#### **GSMA Policy Group Meeting**

23 June 2019 | Harbour Grand Hong Kong

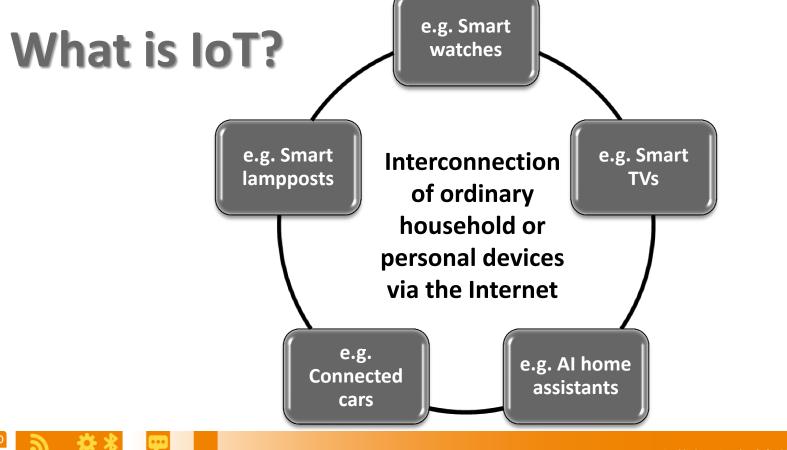


Stephen Kai-yi WONG, Barrister
Privacy Commissioner for Personal Data, Hong Kong





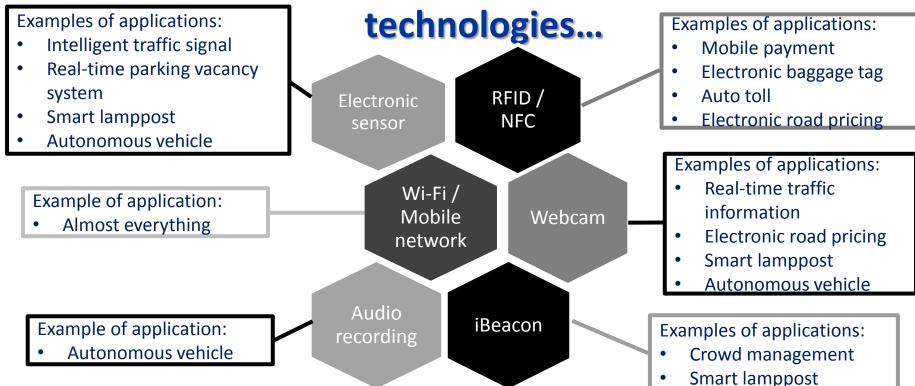








#### IoT may involve one or more of the following





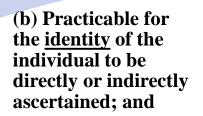


#### Whether the data collected by IoT is "personal data"?

**Definition of "personal** data" under the PD(P)O



(a) Relating directly or indirectly to a living individual



(c) In a form in which access to or processing is practicable

"Data" (資料) means any representation of information (including an expression of opinion) in





#### Whether the data collected by IoT is "personal data"?

ability to collect a vast amount of intimate information concerning an individual's health, movements, habits and private life



piecing together information gathered via different IoT devices -> allow a profile be constructed of the IoT user



tracking of an IoT device may be tantamount to behavioural tracking of the user





### Whether the data collected by IoT is "personal data"?



The US Court of Appeal for the Seventh Circuit

Naperville Smart Meter Awareness v. City of Naperville, No. 16-3766 (7th Cir. 2018) energy consumption data of a household collected by a smart energy meter

protected by the Fourth Amendment to the US Constitution (i.e. the right of people to be secure in their persons, houses, papers and effects, against unreasonable searches and seizures)

the energy usage data revealed information about the happenings inside the house





# Meaning of "collect" as defined in *Eastweek* case applicable in the context of IoT?



The **Eastweek** case



A complaint lodged with the PCPD in 1997 The complainant was photographed by a magazine without her knowledge or consent

The photograph
published in the
magazine
accompanied by
unflattering and
critical comments on
her dressing style





#### Revisit the Meaning of "collect" as defined in Eastweek case in the context of IoT

#### The **Eastweek** case

PCPD: contravened DPP 1(2)(b)

Court of Appeal: No "collection" of personal data by the publisher







#### Revisit the Meaning of "collect" as defined in Eastweek case in the context of IoT

e.g. Individuals' online activities unprotected

e.g. Burden on the individuals and regulators to prove the intent of the businesses

e.g. Images collected by CCTVs unprotected if no "collection" of personal data

e.g. May subsequently identify individuals and reveal details of their intimate lives by applying techniques of big data analytics and profiling

Deprive individuals of PD(P)O protection

e.g. Personal data collected and used for big data analytics and Al algorithms unprotected





#### **Privacy Risks of IoT**

**Indiscrimination** 

An IoT device (e.g., webcam, iBeacon) may track, monitor and collect data from *any persons* coming within its monitoring area

Covert tracking and monitoring; no meaningful notice and

[cf. DPPs 1 & 3]

consent

Individuals may be unaware of the tracking and monitoring devices (e.g. RFID, webcam, iBeacon)

Privacy Risks Vulnerable to security breach (DPP 4)

IoT devices may lack security measures (e.g., firewall, antivirus software, end-to-end encryption)

PCPD



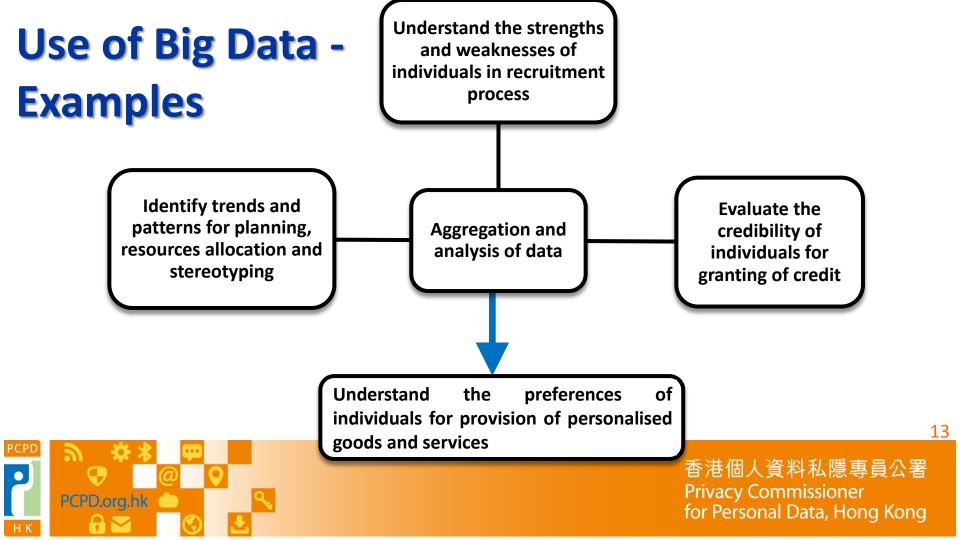
#### **Big Data**

Massive scale of collection, processing, combination and aggregation of structured & unstructured data

Contact addresses Call center and details logs Unstructured Identifiers documents Contacts and Email text and sentiment accounts Social media Relationships sentiment Support Order history history







## Privacy risks associated with open data and big data analytics

#### Open data / Big data analytics

- **Re-identification** of individuals from anonymous data by big data analytics [cf. DPP 1 (fair collection)]
- Revelation of personal secrets by big data analytics [cf. DPP 1 (fair collection)]
- Mistaking coincidence / correlation as causality → bias / unfair discrimination [DPP 2 (accuracy)]
- Sharing and use of personal data beyond individuals' **reasonable** expectations [cf. DPP 3]
- Lack of transparency (unexplainable algorithms) [cf. DPP 5]





#### **Challenges of the Digital Revolution**

Ubiquitous collection of data

Unpredictability in use and transfer

Challenges global data privacy frameworks based on 'notice' and 'consent'

Cyber threats, attacks and resilience







# Carpenter v. United States (2018)

Police obtained 129 days' worth of cellphone location history from a phone company

The Supreme Court: Obtaining these records without a warrant violated Mr. Carpenter's rights







#### **Challenges of the Digital Revolution**





Facilitate the innovative use of data within the legal and ethical frameworks



Minimise the privacy risks, creating healthy synergy with economic growth













#### Regulatory developments in response to Digital Revolution

**OECD Guidelines 1980** 

Provided an international privacy framework

8 fundamental principles – now reflected in global privacy laws **Updated in 2013 to introduce, amongst others:** 

- data breach notification
- privacy management programme
- global interoperability





#### Regulatory developments in response to Digital Revolution

First adopted in 2005 by APEC

Similar to 1980 **OECD Principles** 

#### **APEC Framework**

To promote ecommerce in Asia-Pacific region Updated in 2015

– to draw upon
concepts
introduced into
the OECD
Guidelines 2013





#### Regulatory developments in response to Digital Revolution

# 1980 OECD Privacy Principles

international privacy framework, in response to development in automatic data processing

# nd Generation

# 1995 EU Data Protection Directive

model privacy concepts for EU national laws

# 3rd Generation

#### **2016 GDPR**

- 28 EU national privacy lawsharmonised into one
- addresseschallenges of rapidtechnologicaldevelopments &globalisation

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#### **GDPR Main Objectives**

One set of rules for all companies operating in the EU

People have more control over their personal data

Businesses benefit from a level playing field





#### **GDPR**

- Accountability

Measures to ensure compliance [Art. 24]

Data protection by design and by default [Art. 25]

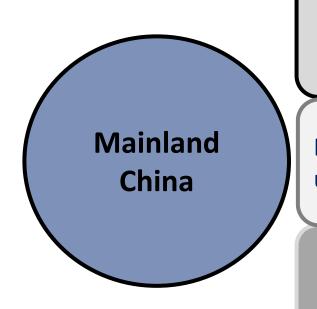
Data
Protection
Impact
Assessment
[Art. 35]

Data
Protection
Officer
[Art. 37]









Slow-starter due to a different traditional culture on privacy

Fast catching up – in view of economic reform and urbanisation in 21st Century

#### No omnibus privacy law yet

 privacy regulation is scattered over various sets of rules and regulations





### Privacy regulation is scattered over various sets of rules and regulations in the mainland of China

Law on the Protection of Consumer Rights and Interests [2013 revised]

Cybersecurity Law [1 June 2017 implemented]

"Security Assessment for Measures for Cross-Border Transfer of Personal Information and Important Data"
[2017 Draft]

"Personal Information Security Specification"

[1 May 2018 implemented]

[1 February 2019 proposed amendments]

General Rules of the Civil Law

[2017 revised]

"Guidelines for Data Cross-Border Transfer Security Assessment" [2017 Draft]

"Guidelines on Protection and Security of Internet Personal Information"

[2019 released]

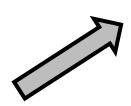
"Administrative Measures for Data Security"
[2019 Draft]

"Regulations on Network Protection of Minor's Personal Information" [2019 Draft] "Measures on Security Assessment of Cross-Border Transfer of Personal Information" [2019 Draft]

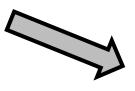




The Personal
Information Protection
Law under Category 1 on
legislative agenda of the
Standing Committee of
the National People's
Congress



conditions for legislation are mature

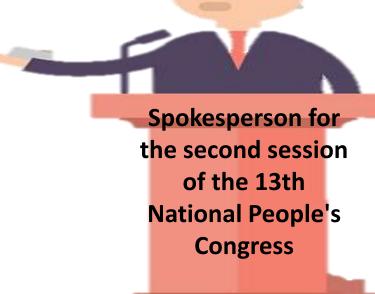


Bill will likely be deliberated within the current 5-year term of the Standing Committee













Personal Data Protection Act (effective in 2006)

- Modelled on the Portuguese data protection regime, similar to 1995 EU Data Protection Directive

#### Macao, China

Cybersecurity Law (amended the draft made in April 2019), applies to-

- public sectors' networks and data systems; and
- private entities that operate critical infrastructures (e.g. transportation, telecommunication, health, banking,

electricity)





#### Singapore

- Personal Data Protection Act (enacted 2012)
- Data Protection Trust Mark (Jan 2019)
- DPA proposed a Mandatory Breach Notification Requirement

#### The Philippines

- Data Privacy Act (enacted 2012)
- DPO
   Accountability,
   Compliance, and
   Ethics Programme
   (Dec 2018)

#### South Korea

- One of the strictest data protection law in the world
- New Personal Information Protection Act submitted to National Assembly
- Adequacy talks with EU ongoing





#### Japan

- Act on the Protection of Personal Information (amended 2015)
- EU-Japan mutual adequacy decisions (adopted Jan 2019)

#### India

- Supreme Court ruled in favour of the right to privacy, as guaranteed under the Constitution (2017)
- Profession Protection Bill (released Jul 2018)

#### NZ

New Privacy Bill
 2018 before
 Parliament; to
 replace the current
 Privacy Act 1993





#### Thailand

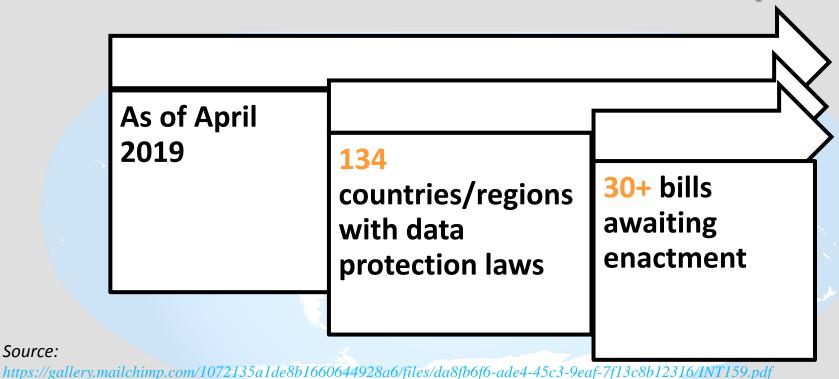
 Personal Data Protection Act (effective on 28 May 2019

#### Malaysia

- Personal Data
   Protection Act 2010
- Review of the Act will be conducted (e.g. mandatory data breach notification regime, expansion of the rights of data subjects, etc.)



#### **Global Data Protection Landscape**





Source:



#### **Review of the Hong Kong Personal Data (Privacy) Ordinance**

- Last reviewed: 2012
- Balancing the protection of privacy against the free flow of information and other freedoms
- Areas of higher priority:







## Hong Kong to drive greater regional harmonisation of data protection frameworks

PCPD + Asian Business
Law Institute – a project
aiming at harmonising the
privacy laws in Asia



Phase 1 completed, i.e. understanding the regulations in different Asian jurisdictions



Phase 2 in progress, i.e. drafting Toolbox





#### **Hong Kong and Singapore Signed MOU**

31 May 2019

To strengthen cooperation in personal data protection

To engage in the sharing of experiences, exchange of best practices, joint research projects and information exchange involving potential or ongoing data breach investigations

Guide to Data Protection by Design (DPbD) for ICT Systems

<u>https://www.pcpd.org.hk//tc\_chi/resources\_centre/publications/files/Guide\_to\_DPbD4ICTSys\_tems\_May2019.pdf</u>





How should companies approach conflicting privacy requirements in different jurisdictions?

- It is possible that the laws in different jurisdictions are conflicting
- Companies should first adhere to the laws of the jurisdictions in which they operate



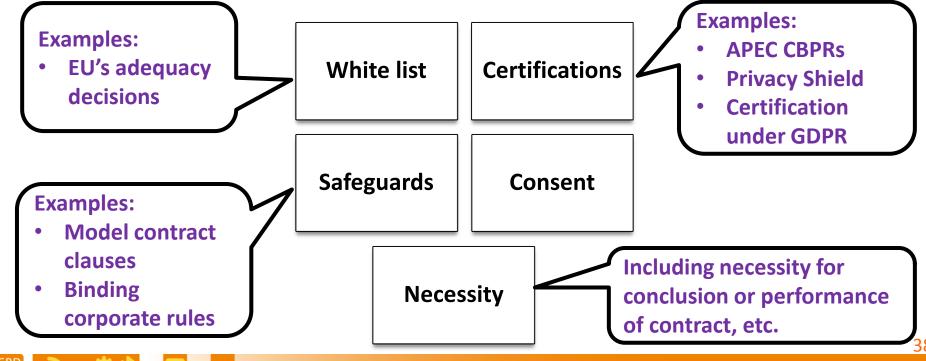








### Common models (legal bases) for cross-border / boundary data transfer







#### **Updates on the International Arrangements for Transfer of Personal Data**

### EU adequacy decisions

- 12 countries obtained adequacy decisions (e.g. Canada, New Zealand and Japan)
- Discussion in progress with South Korea
- Chinese Taipei filed a self-evaluation report to EU in 2018

#### **APEC CBPRs**

- 8 APEC economies joined (i.e. Australia, Canada, Chinese Taipei, Japan, Mexico, Singapore, South Korea and the USA)
- 27 companies certified (mostly U.S. companies)

### **EU-US Privacy Shield**

- 4,000+ companies certified
- European Commission conducted second review As required,
   U.S. has nominated a permanent Ombudsperson to handle complaints on access of personal data by U.S. authorities.





#### Section 33 of Personal Data Privacy Ordinance (PDPO) [Not yet in force]

> Transfer of personal data outside HK is prohibited <a href="except">except</a> under any one of the following specified circumstances:-

- (1) Transfer to places specified in "White List" [s.33(2)(a)]
  - 2 Adequate data protection regime in the destined jurisdiction [s.33(2)(b)]
    - **3** Written consent by data subjects [s.33(2)(c)]
  - Transfer for avoidance and mitigation of adverse action against data subjects [s.33(2)(d)]
  - 5 Use of personal data is exempted from DPP 3 (use limitation) [s.33(2)(e)]
- Reasonable precautions and due diligence taken by data users (e.g. contract clauses) [s.33(2)(f)]





#### Why is s.33 implementation deferred?

Concern from businesses about impact on operations



Concern from businesses about difficulties in compliance, especially SMEs



**Businesses demanded guidance from PCPD** 



Businesses demanded more time to implement measures to comply

e.g. Impact on international trade and online sales

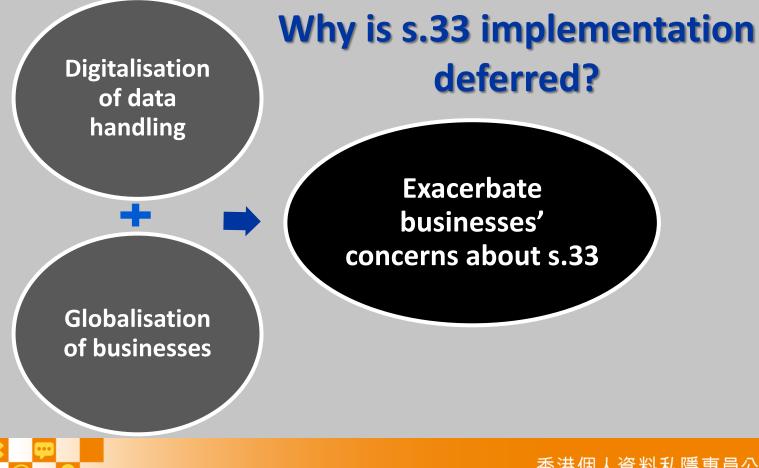
e.g. Lack of resources and legal knowledge

Guidance Note was issued by the PCPD in December 2014













## Existing protection under PDPO without s.33 in operation

DPP 1 requires specification of classes of transferees be

S.65(2) holds data users liable for the acts of their agents, including overseas service providers DPP 2(3) requires data users to prevent their processors from retaining personal data longer than necessary

personal data transferre d to their

processors



given upon



## Existing protection under PDPO without s.33 in operation

Even if s.33 is not in force, for data transferred from other jurisdictions to Hong Kong, parties can impose contractual restrictions on onward transfer to places outside Hong Kong.

(See also other Model Clauses attached)





#### Recent work by PCPD and HKSAR Government on s.33

2014 -2015

To address businesses' demand for guidance, PCPD issued Guidance Note on compliance with requirements of s.33, with a set of model contract clauses recommended



More concerns raised by businesses in response to the

**Guidance Note** 

e.g.-

- Unclear about the definition of "personal data" and "transfer"
- Difficult for SMEs to impose contract clauses to services providers?
- What if a "White Listed" region is subsequently delisted?
- Lack of resources to monitor service providers abroad
- Lack of information about the location of cloud servers







#### Recent work by PCPD and HKSAR Government on s.33

2015-2016

Government commissioned a consultant to conduct a Business Impact Assessment (BIA) Study on implementation of s.33



PCPD rendered comments to the consultant on the interpretation, application and compliance issues of s.33







#### Recent work by PCPD and HKSAR Government on s.33

2018

Seven issues of concerns raised by Government's consultant in the BIA Study which require further studies



PCPD engaged a consultant to explore how restriction on cross-border data transfer may be implemented in light of these seven issues of concerns







#### The seven issues of concerns

1. How "transfer" under s.33 and "personal data" are to be defined

2. The mechanism for reviewing and updating the "white list" under s.33

3. Whether the adoption of existing rules and standards in highly regulated industries (e.g., financial industry) would allow a data user to be regarded as having met the requirements of s.33





#### The seven issues of concerns

4. The ancillary measures or alternatives to facilitate the implementation of s.33

5. Enforcement issues of s.33 and means to tackle them

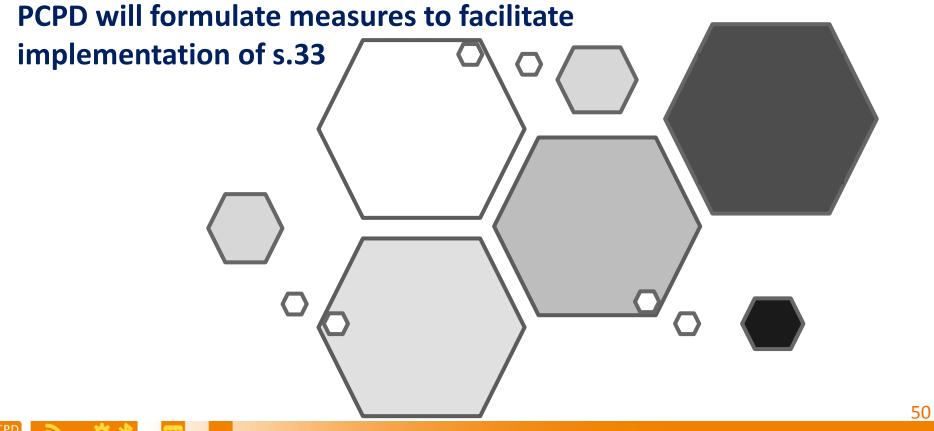
6. The criteria or yardsticks for deciding whether a data user has "taken all reasonable precautions and exercised all due diligence" under s.33

7. Suggestions on the forms of support or guidance from the PCPD to help businesses understand and comply with the requirements of s.33





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#### **Model Contract Clauses Recommended by PCPD**

See: PCPD's "Guidance on Personal Data Protection in Cross-border Data Transfer"

1. Obligations of the Transferor

2. Obligations of the Transferee

3. Liability and indemnity

4. Settlement of disputes

5. Termination

**6.** Third Party Rights





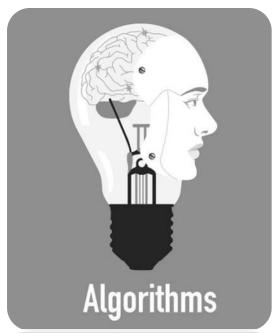


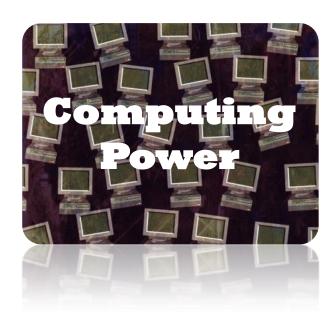




#### Al elements







Augoriums







# Mainland China

# 1.4 Billion population

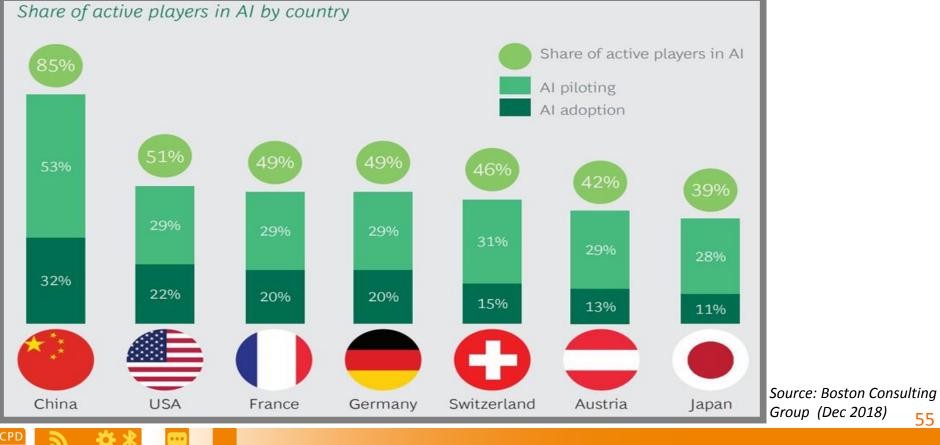
 1.3 billion 3G /4G mobile accounts

 71 billion gigabytes mobile traffic in 2018













香港個人資料私隱專員公署 **Privacy Commissioner** for Personal Data, Hong Kong

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#### World's biggest AI unicorn, SenseTime was founded in HK



HK Ranked 2<sup>nd</sup> in the APAC AI Readiness Index\*

\*Source: Asia Pacific Al Readiness Index by Salesforce (Apr 2019). Jurisdiction covered in the index are Australia, Hong Kong, India, Indonesia, Malaysia, Philippines, Singapore and Thailand





#### Al robot "Sophia" developed by a HK company



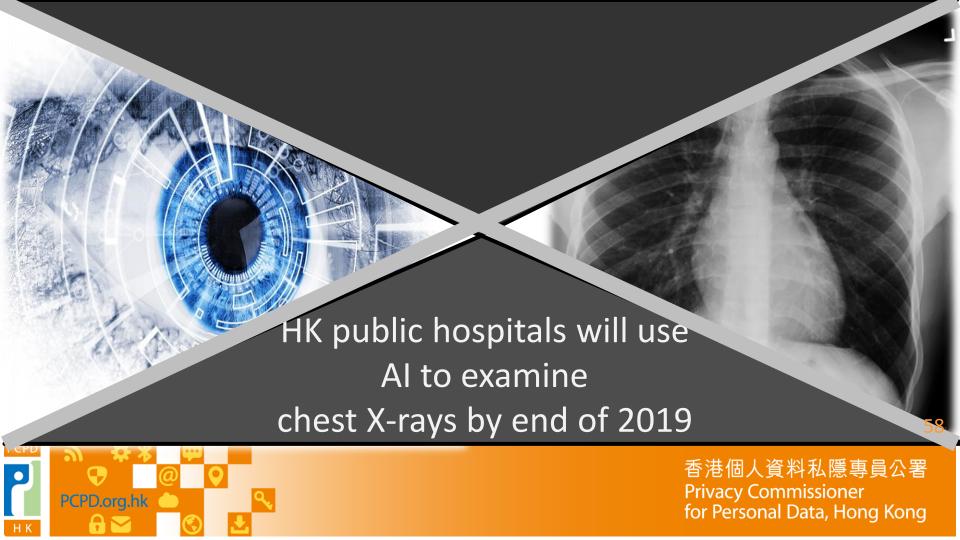
runs on a cloud-based Al

simulates human facial expression

first robot in the world recognised with a citizenship (Saudi Arabia, 2017)









First Big Data Arbitration Center Established in Shenzhen, China in 2017

Use of AI for pre-arbitration assessment and writing of decisions





#### **San Francisco**

Use of Facial Recognition
Software by Police and other
Government Agencies Ban









#### Illinois

Artificial Intelligence Video Interview Act

- Notification
- Explanation
- **\* Obtain Consent**











Bias

Unfair discrimination

Inequality





香港個人資料私隱專員公署 Privacy Commissioner for Personal Data, Hong Kong

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Microsoft – IDC Study: Artificial Intelligence adoption to increase rate of innovation and employee productivity gains by more than double by 2021

May 8, 2019 | Doris Hui





 Artificial Intelligence (AI) will more than double the rate of innovation and employee productivity gains in Hong Kong by 2021.  ${\it Microsoft-IDC\ Study:\ Only\ 31\%\ of\ consumers\ In\ Asia\ Pacific\ trustorganizations\ offering\ digital\ services\ to\ protect\ their\ personal\ data}$ 

April 16, 2019 | Microsoft Asia News Center





- Nearly 40% of consumers in the region have had their trust compromised when using digital services;
- . Only 5% of consumers prefer to transact with an organization that offers a cheaper but less trusted digital platform;
- Consumers have the highest expectations of trust from financial services, healthcare and education sectors:

Source: Microsoft (April & May 2019)





#### **Data Ethics**

#### 2017

#### Ethics on AI -

1st being discussed at the ICDPPC meeting held in Hong Kong

#### 2018

"Ethical Accountability Framework for Hong Kong, China" published by PCPD

"Declaration on Ethics and Data Protection in Artificial Intelligence" made by the ICDPPC in Brussels

ICDPPC Permanent Working Group on Ethics and Data Protection in Al established (co-chaired by CNIL, EDPS and PCPD (HK))

#### 2019

"Ethics Guidelines for Trustworthy AI" issued by the European Commission





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## Ethics on AI first discussed in Hong Kong 19th (2017)



"Data users need to add value beyond just complying with the regulations. Discussions about "New Digital Ethics", the relevant ethical standard and stewardship have already begun. Surely the deliberations will go on. In the not far away future, we may come up with an "Equitable Privacy Right" for all stakeholders."

Stephen Kai-yi Wong Opening speech at 39<sup>th</sup> ICDPPC (2017)





PCPD's Ethical Accountability Framework (2018)



**Principles & policies** 

Assessments, procedures, guidelines & oversights

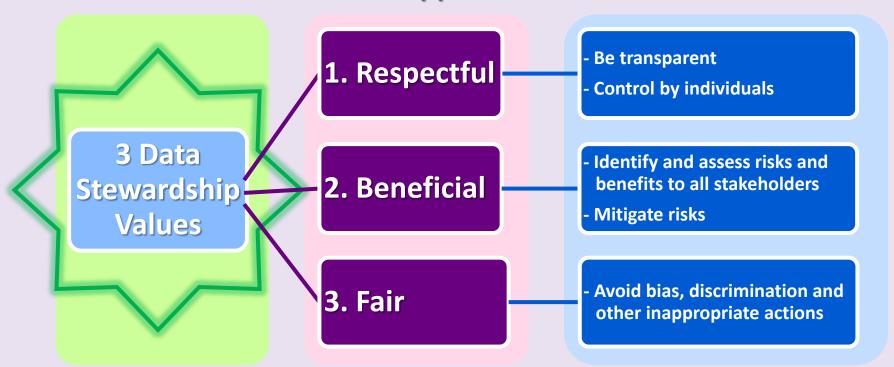




香港個人資料私隱專員公署 Privacy Commissioner for Personal Data, Hong Kong

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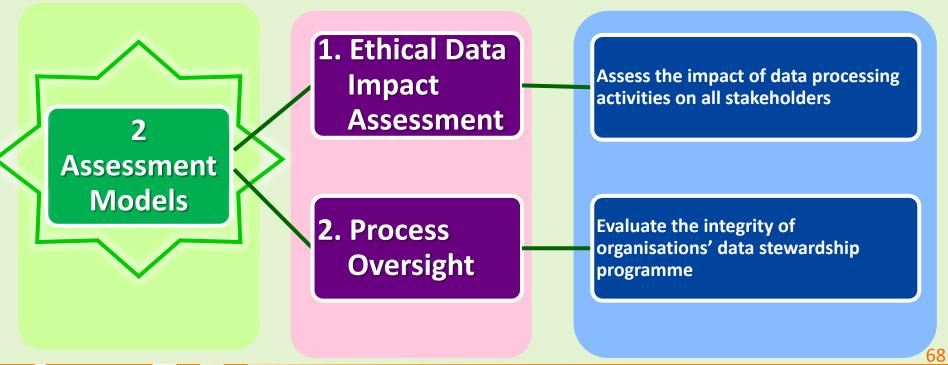
#### **Multi-stakeholders Approach – Three Core Values**







#### Multi-stakeholders Approach – Two Assessment Models







#### **Data Ethics - Implementation**

Step 1: Analyse the <u>business objective</u> and <u>purpose</u> of the data processing activity

Privacy by Design



Ethics by Design

Step 2: Assess the <u>nature</u>, <u>source</u>, <u>accuracy</u> and <u>governance</u> of the data

Step 3: Conduct <u>impact assessment</u>, i.e. <u>risks and benefits</u> to the individuals, the society and the organisation itself

Step 4: <u>Balance</u> between expected benefits and the mitigated risks to all stakeholders







### ICDPPC Declaration on Ethics and Data Protection in Artificial Intelligence (2018):

**Six Core Principles** 





Reducing biases or discriminations

Empowerment of every individual



Continued attention and vigilance

Systems transparency and intelligibility

**Ethics by design** 





## EU's "Ethics Guidelines for Trustworthy AI" (2019)



#### 7 key requirements:

- 1. Human agency and oversight
- 2. Technical robustness and safety
- 3. Privacy and data governance
- 4. Transparency
- 5. Diversity, non-discrimination and fairness
- 6. Societal and environmental well-being
- 7. Accountability







#### PCPD information leaflet

Data Ethics for Small and Medium Enterprises









### HKMA's circular on 3 May 2019

- To all authorized institutions
- Encourages them to adopt and implement the Ethical Accountability
   Framework in the development of fintech products and services

https://www.hkma.gov.hk/media/eng/doc/key-information/guidelines-and-circular/2019/20190503e1.pdf





### Data ethics in mainland China

Expert committee on AI governance set up by the Ministry of Science and Technology in February 2019

Minister of Science and Technology of China, WANG Zhigang: (May 2019)

 Drafting of the AI governance guidelines is progressing well. The draft guidelines will be released soon.





# A symposium on AI ethics and Internet governance, Beijing, May 2019

### **Co-founder of SenseTime, XU Li:**

(May 2019)

 New rules on facial recognition are crucial towards the wider adoption of this form of AI technology around the world.





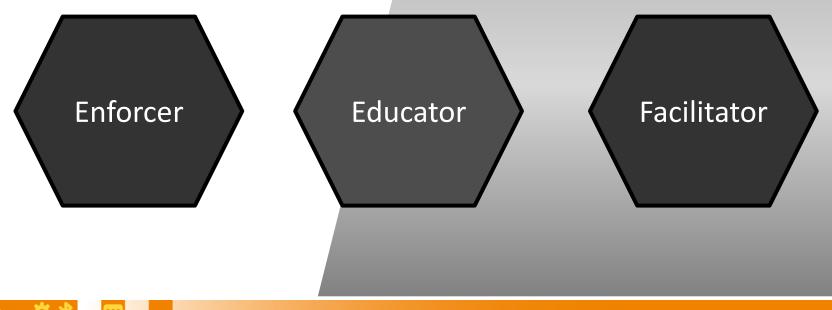
### Core values of personal data protection

- Personal data privacy right is a fundament human right
- Human right is about the dignity of a human being
- A proper balance should be struck between personal data privacy right and other human rights where conflicts occur
- Personal data privacy right should not stifle ICT and economic developments





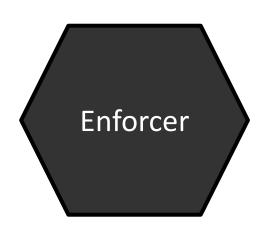
## Regulating for Results







## Fair enforcement, taking into account



- Statutory requirements
- Privacy expectation
- Legitimate interest





# Children PRIVACY A one-stop portal for children to learn and understand personal data privacy, and for teachers and parents to help those under their care in how to protect their presonal data











香港個人資料私隱專員公署 Privacy Commissioner for Personal Data, Hong Kong

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## Education campaigns in 2018

- 18 promotional and education programmes with
   262,145 participants
- 106 schools joined "Student Ambassador for Privacy Programme"
- 421 professional workshops, talks and seminars







Lawful, accountable and ethical use of personal data







### PCPD's Roles - Enforcer + Educator + Facilitator **PCPD's Strategic Focus Fair Enforcement Compliance Privacy-Engaging** Accountability friendly **Culture** Ethics/ **Incentivising** Trust/ Respect 82





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