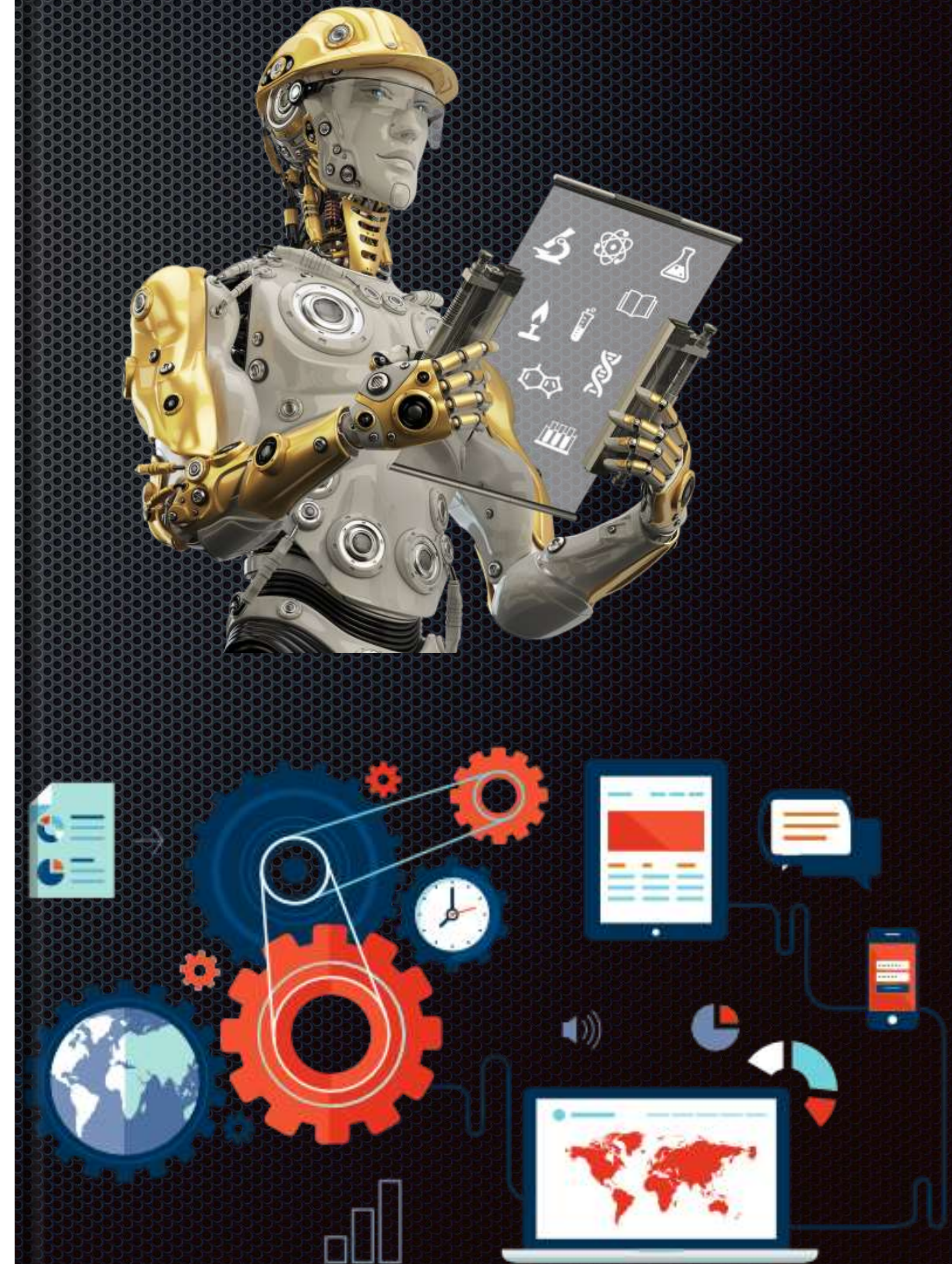


Source: OECD

*50% risk or higher

Economist.com

<https://www.economist.com/graphic-detail/2018/04/24/a-study-finds-nearly-half-of-jobs-are-vulnerable-to-automation>



A Minute on the Internet in 2019

Estimated data created on the internet in one minute



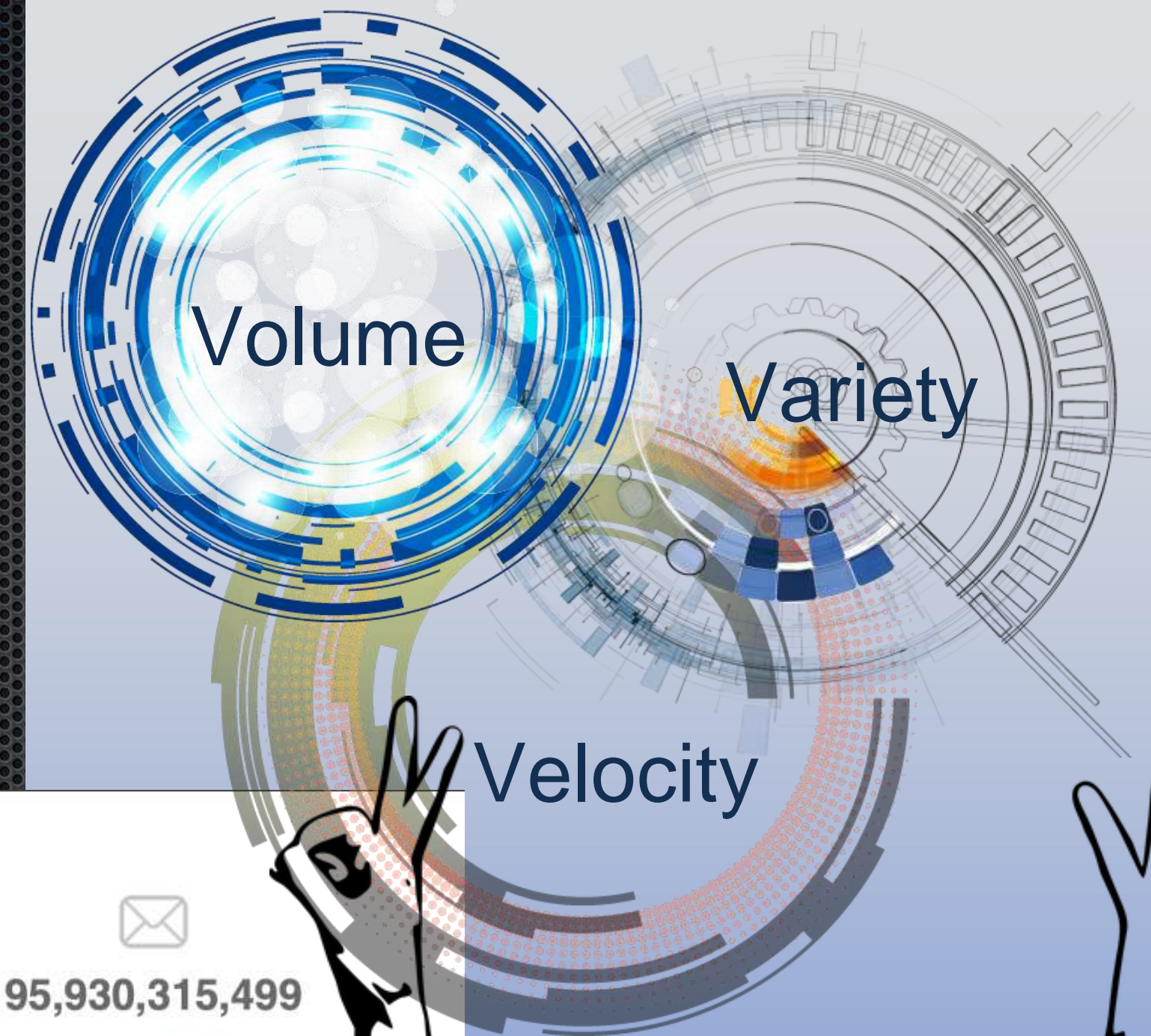
@StatistaCharts Sources: Lori Lewis & Officially Chad via Visual Capitalist.

statista

DATA POWER

<https://www.internetlivestats.com>

(22 - Okt - 2019)



1,722,876,516
Total number of Websites

95,930,315,499
Emails sent today

2,527,497,067
Google searches today

2,409,030
Blog posts written today

281,844,574
Tweets sent today

2,625,519,943
Videos viewed today on YouTube
in 1 second

30,690,738
Photos uploaded today on Instagram

51,887,707
Tumblr posts today



JAN
2019

SOCIAL MEDIA OVERVIEW

BASED ON MONTHLY ACTIVE USERS OF THE MOST ACTIVE SOCIAL MEDIA PLATFORMS



TOTAL NUMBER
OF ACTIVE SOCIAL
MEDIA USERS



150.0
MILLION

ACTIVE SOCIAL MEDIA
USERS AS A PERCENTAGE
OF TOTAL POPULATION



56%

TOTAL NUMBER OF ACTIVE
SOCIAL USERS ACCESSING
VIA MOBILE DEVICES



130.0
MILLION

ACTIVE MOBILE SOCIAL
USERS AS A PERCENTAGE
OF THE TOTAL POPULATION



48%



Senin 22 Juli 2019, 19:47 WIB

'Tuyul' Ojol Bikin Order Fiktif demi Poin, Go-Jek Rugi Rp 500 Juta

Adhi Indra Prasetya - detikNews

NEWS

Sabtu, 27 Safar 1441 / 26 Oktober 2019

HOME POLITIK HUKUM PENDIDIKAN UMUM NUSANTARA JABODETABEK NEWS ANALYSIS UMM UBSI TELK

Home > News > Nasional

Polisi Bongkar Komplotan Order Gofood Fiktif

Jumat 25 Okt 2019 14:49 WIB

Rep: Dadang Kurnia/ Red: Friska Yolanda

detikNews / Berita-jawa-timur / Detail Berita

Follow detikcom    

2019/10/25 16:53:47 WIB

Manfaatkan Cashback, Belang 3 Penipu Order Fiktif Jual Beli Online Ketahuan

Deny Prastyo Utomo - detikNews

    13 komentar

Halaman 1 dari 2



Pinjol Jangan Terjebak, 168 Pinjaman Online Baru Saja Diblokir

Pinjaman online yang beroperasi secara ilegal terus bermunculan. Hati-hati sampai bertransaksi dengan mereka.

Subyanto - Kamis, 14 Maret 2019 | 22:08 WIB




MODUS PINJOL DAN PEMINJAM

- Pinjol yang menagih pinjamannya kepada teman sekantor.
- bunga pinjaman yang sangat besar di "Pinjol DR"
- Pinjol yang sangat besar di "Pinjol RN"
- menagih pinjamannya kepada mertuanya.

Seluruh data pribadi diambil dari handphone milik peminjam.

Penagihan dilakukan tidak hanya kepada peminjam saja, melainkan kepada seluruh

JAHATNYA PINJAMAN

Home / News / Regional

Kecanduan Game Online, Puluhan Pelajar Diobati di Rumah Sakit Jiwa Solo

Kompas.com - 18/10/2019, 06:38 WIB



Terungkap Penyalahgunaan Data Pendudukan untuk Registrasi SIM Card Prabayar, Begini Cara Operasinya

Selasa, 12 November 2019 15:56

Penipuan Online, Kejahatan Siber yang Paling Banyak Dilaporkan

Direktorat Tindak Pidana Siber (Dittipidsiber) Bareskrim Polri menerima 3.130 laporan kasus kejahatan siber sepanjang Januari-Juli 2019. Laporan soal penipuan online paling mendominasi, yakni sebanyak 1.243 kasus. Selain itu, masyarakat melaporkan kejahatan siber berupa penyebaran konten provokatif (1.136 kasus), pornografi (198 kasus), akses ilegal (153 kasus), dan peretasan sistem elektronik (126 kasus). Kejahatan siber ini dibedakan menjadi dua kelompok, yaitu computer crime (komputer sebagai alat utama) dan computer-related crime (komputer sebagai alat bantu). Dari total kasus kejahatan siber yang dilaporkan, sebanyak 441 kasus diterima melalui situs Patroli Siber. Ratusan kasus ini telah menimbulkan kerugian sebesar Rp 363,9 juta. (Baca: Berapa Kerugian yang Ditimbulkan Kejahatan Dunia Maya?)

Penipuan Lewat Instagram, Polres Bogor Langsung Tangani

Jumat 15 Nov 2019 21:16 WIB

Rep: ayobandung.com/ Red: ayobandung.com

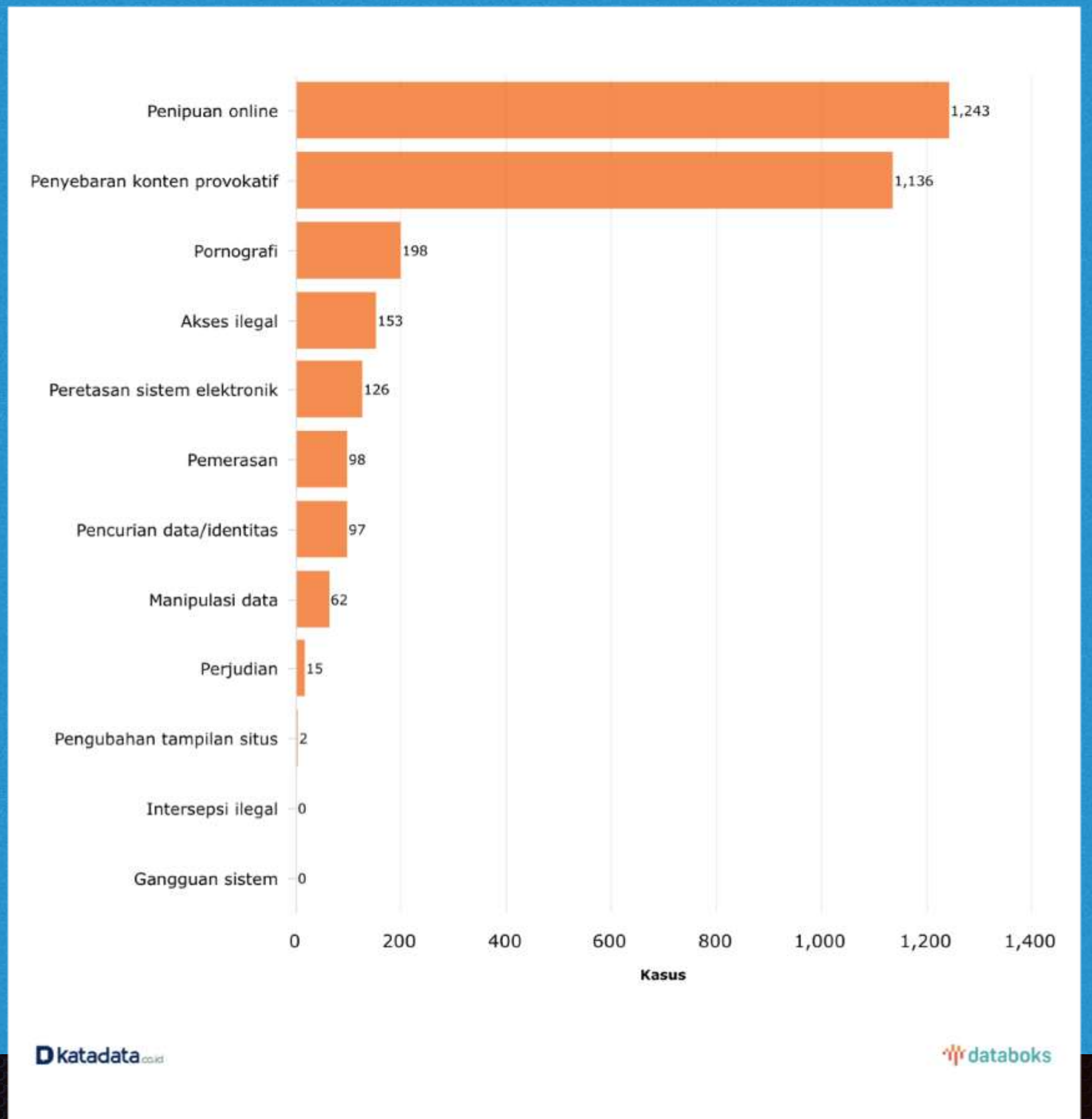
KEUANGAN / FINTECH

Kenali 17 fintech baru terdaftar di OJK agar terhindar dari jeratan fintech ilegal

Minggu, 10 November 2019

Kasus Penipuan Gunakan Bukti Transfer Palsu Sedang Marak, Ini Imbuan dari OJK

Senin, 11 November 2019 01:00 WIB



Menanti kelahiran "Komite Data Elektronik"

Oleh D.Dj. Kliwantoro © Sabtu, 16 November 2019 09:01 WIB

Jadi Prioritas, Amankan Pusat Data di Dalam Negeri

Koran Sindo

Sabtu, 16 November 2019 - 06:35 WIB

Home > Ekonomi > Ekonomi

Jenius-Blibli Kolaborasi Ajak Pengguna Jaga Keamanan Data

Senin 11 Nov 2019 06:30 WIB

Rep: Silvy Dian Setiawan/ Red: Gita Amanda

Mozilla Foundation
**INTERNET HEALTH
REPORT 2019**

Five issues that will determine the future of Internet Health

1

Privacy & Security

2

Openness

3

Decentralization

4

Digital Inclusion

5

Web Literacy

<https://foundation.mozilla.org/en/internet-health/>





HOW DOES IT WORK?



Vulnerabilities :

Information Sharing

Monitoring activities

Membobardir Iklan

Malware

Contact Sharing

Koleksi Informasi Pribadi

Spam

Bahkan pengumpulan informasi DNA yang (akan) semakin banyak di masa depan punya pontensi ancaman keamanan



HOW DOES IT WORK?



Understand The Process

Home / Otomotif / News

Memahami Fungsi Lampu "Hazard" Sesungguhnya

Kompas.com - 23/03/2014, 15:38 WIB

BAGIKAN:  

[Komentar](#)



Home > Teknologi > Berita Otomotif

EDUKASI & FITUR


Salah Kaprah Penggunaan Lampu 'Hazard'

CNN Indonesia | Senin, 29/10/2018 23:20 WIB

Bagikan:  

Home > Otomotif > Tips & Trik

4 Dosa Besar Pengemudi Menyalakan Lampu Hazard

 Herdi Muhardi
17 Jan 2018, 06:00 WIB

    Share **3.8k**

Street Manners: Banyak yang Gagal Paham, Ini 4 Kesalahan Penggunaan Lampu Hazard

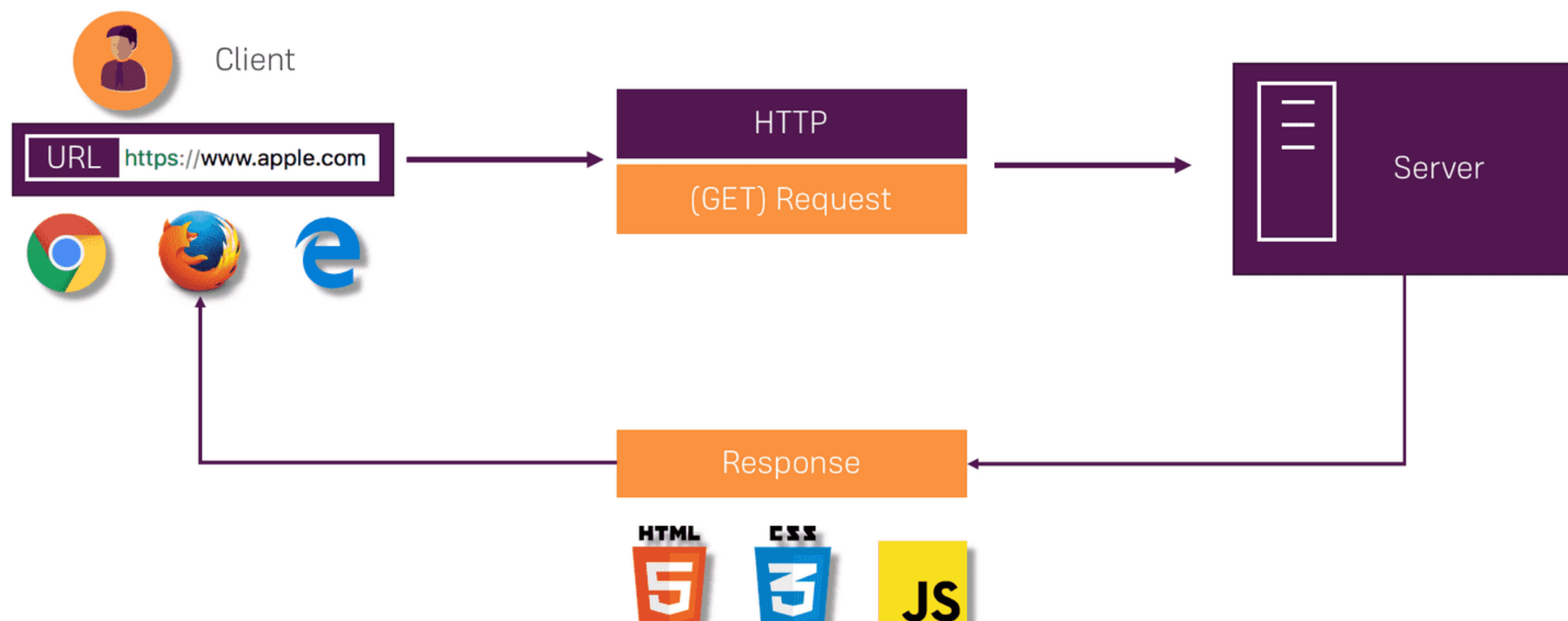
Latifa Alfira Ulya - Sabtu, 15 Juni 2019 | 07:45 WIB





HOW DOES IT WORK?

How does the web work?



Astalavista.box.sk - daily updated search engine for computer security related material.



NEW! Get your own @gambling.com e-mail address!

- Use [this page](#) to add your site to the engine.
- How to [add Astalavista search](#) to your page.

Enter one or more words to search for. If you want to specify more than one word, use a space as a separator. Example : security linux for all topics dealing with both security and linux.

To access Yahoo! Mail... you need a Yahoo! ID.

Don't have a Yahoo! ID? Signing up is easy.

[Sign up for Yahoo!](#)

Already have a Yahoo! ID? Sign in.

Yahoo! ID:

Password:

Remember my ID on this computer

To access Yahoo! Mail... you need a Yahoo! ID.

Don't have a Yahoo! ID? Signing up is easy.

[Sign up for Yahoo!](#)

Already have a Yahoo! ID? Sign in.

Yahoo! ID:

Password:

Remember my ID on this computer

[Sign In](#)

New Submits over SSL

[Forget your ID or password?](#)
[Sign-in help](#)

Prevent Password Theft

Don't have a Yahoo! ID? Signing up is easy.

[Sign up for Yahoo!](#)

Already have a Yahoo! ID? Sign in.

Yahoo! ID:

Password:

Keep me signed in for 2 weeks unless I sign out. **New!**
[Uncheck if on a shared computer]

[Sign In](#)

[Forget your ID or password?](#) | [Help](#)

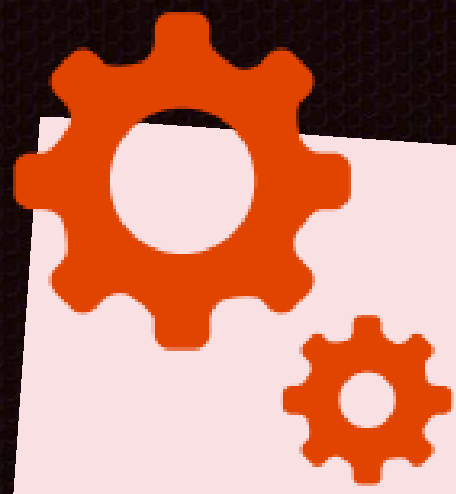
Gunakan akun Yahoo Anda

Alamat email

[Berikutnya](#)

Tetap sign in [Bermasalah sign in?](#)

[Buat account](#)



HOW DOES IT WORK?

How it works

We have developed an advanced artificial intelligence algorithm that allows you to remove clothes from photos.



Step 1: Select a picture



Step 2: Crop the picture



Step 3: Nude it!

<https://www.theguardian.com/technology/2019/feb/14/elon-musk-backed-ai-writ>

Community Forums Blog News

New AI fake text generator may be too dangerous to release, say creators

The Elon Musk-backed nonprofit company OpenAI declines to release research publicly for fear of misuse



et in China after being fed the opening line of Nineteen Eighty-Four by
ondadori/Getty Images

Fake News
Fake Msg
Fake Pics
Fake Vids
Fake Text
Etc





HOW DOES IT WORK?

Deepfakes, biased AI and addiction by design*

BBC Sign in News Sport Reel Worklife Travel Future More

NEWS

Home Video World Asia UK Business Tech Science Stories Entertainment & Arts

Technology

'Racist' AI art warns against bad training data

By Alli Shultes
Technology reporter

17 September 2019

BUSINESS INSIDER SINGAPORE TRENDING NEWS TECH INSIDER FINANCE CAREER

Microsoft apologizes for its racist chatbot's 'wildly inappropriate and reprehensible words'

NEWS INNOVATION SCIENCE INDUSTRY HOW-TO VIDEOS SHOP MORE

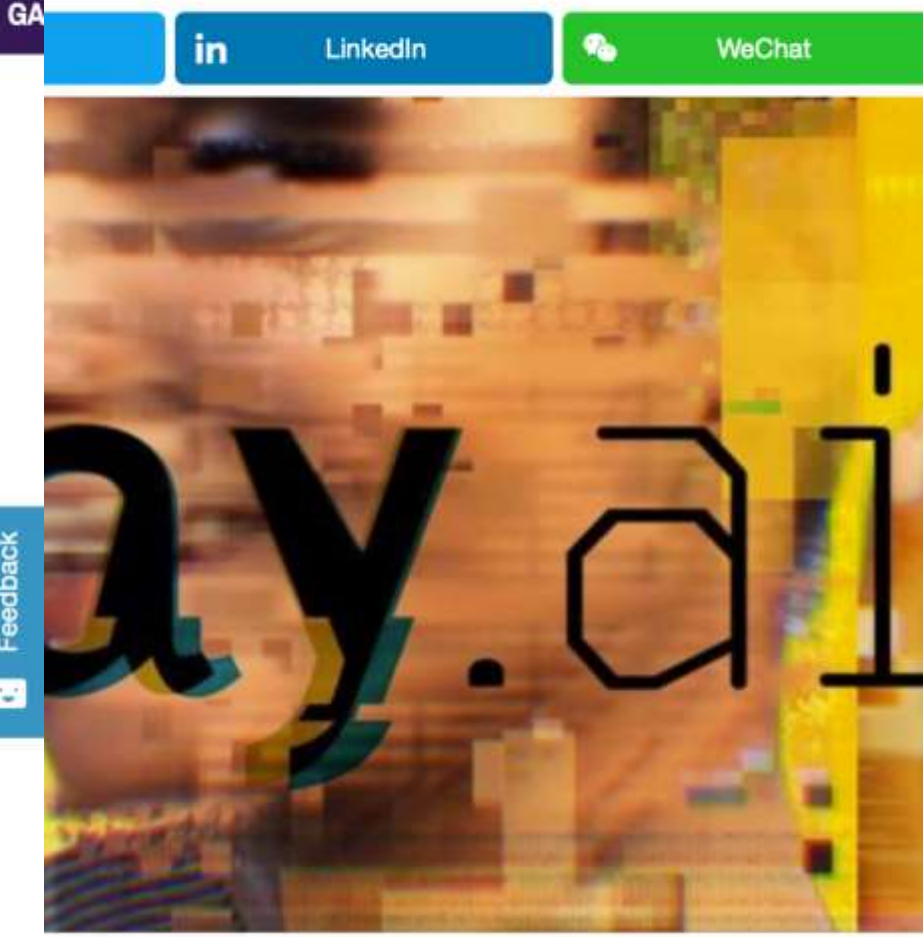
ADVERTISEMENT

KWK RESISTORS PRESENTING THE WORLD'S THINNEST WIRE WOUND POWER RESISTOR SERIES

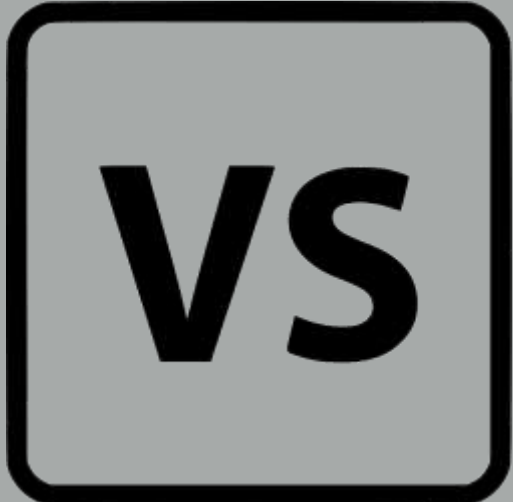
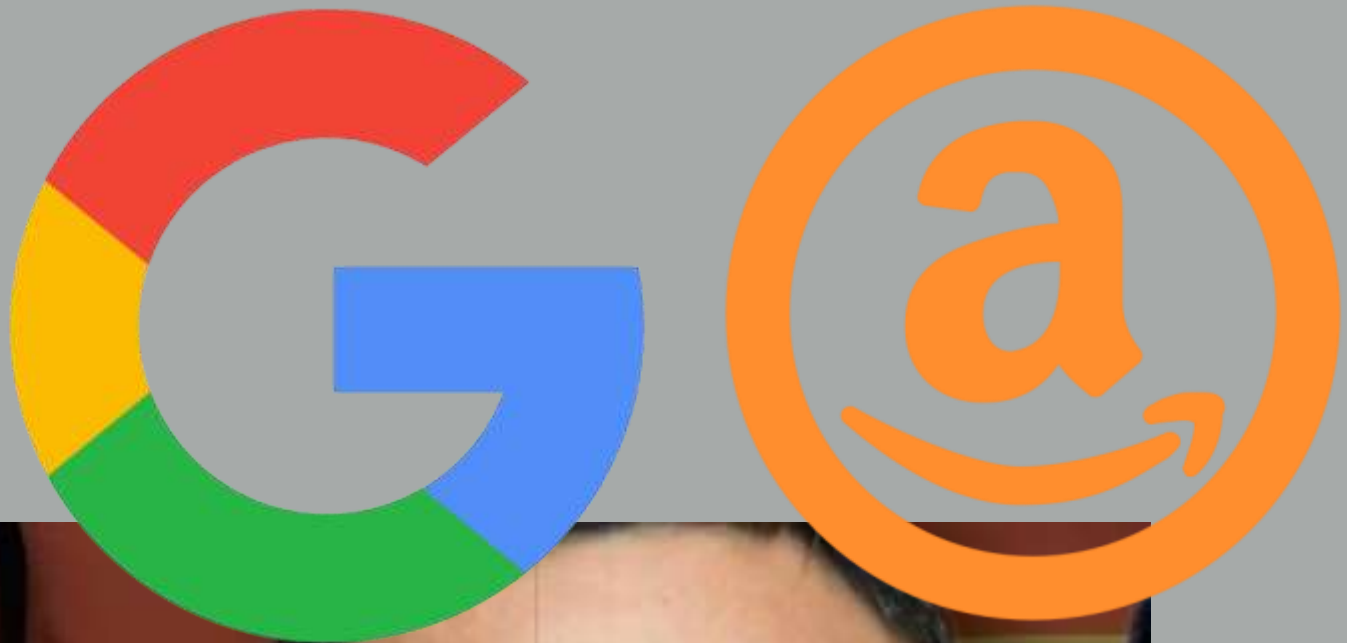
EXPLORE MORE

More at Interesting Engineering

ENERGY & ENVIRONMENT AUTONOMOUS CARS DESIGN



Data Digital War



Data Digital War



THE CHINESE GOVERNMENT HAS ANNOUNCED AMBITIOUS PLANS TO ESTABLISH A NATIONAL SOCIAL CREDIT SCORING SYSTEM FOR ALL CITIZENS. WHAT PRODUCTS SERVING PLANS, AND HOW DOES IT FIT INTO THE TARGET FOR A CREDIT SYSTEM?



South China Morning Post

DAVOS 2019

How China Is Using “Social Credit Scores” to Reward and Punish Its Citizens

By Charlie Campbell / Chengdu



Vi Tingyue has a lot going for her. She won a scholarship to China’s prestigious Sichuan University, where she graduated with a master’s in

The Observer
Technology

Why you should worry if you have a Chinese smartphone

China’s use of technology for social control of its citizens is extensive - but it could affect users elsewhere too, says security analyst Samantha Hoffman

Ian Tucker

Sat 26 Oct 2019 16.00 BST



747

China

Why US businesses should be worried about China’s corporate social credit system

© vectors.co.nz

- Though it hasn’t been fully implemented, the system could affect international firms to
- Punishments could impact

INTERNATIONAL POLICY DIGEST ABOUT US WRITE FOR US CONTACT US ADVERTISE MASTHEAD

WORLD NEWS / 24 OCT 2019

Felix Imonti

China’s Social Credit Tyranny with American Characteristics



For China, technology is a weapon that is to be used to dominate the world. A number of American high-tech corporations are helping China to achieve the objective.

Long before Xi Jinping introduced in 2014 the Social Credit system that is supposed to be fully functioning by 2020, a forerunner existed for more than a century in the United States. The early form of what is a credit bureau appeared in 1899 under the name of the Retail Credit Company to be rebranded Equifax in





Digital Competencies

Top 10 skills

in 2020

1. Complex Problem Solving
2. Critical Thinking
3. Creativity
4. People Management
5. Coordinating with Others
6. Emotional Intelligence
7. Judgment and Decision Making
8. Service Orientation
9. Negotiation
10. Cognitive Flexibility

 <p>Adaptability</p>	 <p>Business acumen</p>	 <p>Collaboration/ synergy</p>
 <p>Decisiveness</p>	 <p>Design thinking</p>	 <p>Digital dexterity</p>
 <p>Outcome-driven</p>	 <p>Political savviness</p>	 <p>Risk-taking</p>
 <p>Diversity mindset</p>	 <p>Growth mindset</p>	 <p>Innovative</p>

<https://www.gartner.com/en/publications/future-it-workforce>

Additional skills that you will need to succeed in 2020.

- Learning how to learn.
- Speed reading and reading intelligently.
- Note-taking.
- **Analyzing information.**
- **Spotting patterns and trends.**
- Communicating – written and oral.
- **Understanding and leveraging technology.**
- Cultural awareness and sensitivity.



KURIKULUM

Hadapi Revolusi Industri 4.0, Mendikbud akan rancang ulang kurikulum

Rabu, 2 Mei 2018 13:44

Reporter : [Hari Ariyanti](#)



174

SHARES

Kemenristekdikti: Perguruan tinggi harus respon cepat perubahan

© Rabu, 4 September 2019 16:36 WIB

“*adopsi teknologi informasi untuk meningkatkan layanan pendidikan dan penguatan pembelajaran jarak jauh*”

Jakarta (ANTARA) - Kementerian Riset, Teknologi dan Pendidikan Tinggi (Kemenristekdikti) menyatakan perguruan tinggi harus merespon cepat perubahan yang ada saat ini untuk memenangkan kompetisi.

"Perguruan tinggi harus melakukan reorientasi kurikulum di setiap program studinya yang disesuaikan dengan kebutuhan industri 4.0 dan mengembangkan kapasitas literasi baru seperti data, teknologi dan manusia, yang diarahkan untuk menunjang sistem pembelajaran," ujar Direktur Jenderal Pembelajaran dan Kemahasiswaan Kemenristekdikti, Prof Ismunandar, saat menghadiri peringatan Dies Natalis Universitas Terbuka di Pondok Cabe, Tangerang Selatan, Banten, Rabu.

PROF. MULYASA: KURIKULUM 2013 REVISI MENJAWAB TANTANGAN REVOLUSI INDUSTRI 4.0

Kurikulum 2013 Revisi mengintegrasikan empat hal penting dalam pengimplementasiannya, yaitu penguatan pendidikan karakter (PPK), Literasi, *High Order Thinking Skills (HOTS)*, dan Keterampilan Abad 21, yakni *communication, collaboration, critical thinking and problem solving*, dan *creativity and innovation*. Diharapkan ke depannya dengan pengitegrasian empat hal tersebut dapat menghasilkan para lulusan yang memiliki kemampuan dalam menjawab tantangan zaman, kecerdasan dalam menyikapi berbagai macam keadaan, beriman dan bertakwa kepada Tuhan, serta bertanggungjawab, pada era Revolusi Industri 4.0.

"Kurikulum 2013 Revisi mengintegrasikan PPK, Literasi, dan Keterampilan Abad 21 diharapkan dapat menjawab tantangan zaman yang sangat dinamis, apalagi pada era Revolusi Indusrti 4.0 ini," pungkas Prof. Mulyasa.

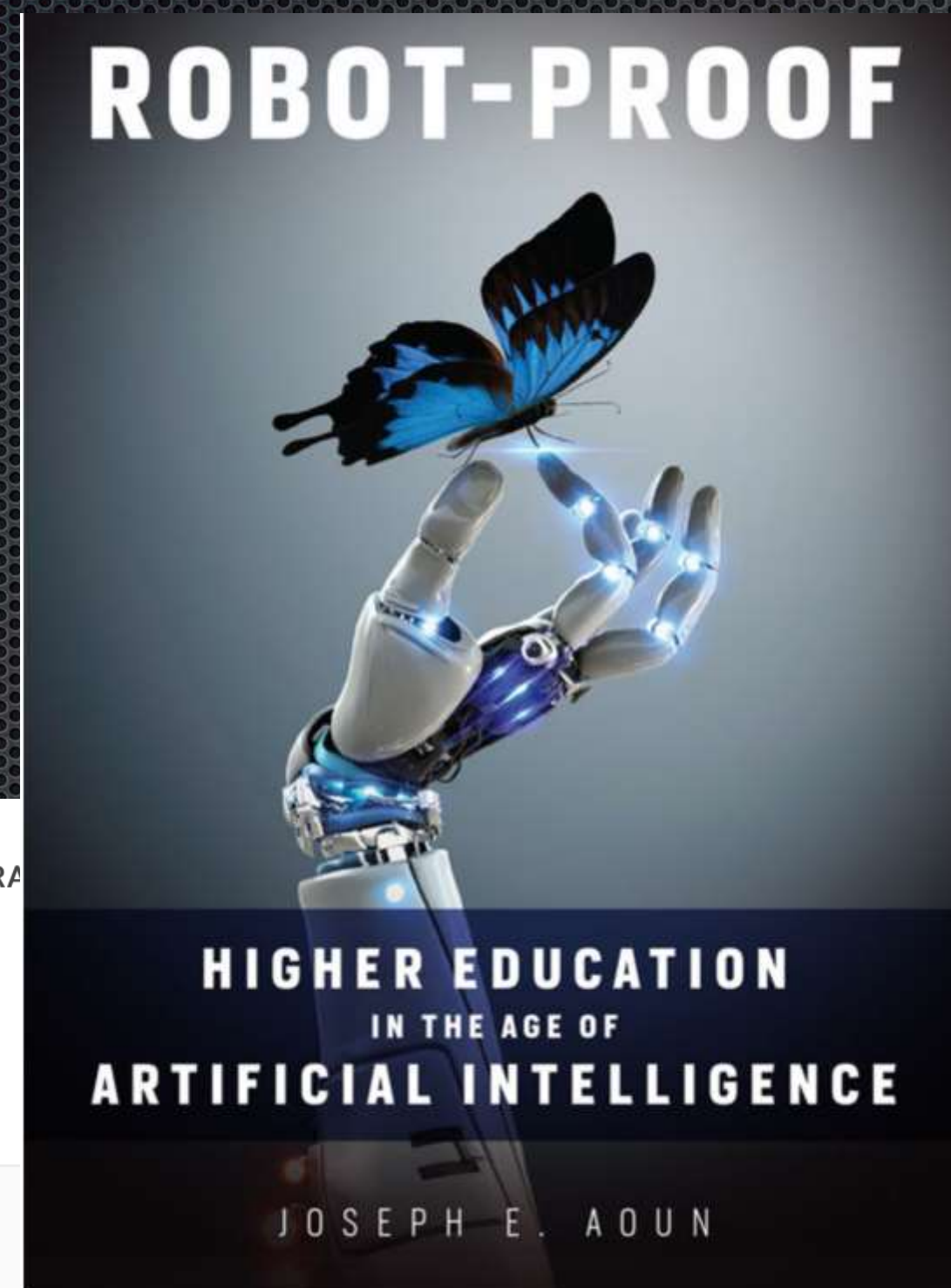
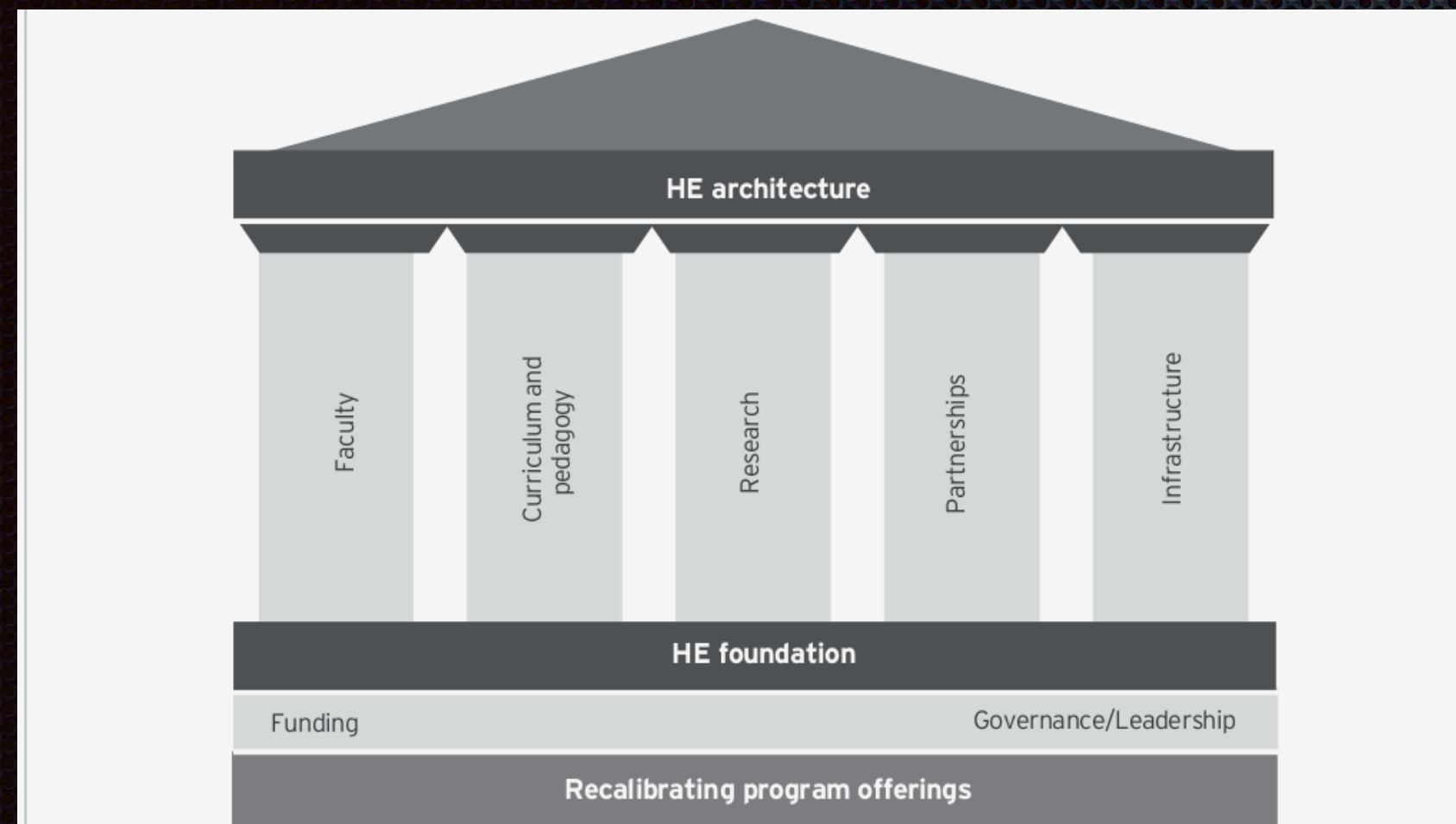
4 Usulan Pakar UPI kepada Nadiem dalam Membongkar Kurikulum

Reporter: [Anwar Siswadi \(Kontributor\)](#)

Editor: [Yudono Yanuar](#)

Kamis, 7 November 2019 06:00 WIB

KURIKULUM



PENUTUP

Kurikulum Pendidikan Tinggi (KPT) sesungguhnya mencerminkan spirit, kesungguhan, dan tanggung jawab para pendidik untuk menyajikan pembelajaran secara profesional untuk melahirkan lulusan yang bermutu, dan yang mampu beradaptasi dengan lingkungannya, khususnya di era Industri 4.0. Kurikulum Pendidikan Tinggi merupakan amanah institusi yang harus senantiasa diperbaharui sesuai dengan perkembangan kebutuhan dan IPTEK yang dituang dalam Capaian Pembelajaran Lulusan.

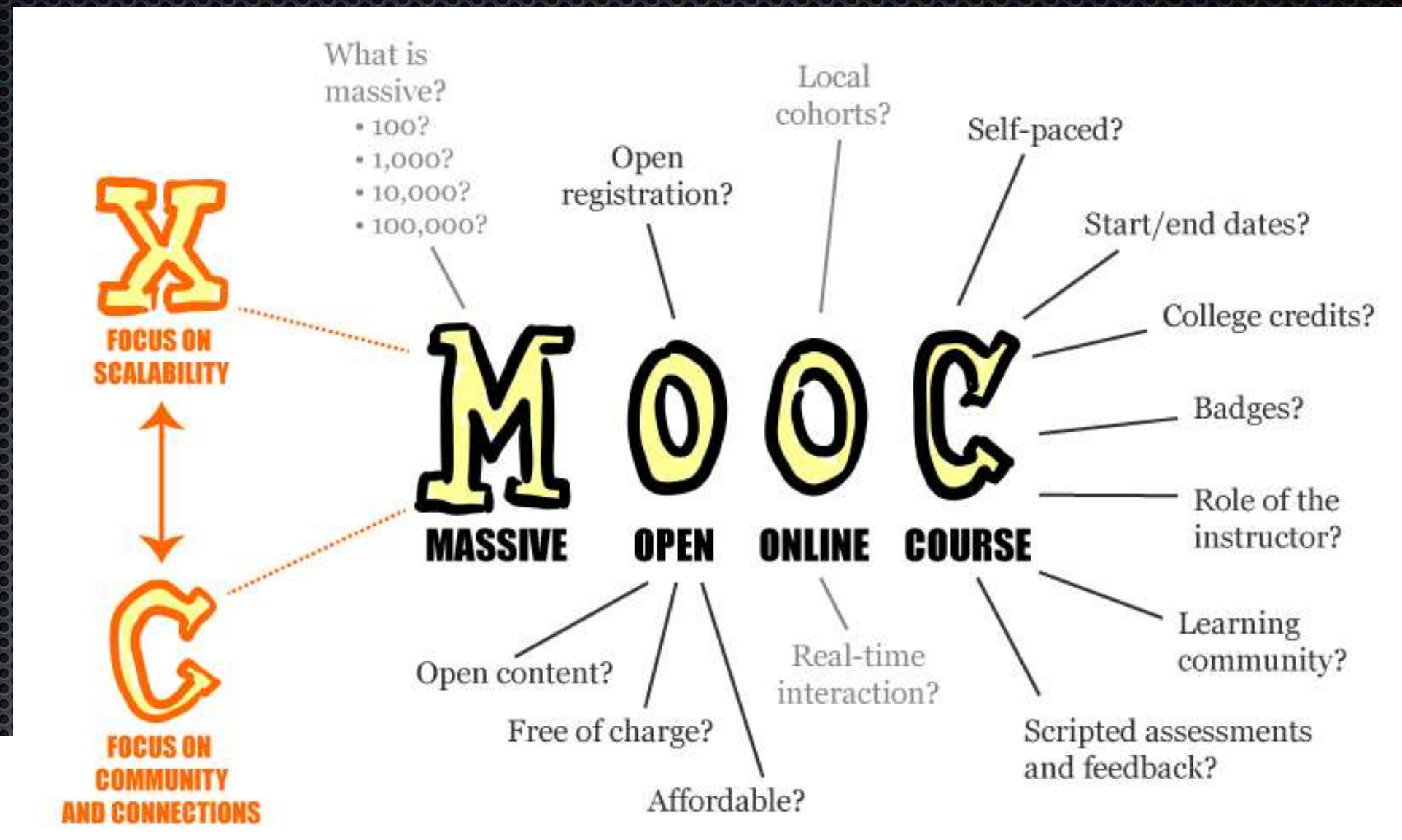
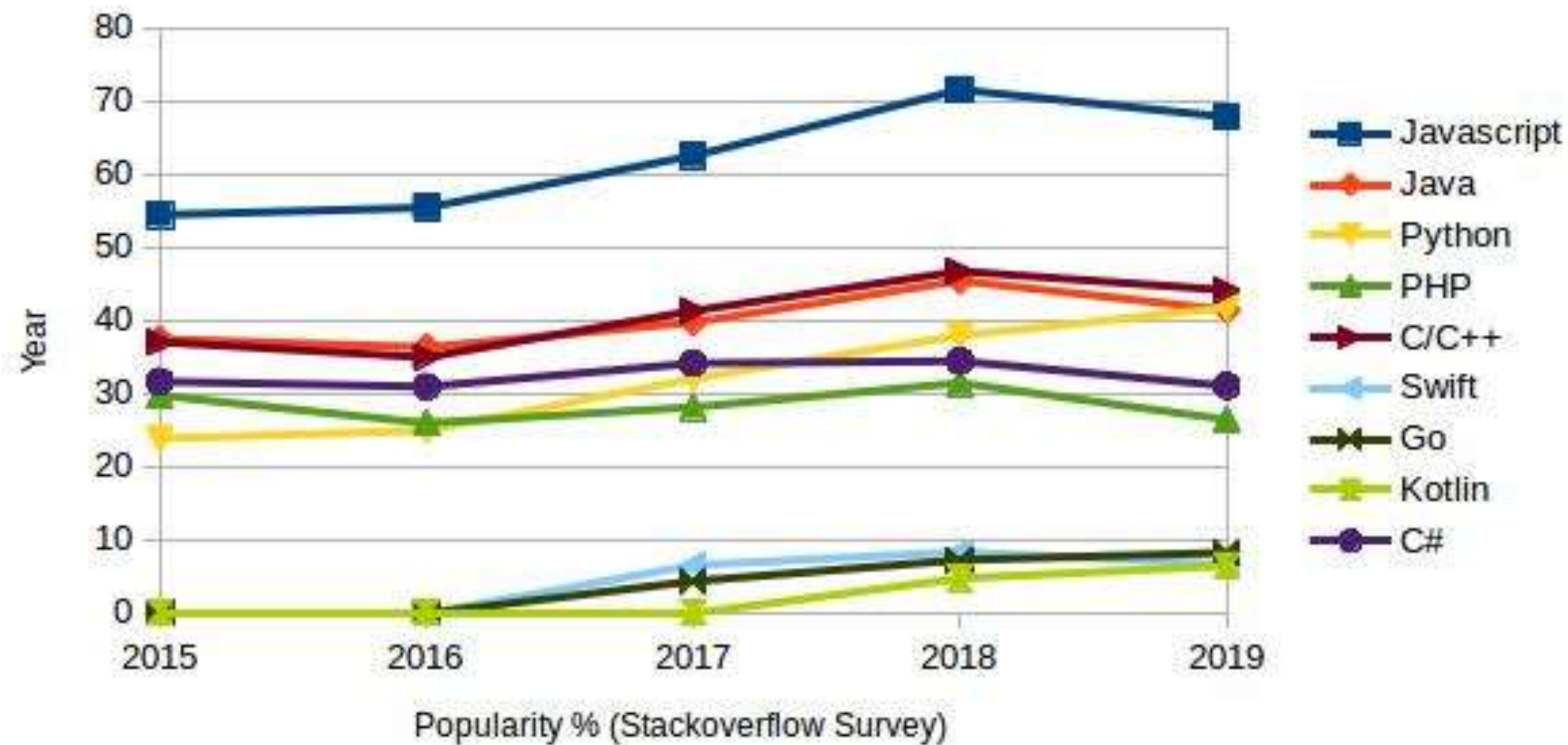
Pendidikan Tinggi Perlu Kembangkan Kurikulum di Era Revolusi Industri 4.0

KURIKULUM

10 Best Programming Languages to Learn in 2020

A developer's list of the programming languages you probably want to start learning in 2019/2020

Programming Language Popularity (2015-19)



Class Central's Top 100 MOOCs of All Time (2019 edition)

Dhawal Shah Aug 19th, 2019

CLASS CENTRAL

Data

REVOLUTION

(R)EVOLUSI

DATA IS CHANGING THE WORLD

Now what the heck do I do about it?



Katarzyna Szymielewicz *

Your digital identity has three layers, and you can only protect one of them



First

What you feed into Net



Second
Behavioral
Analysis



Third

Interpretation



Education



Knowledge



Love



Friendship



Wisdom

Thank
You