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VTCP 2021: LAW AND THE PROLIFERATION OF BIG DATA,
UNIVERSITAS ISLAM INDONESIA, 25 NOVEMBER 2021

BIG DATA, PRIVACY AND THE LAW

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International Islamic University Malaysia

FACULTY OF LAW

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA
Garden of Knowledge and Virtue

YsU 영산대학교
Youngsan University

INTERNATIONAL VIRTUAL TEACHING COLLABORATION PROGRAM

VTCP2021

Law and the Proliferation of Big Data

Thursday, 25th of November 2021 | **Time : 19.00 – 20.30 IWT (GMT +7)**

Assoc. Prof. Sonny Zulhuda, LLB., MCL., Ph.D.
Associate Professor at Faculty of Law
International Islamic University Malaysia
▸ "Big Data, Privacy, and the Law"

Prof. Dr. Budi Agus Riswandi, S.H., M.Hum.
Professor at Faculty of Law Universitas Islam Indonesia
▸ "Big Data and the Challenges of Indonesian Legal System"

Agenda

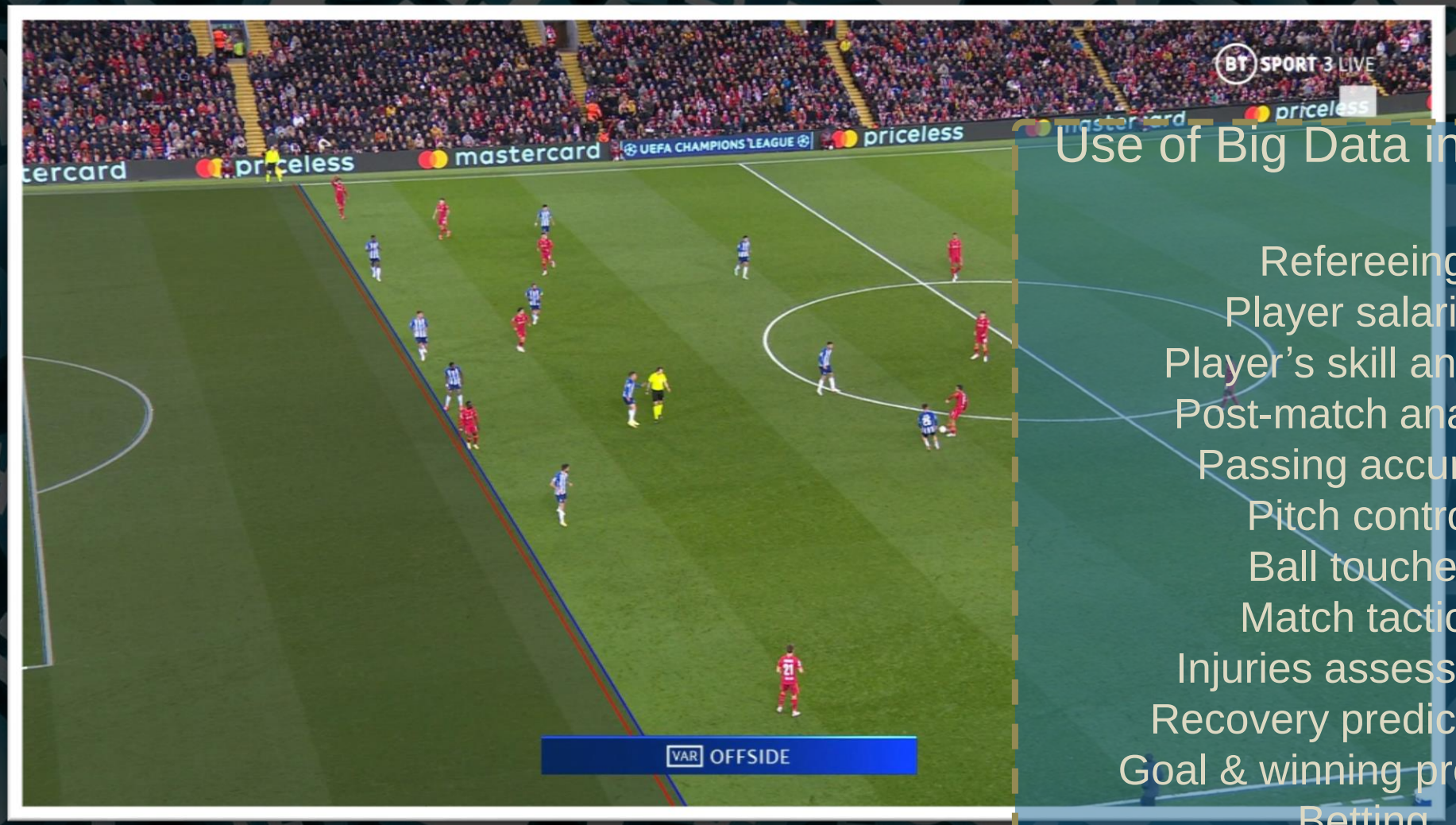
01 Datafication

02 Big Data

03 Legal Issues

04 Legal Framework

VAR data in today's match Liverpool vs Porto



Use of Big Data in Football:

Refereeing
Player salaries
Player's skill analysis
Post-match analysis
Passing accuracy
Pitch control
Ball touches
Match tactics
Injuries assessment
Recovery predictability
Goal & winning probability
Betting
Social media interactions

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RAINING?
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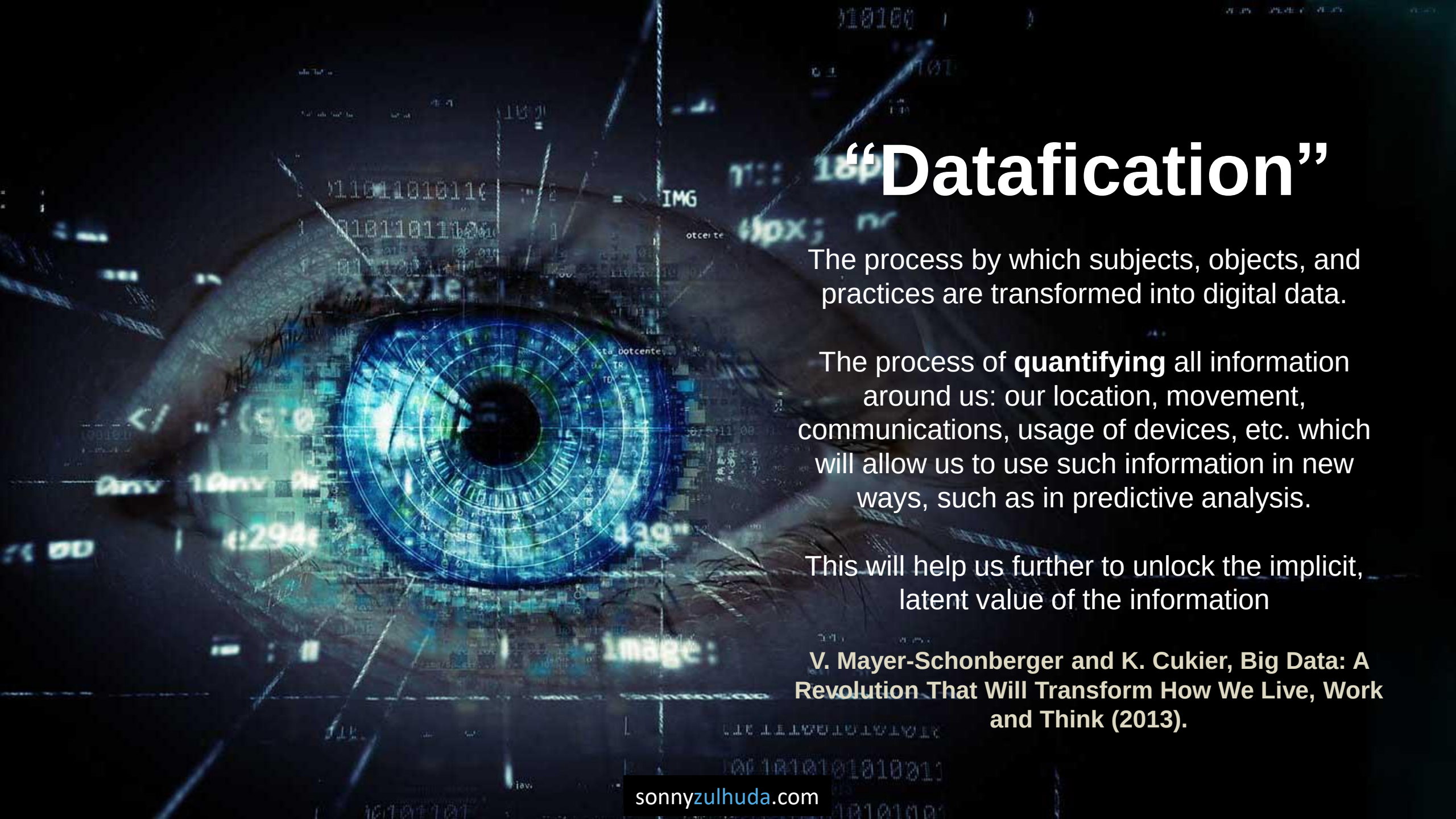

“Datafication”

The process by which subjects, objects, and practices are transformed into digital data.

The process of **quantifying** all information around us: our location, movement, communications, usage of devices, etc. which will allow us to use such information in new ways, such as in predictive analysis.

This will help us further to unlock the implicit, latent value of the information

V. Mayer-Schonberger and K. Cukier, Big Data: A Revolution That Will Transform How We Live, Work and Think (2013).

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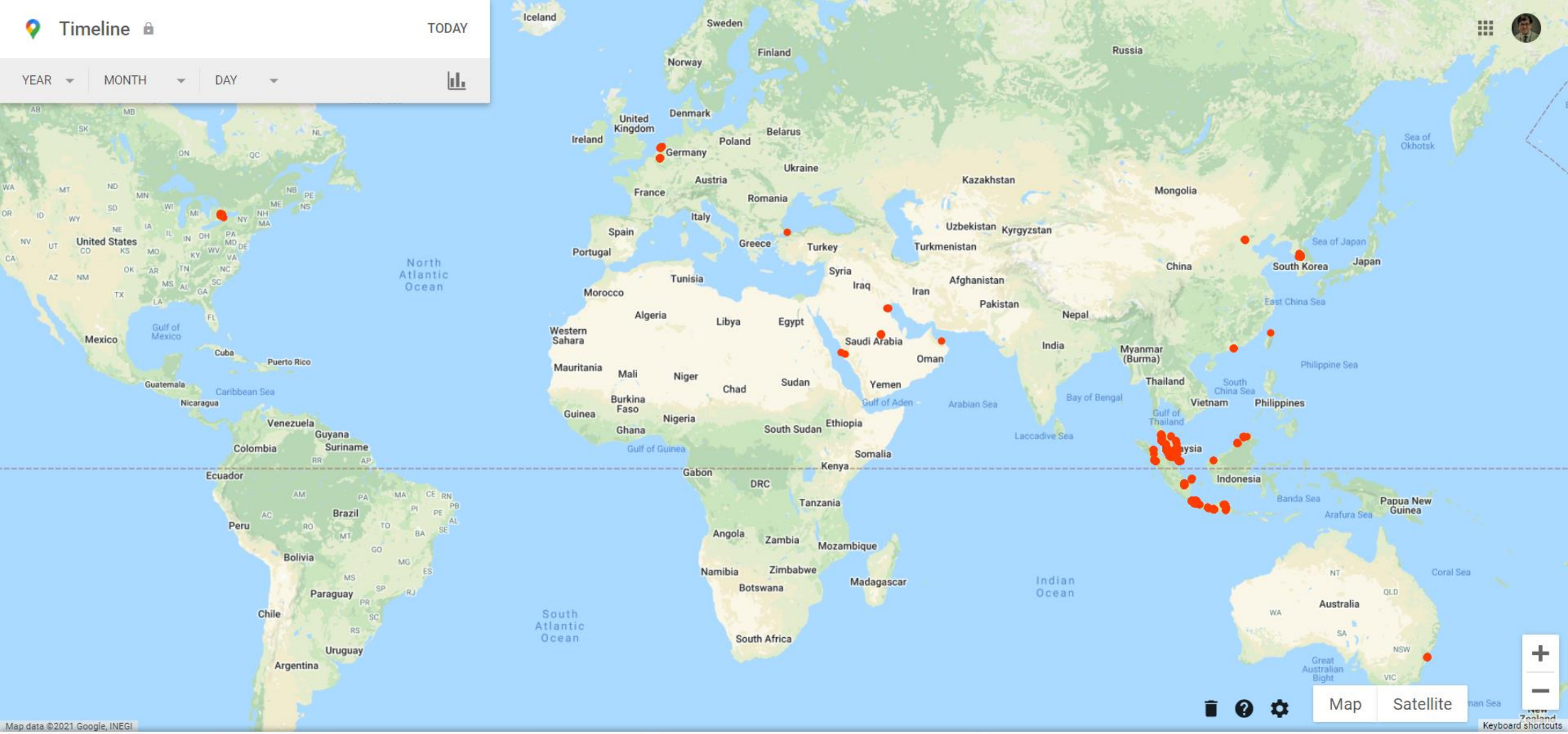

1,222 places

See your most visited places and all of the places you've been based at on your Location History

Port Dickson

Location History is on

Your location is reported by your mobile device and only you can see it.

MANAGE LOCATION HISTORY

Home and work

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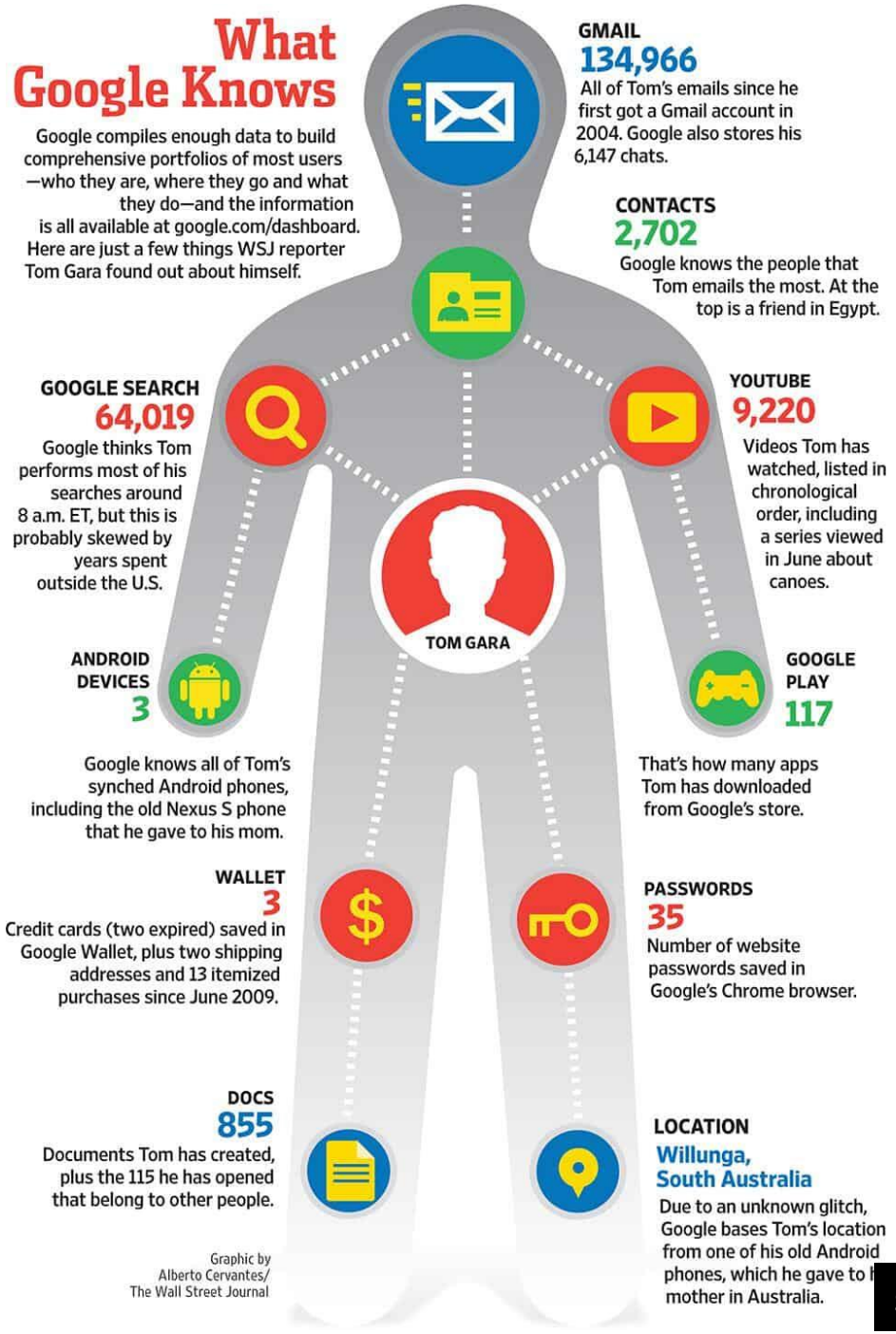
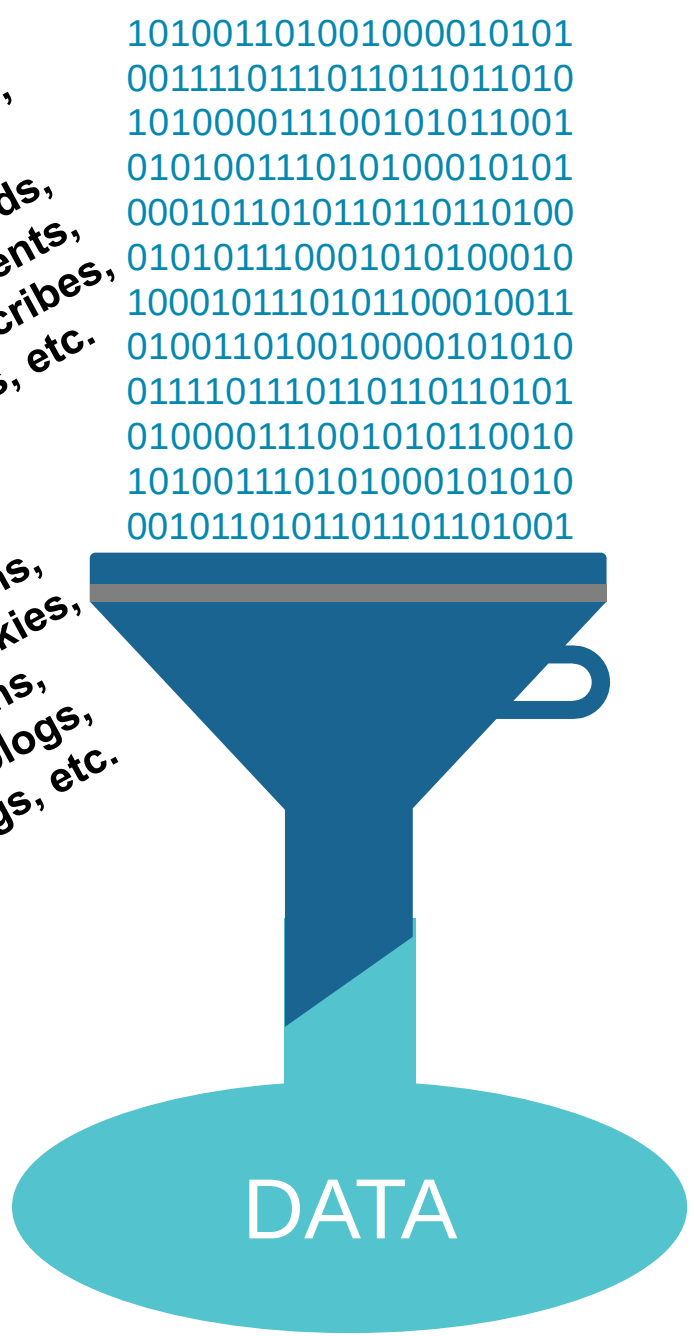
DATAFICATION



Social media posts, likes, loves, mentions, threads, shares, comments, follows, subscribes, emoticons, etc.

Travels, locations, wearables, cookies, transactions, pictures, blogs, vlogs, logs, etc.



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DATAFICATION

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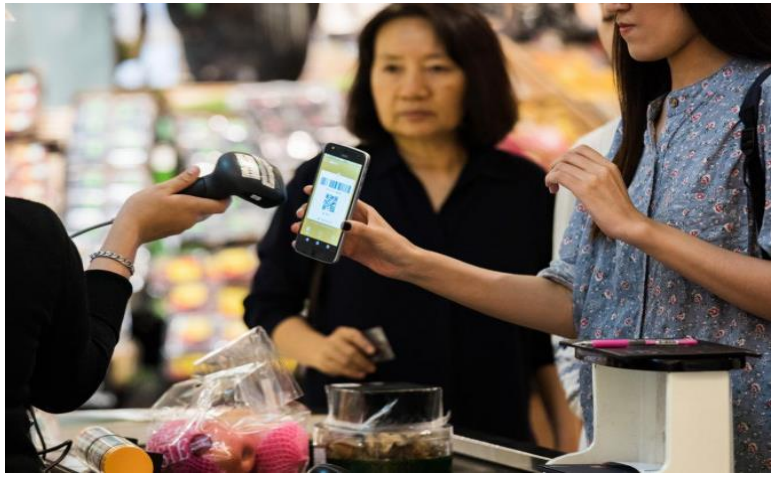
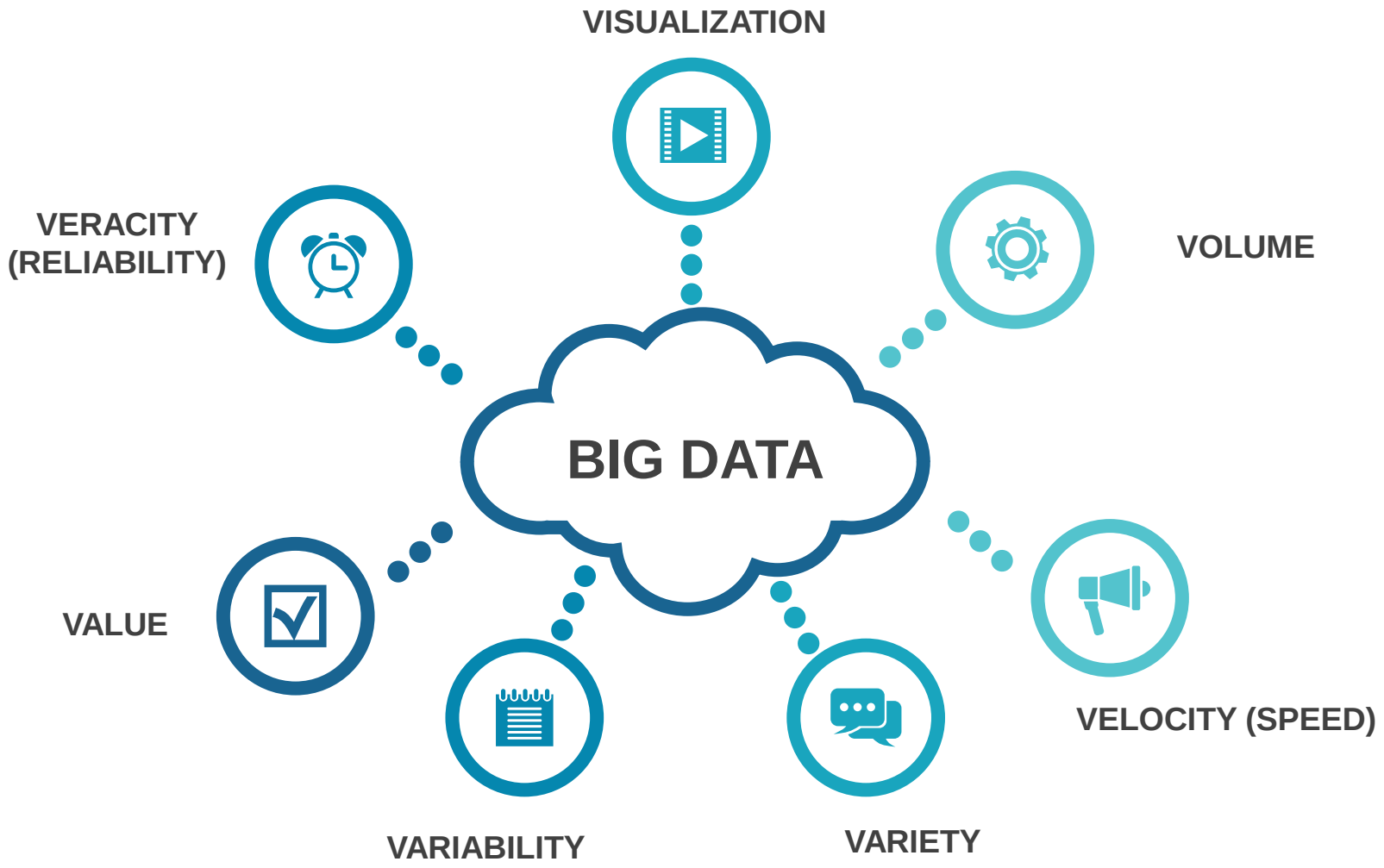


What is Big Data?

"Big Data is an expression that typically refers not only to specific, large datasets, but also to data collections that consolidate many datasets from multiple sources, and even to the techniques used to manage and analyze the data"

M. R. Wigan and R. Clarke, IEEE Computer 46 (2013)



Big Data: The Islamic Worldview

(2:31) Then Allah taught Adam the names of all things and presented them to the angels and said: "If you are right (that the appointment of a vicegerent will cause mischief) then tell Me the names of these things.

وَعَلَّمَ ءَادَمَ ٱلْأَسْمَآءَ كُلَّهَا ثُمَّ عَرَضَهُمْ عَلَى ٱلْمَلَٰٓئِكَةِ فَقَالَ أَنۢبِـُٔونِى بِأَسْمَآءِ هَٰٓؤُلَآءِ إِن كُنتُمْ صَٰدِقِينَ

AL-BAQARAH: 31

(39:9) … Ask them: "Are those who know equal to those who do not know?" Only those endowed with understanding take heed.

قُلْ هَلْ يَسْتَوِي الَّذِينَ يَعْلَمُونَ وَالَّذِينَ لَا يَعْلَمُونَ إِنَّمَا يَتَذَكَّرُ أُوْلُوا الْأَلْبَابِ

AZ-ZUMAR: 9

BIG DATA - *The Islamic Worldview*

Data as a Privilege

To be utilized in accordance with its beneficial functions, for the benefit of self and others.

Data as a Trust

Not to be abused, misused, overused and underused.

Data as a Test

To be accountable for in this world and hereinafter

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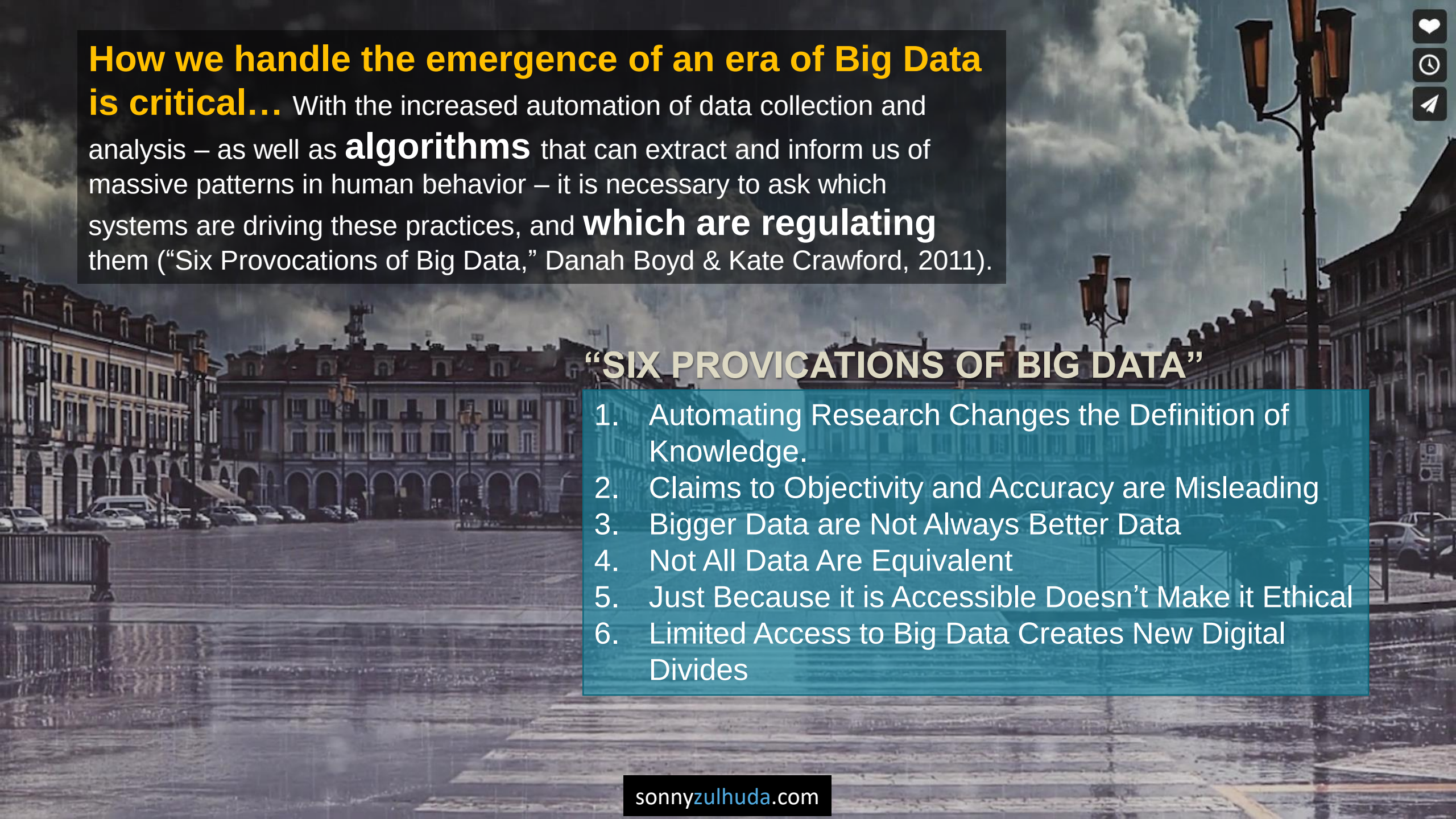
The more we use the contemporary digital network, the less economic value it is bringing to us!

Rather than generating more jobs, this digital disruption causes structural unemployment crisis.

Rather than creating more competition, it has created immensely powerful new monopolists like Google and Amazon.

Rather than creating transparency and openness, **the Internet is creating a panopticon of information-gathering and surveillance services** in which people are packaged as an all-too-transparent product.

Andrew Keen (2015): “The Internet is Not the Answer”

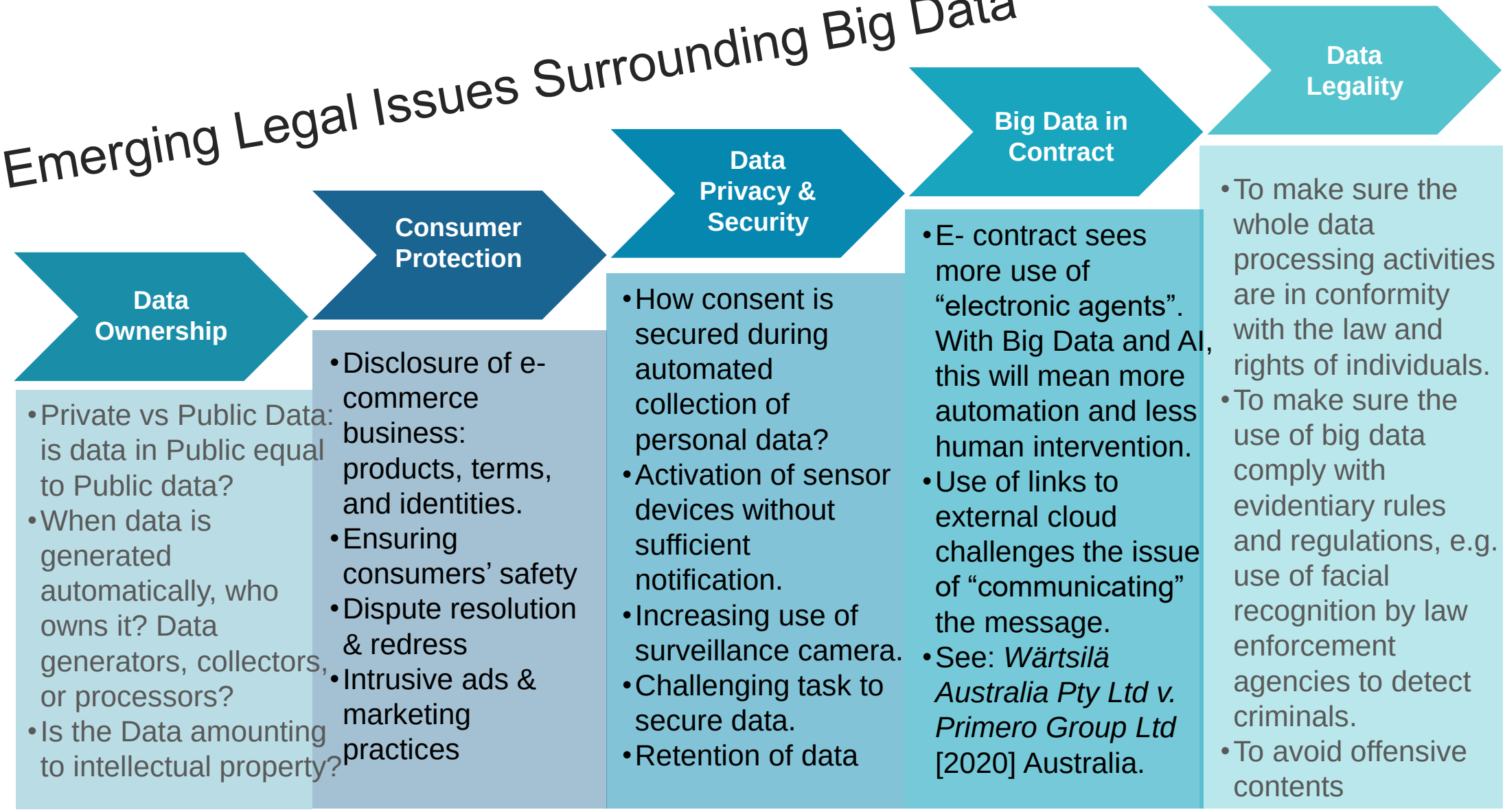


How we handle the emergence of an era of Big Data is critical… With the increased automation of data collection and analysis – as well as **algorithms** that can extract and inform us of massive patterns in human behavior – it is necessary to ask which systems are driving these practices, and **which are regulating** them ("Six Provocations of Big Data," Danah Boyd & Kate Crawford, 2011).

"SIX PROVICATIONS OF BIG DATA"

1. Automating Research Changes the Definition of Knowledge.
2. Claims to Objectivity and Accuracy are Misleading
3. Bigger Data are Not Always Better Data
4. Not All Data Are Equivalent
5. Just Because it is Accessible Doesn't Make it Ethical
6. Limited Access to Big Data Creates New Digital Divides

Emerging Legal Issues Surrounding Big Data



Algorithmic Failures

Potentially deadly bomb ingredients are ‘frequently bought together’ on Amazon

Siobhan Kennedy
Washington Correspondent

A Channel 4 News investigation can reveal how Amazon’s algorithm can guide users to the chemical combinations for producing explosives.

Google Photos Tags Two African-Americans As Gorillas Through Facial Recognition Software

Maggie Zhang Forbes Staff
Tech
I write about technology, innovation, and startups.

Follow

Instagram uses 'I will rape you' post as Facebook ad in latest algorithm mishap

When Guardian reporter Olivia Solon was sent a rape threat, she posted a screenshot on Instagram. Then the Facebook-owned company made it an ad

Tesla Fires Back After Fatal Model S Autopilot Crash

Fortune this week examined the timing between the deadly accident and a huge stock sale by Tesla and CEO Elon Musk.

By Angela Moscaritolo July 7, 2016

Dear Eric Griffith,

Earlier today, we accidentally sent you an email from Amazon Baby Registry. We apologize for any confusion this may have caused.

Sincerely,
The Amazon Baby Registry Team

PDP PRINCIPLES UNDER EU GDPR, PDPA 2010 (MY) AND ISO/IEC 29100

1. Lawfulness Principle
2. Fairness Principle
3. Transparency Principles
4. Purpose Limitation
5. Data Minimisation
6. Accuracy Principle
7. Storage Limitation
8. Data Security
9. Accountability Principle

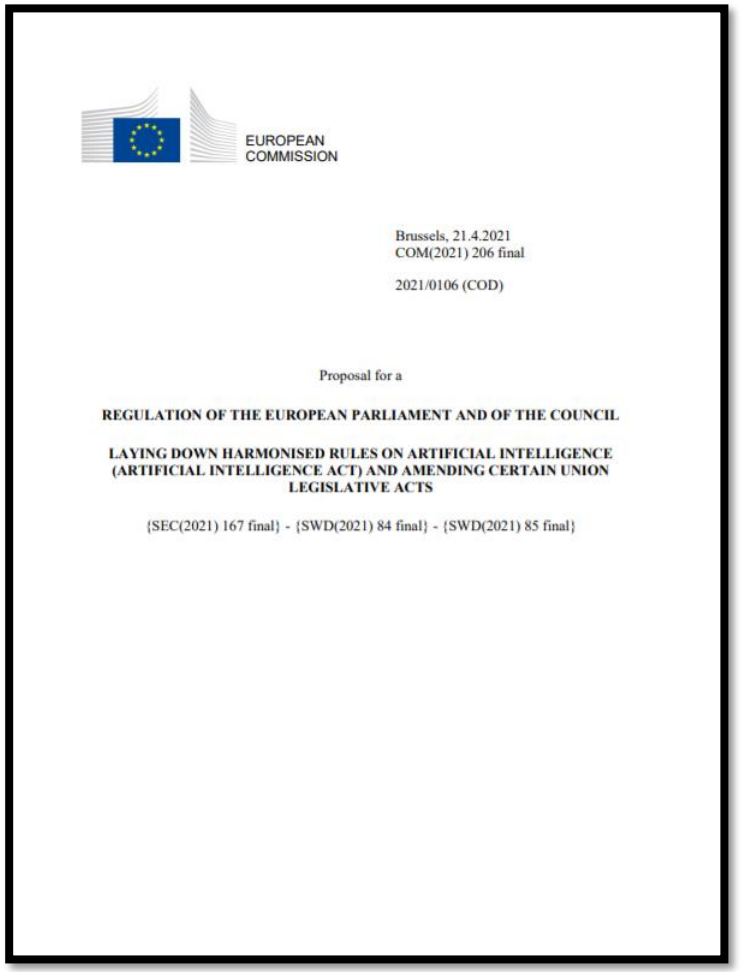
1. General Principle
2. Notice and Choice
3. Disclosure
4. Security
5. Retention
6. Data Integrity
7. Access

1. Consent and choice
2. Purpose legitimacy and specification
3. Collection limitation
4. Data minimalization
5. Use, retention and disclosure limitation
6. Accuracy and quality
7. Openness, transparency and notice
8. Individual participation and access
9. Accountability
10. Information security
11. Privacy compliance

EU PROPOSAL FOR A REGULATION OF ARTIFICIAL INTELLIGENCE (ARTIFICIAL INTELLIGENCE ACT) (21.4.2021)

Objectives:

- To ensure that AI systems placed on the Union market and used are **safe and respect existing law on fundamental rights** and Union values;
- To ensure **legal certainty** to facilitate investment and innovation in AI;
- To enhance **governance and effective enforcement** of existing law on fundamental rights and safety requirements applicable to AI systems;
- To facilitate the development of a single market for **lawful, safe and trustworthy AI applications** and prevent market fragmentation.



EUROPEAN COMMISSION

Brussels, 21.4.2021
COM(2021) 206 final

2021/0106 (COD)

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

LAYING DOWN HARMONISED RULES ON ARTIFICIAL INTELLIGENCE (ARTIFICIAL INTELLIGENCE ACT) AND AMENDING CERTAIN UNION LEGISLATIVE ACTS

{SEC(2021) 167 final} - {SWD(2021) 84 final} - {SWD(2021) 85 final}

MODEL ARTIFICIAL INTELLIGENCE GOVERNANCE FRAMEWORK PDPC SINGAPORE (21.01.2020)

Guiding Principles

Decisions made by AI should be **EXPLAINABLE, TRANSPARENT & FAIR**

AI systems should be **HUMAN-CENTRIC**

From Principles to Practice

Internal Governance Structures and Measures

- Clear roles and responsibilities in your organisation
- SOPs to monitor and manage risks
- Staff training

Determining the Level of Human Involvement in AI-augmented Decision-making

- Appropriate degree of human involvement
- Minimise the risk of harm to individuals

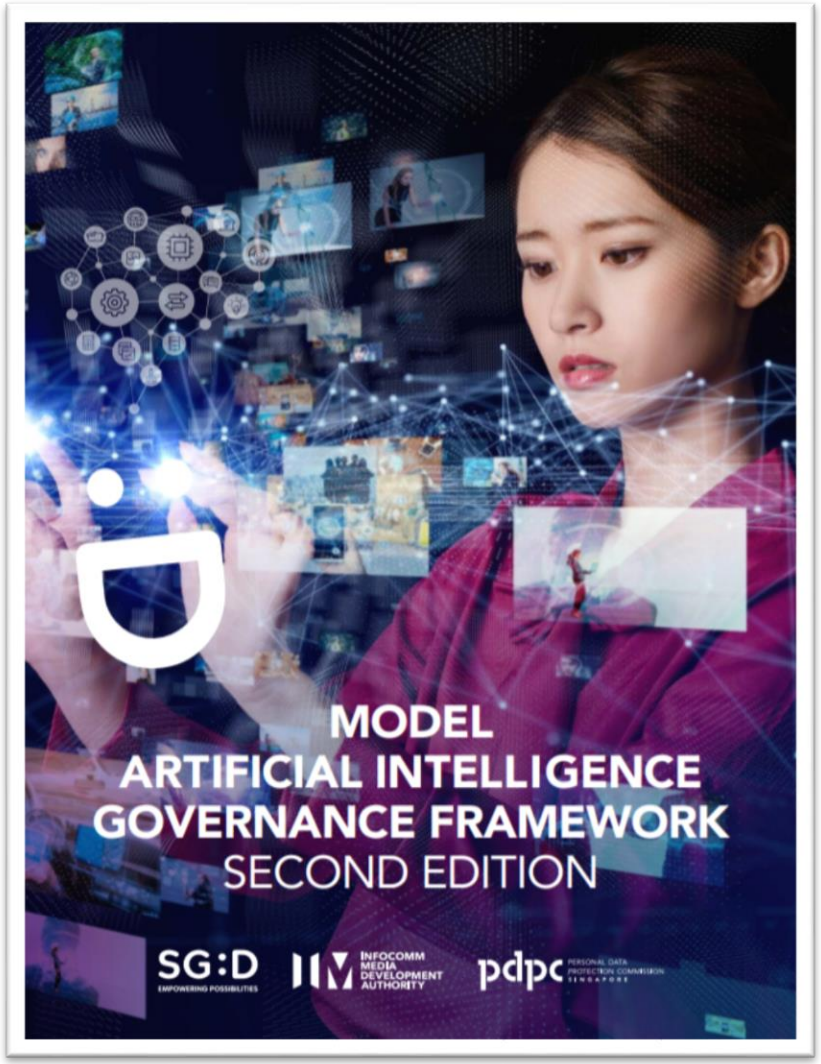
Operations Management

- Minimise bias in data and model
- Risk-based approach to measures such as explainability, robustness and regular tuning

Stakeholder Interaction and Communication

- Make AI policies known to users
- Allow users to provide feedback, if possible
- Make communications easy to understand

Source: pdpc PERSONAL DATA PROTECTION COMMISSION SINGAPORE



Takeaways

01 It is not that big size that matters, but the data analytic is

02 With more leverage to come, risks and challenges are unknown. But fundamental principles remain

03 Big data is led by innovation, law is the carrier, not barrier

04 Law and lawyers, traditionally, follow the innovation, but this time must follow fast

05 Privacy is the prominent area impacted by Big Data

REMEMBER, WITH BIG DATA
COMES BIG RESPONSIBILITY
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BIG DATA

IS ABOUT ACCOUNTABILITY

“

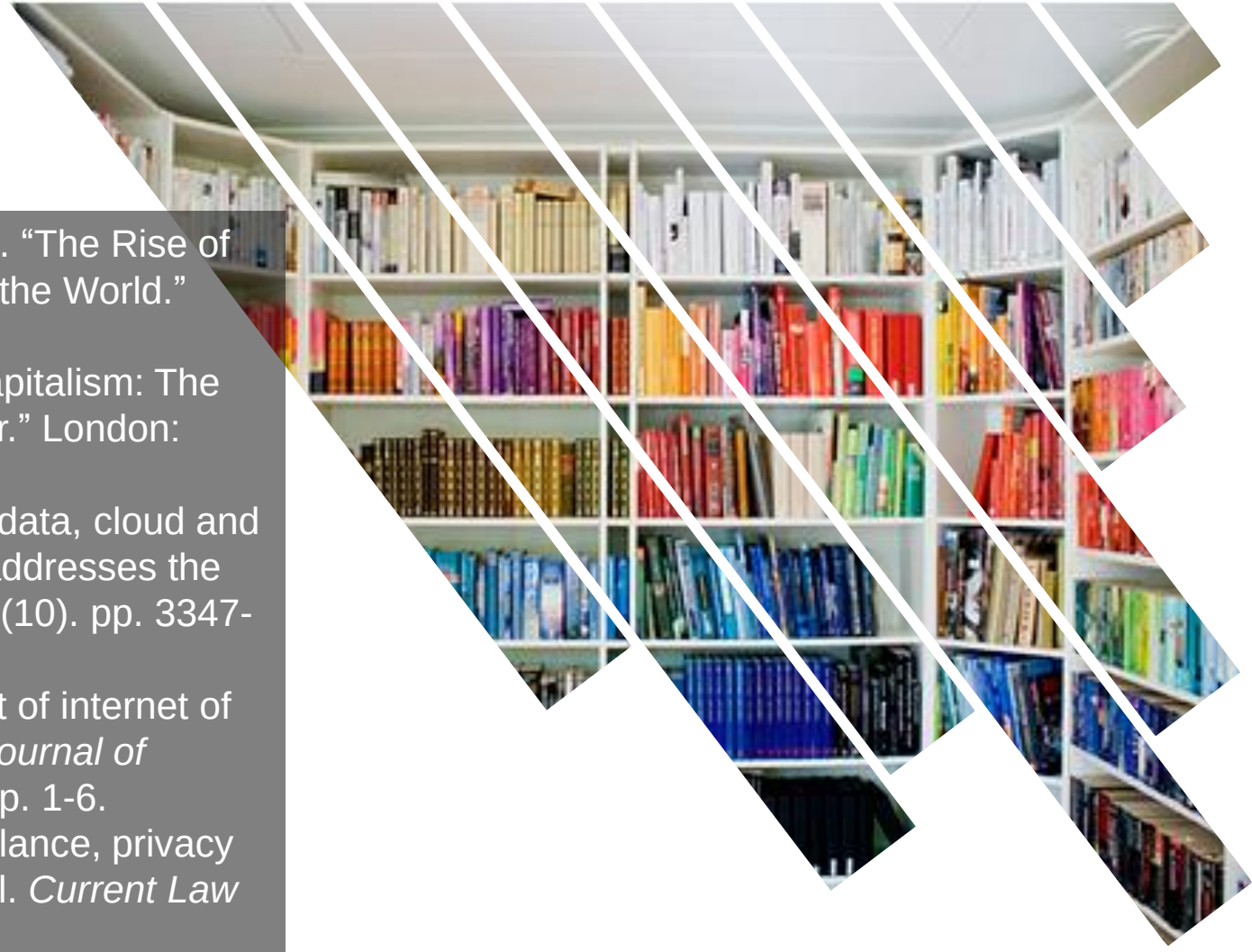
ولا تَقْفُ مَا لَيْسَ لَكَ بِهِ عِلْمٌ إِنَّ السَّمْعَ وَالْبَصَرَ وَالْفُؤَادَ كُلُّ أُولَئِكَ كَانَ عَنْهُ مَسْئُولا

Do not follow that of which you have no knowledge. Surely the hearing, the sight, the heart - each of these shall be called to account
(Al-Isra’, Chap. 17:36)

”

References

1. K. Cukier, V. Mayer-Schönberger, Mircea Pitici. (2014). “The Rise of Big Data: How It’s Changing the Way We Think about the World.” History.
2. Shoshana Zuboff (2019). “The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power.” London: Profile Books Ltd.
3. S. Zulhuda, I.M.A.G Azmi, and N. Hakiem. (2015) Big data, cloud and "bring your own device": how the data protection law addresses the impact of 'datafication'. *Advanced Science Letters*, 21 (10). pp. 3347-3351.
4. S.M.O. Mohamed and S. Zulhuda. (2015) The concept of internet of things and its challenges to privacy. *South East Asia Journal of Contemporary Business, Economics and Law*, 8 (4). pp. 1-6.
5. M.Z.K. Khan and S. Zulhuda. (2014) Electronic surveillance, privacy and national security: concepts, analysis - in a nutshell. *Current Law Review*, 2014 (4). pp. 36-69. ISSN 0127-0699.
6. S. Zulhuda. (2013) Right to privacy: development, cases and commentaries. In: *Constitutional law and human rights in Malaysia: topical issues and perspectives*. Thomson Reuters (Sweet & Maxwell) Malaysia, Petaling Jaya, Selangor, Malaysia, pp. 445-465.



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THANK YOU

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