

American Bar Association Spring Meeting 2020 (Virtual) –  
Tech Innovations at the Privacy Edge

# Facial recognition and COVID-19 measures - An overview from the perspectives of Hong Kong and mainland China

27 May 2020

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



# Differences in Privacy Culture

<u>Mainland of China</u>	<u>Hong Kong SAR</u>
Traditional Chinese culture emphasises the <b>interests of society and family</b> .	
The Chinese phrase close to the meaning of privacy is “yin si”, the protection of which was not practiced due to historical, cultural and political background.	
The protection of personal information is not emphasised until technological developments in recent years.	155 years of British colonial rule has brought in the Western culture and regulations on privacy as fundamental human right.
Mainland Chinese authorities have passed or revised a host of laws since 2010 to address various privacy issues.	Privacy-related regulations include the UN ICCPR (later mirrored by the Hong Kong 1991 BORO); and the 1995 PDPO, the protection of which is enshrined in the Basic Law (constitutional document of Hong Kong SAR).

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# Global Surveillance



WORLD NEWS

## One billion surveillance cameras will be watching around the world in 2021, a new study says

PUBLISHED FRI, DEC 6 2019-1:38 PM EST



SHARE

- An estimated 770 million surveillance cameras installed around the world today.
- The number will be 1 billion + by 2021.
- **More than half of the world's surveillance cameras will be in the mainland of China.**

Source: IHS Markit (2019)

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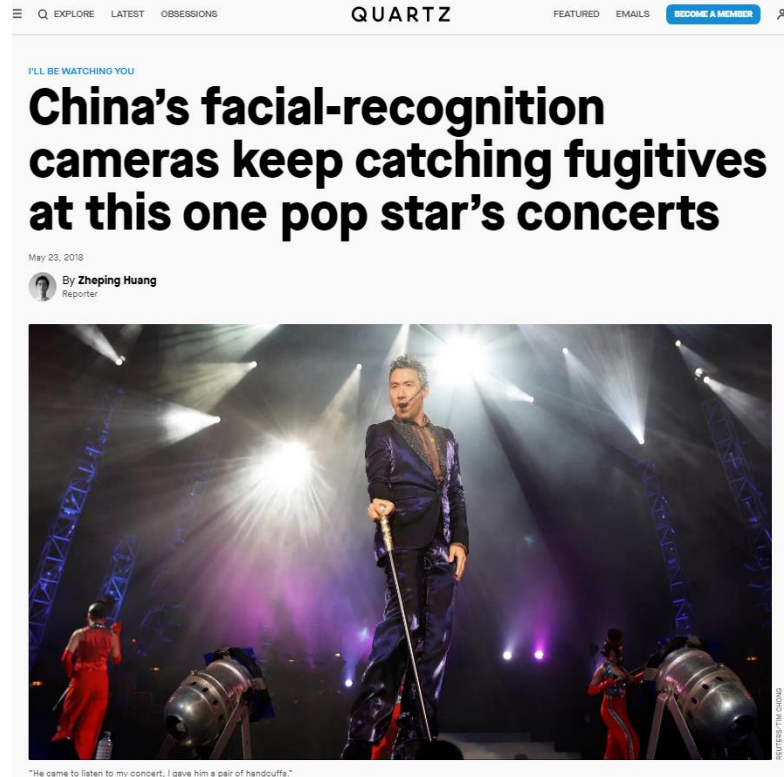


# Facial recognition cameras in Chinese citizens' daily lives:

- Police captured multiple fugitives who attended the singer Jacky Cheung's concerts in 2018, by using surveillance cameras equipped with facial recognition technology.



Source: Quartz (2018)



China / Society

## Pay attention at the back: Chinese school installs facial recognition cameras to keep an eye on pupils

Pupil tells reporters he doesn't dare let his mind wander after technology is installed in classroom to see who is paying attention



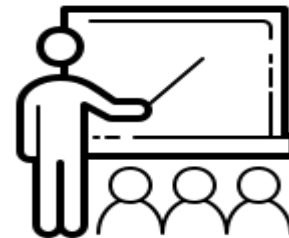
Louise Moon

Published: 3:56pm, 16 May, 2018 -

🔒 Why you can trust SCMP



Cameras have been installed at the front of the class to monitor the pupils' expressions. Photo: Sina



- A school in eastern China reportedly installed cameras to monitor pupils' facial expressions and attentiveness in class.
- The cameras, described as “teaching assistants”, gave teachers real-time information on their students.

Source: SCMP (2018)

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- Zhengzhou is the first city in mainland China to roll out face recognition payment systems for subway networks.
- Nearly 200,000 commuters in Zhengzhou elected to authorise face-scan payments from Sep to Dec 2019.



Source: SCMP (2019)

Tech / Apps & Social

## China's subways embrace facial recognition payment systems despite rising privacy concerns

• Since the service began trials in September, nearly 200,000 commuters in Zhengzhou have elected to authorise face-scan payments



Sarah Dai in Beijing  
Published: 6:00am, 4 Dec, 2019

Why you can trust SCMP

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A man gets ready to walk through a subway turnstile equipped with a face scan payment system at Zijingshan station in Zhengzhou, Sept. 27, 2019. Photo: Xinhua



# Public opinions of surveillance are mixed in mainland China

A shopkeeper in Chongqing once told a western reporter,

*“Chinese people don’t care about privacy. **We want security**... It’s still not enough cameras. We need more.”*

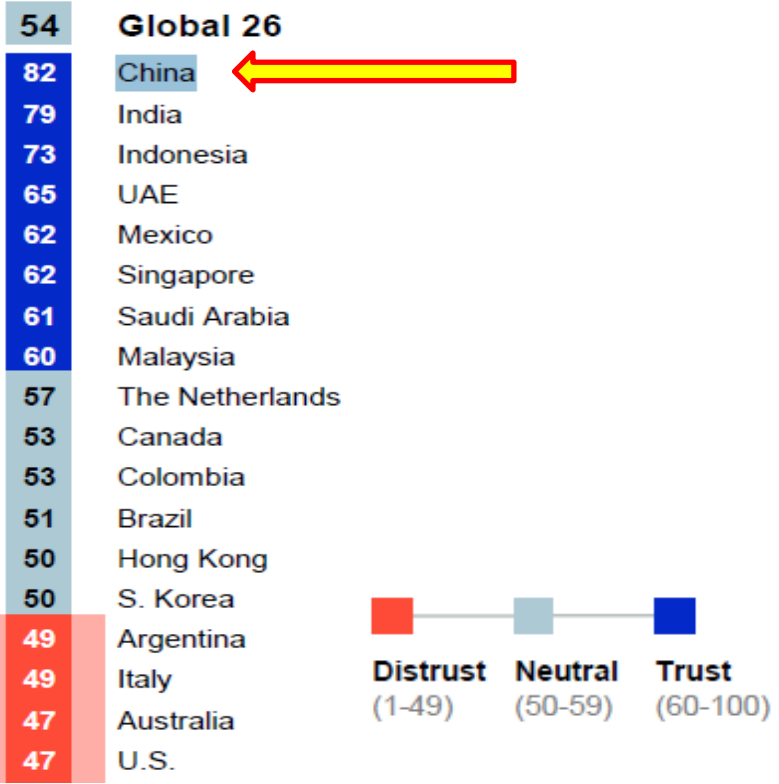
Source: Time (2019)

*“It’s the best way to **manage a complex country with the world’s biggest population**. If, as our government says, every corner of public space is installed with cameras, **I’ll feel safe.**”*

– A marketing professional in mainland China, stated in an interview.

Source: Australian Broadcasting Corporation (2018)

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# Public trust in the Government is high

## Edelman Trust Barometer 2020:

- **Mainland China topped the Trust Index with 82 points**
- **People in mainland China had a high level of trust in the government, NGOs, businesses and the media**



# Concerns about the private sector using facial recognition

① Survey by a Beijing research institute (2019):

- 74% respondents wanted the option of **traditional authentication methods** over facial recognition
- 80% were concerned that facial recognition system operators had **lax security measures**

Source: BBC News (2019)

Chinese deepfake app Zao sparks privacy row after going viral

Critics say face-swap app could spread misinformation on a massive scale



② ZAO (a face swap app in mainland China) faced fierce criticisms as its privacy policy gave the company “free, irrevocable, permanent, transferable, and relicensable” right to use users’ images

Source: The Guardian (2019)

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# *Privacy protection is gaining traction in mainland China*

## ① Personal Information Security Specification:

- A national standard on personal data protection implemented in 2018
- Stringent personal data protection requirements, e.g. accountability, risk assessment
- Special requirements on biometric data, e.g. explicit consent, separate storage
- Considered as mainland China's response to EU's GDPR

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# *Privacy protection is gaining traction in mainland China (cont.)*

## ② First court case on the use of facial recognition technology:

A law professor sued the Hangzhou Safari Park in 2019 for its use of facial recognition to authenticate season ticket holders at the entrance.

# *Privacy protection is gaining traction in mainland China (cont.)*

## ③ Facial recognitional national standard:

- To be published by the National Information Security Standardization Technical Committee in 2 years
- In response to concerns about the wide application of the technology and the personal data security risk

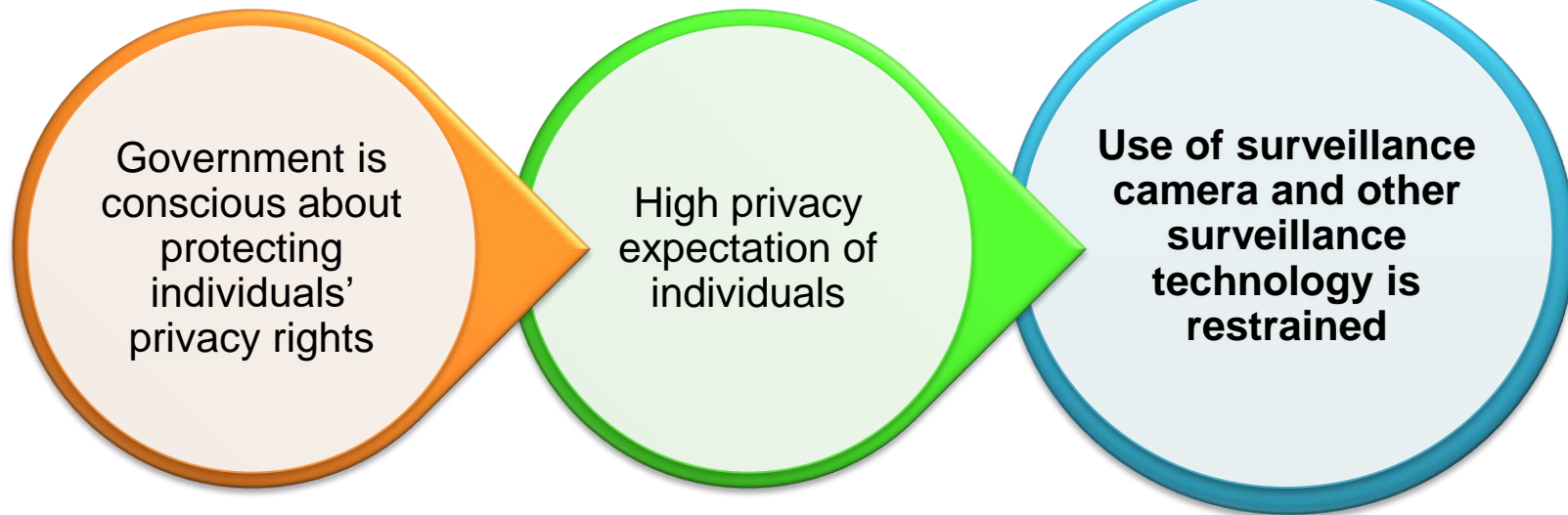
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# *Privacy protection is gaining traction in mainland China (cont.)*

## ④ **First comprehensive Personal Data Protection Law in mainland China:**

- Included in the legislative plans of the National People's Congress
- Currently being drafted, and expected to be published within 2020

# Hong Kong SAR – Privacy-conscious culture



# Multi-functional Smart Lampposts Pilot Scheme



- Launched in 2019
- 400 smart lampposts across Hong Kong
- For monitoring traffic, air quality, weather, etc.
- Original design of panorama camera replaced by **thermal detectors and Lidar** (Light Imaging Detection and Ranging) in response to public concern about surveillance

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# Technological measures tackling COVID-19 taken by the world

Location  
Tracking



Contact  
Tracing

Big Data  
Analytics

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# Measures taken by the mainland Chinese government

## 1) Real-name registration on public transport



South China Morning Post

SIGN IN/UP

C

### Tech firms help Chinese authorities launch real-name registration on public transport for coronavirus tracking

- New systems by tech firms Meituan and Dida require commuters to provide personal information before taking public transport in some Chinese cities
- The initiative is meant to help authorities track those who might have been in contact with individuals infected with the novel coronavirus



Sarah Dai in Beijing

Published: 5:30pm, 11 Feb, 2020

Why you can trust SCMP

Source: SCMP (2020)

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WORLD | ASIA | CHINA

## China Turns to Health-Rating Apps to Control Movements During Coronavirus Outbreak

Tech giants such as Alibaba and Tencent tapped to develop color-coded systems to classify people based on their health conditions and travel history



As the number of coronavirus cases rises, epidemiologists around the world look at maps, flight bookings and population data to estimate the size of the outbreak--and explain why their results are higher than China's official tally. Photo: Getty Images

By [Liza Lin](#)

Updated Feb. 18, 2020 8:42 pm ET



## 2) Health-Rating APPs

- Categorise citizens based on their risks of infection (red, yellow or green)
- Those with **red** or **yellow** health codes will face travel restrictions

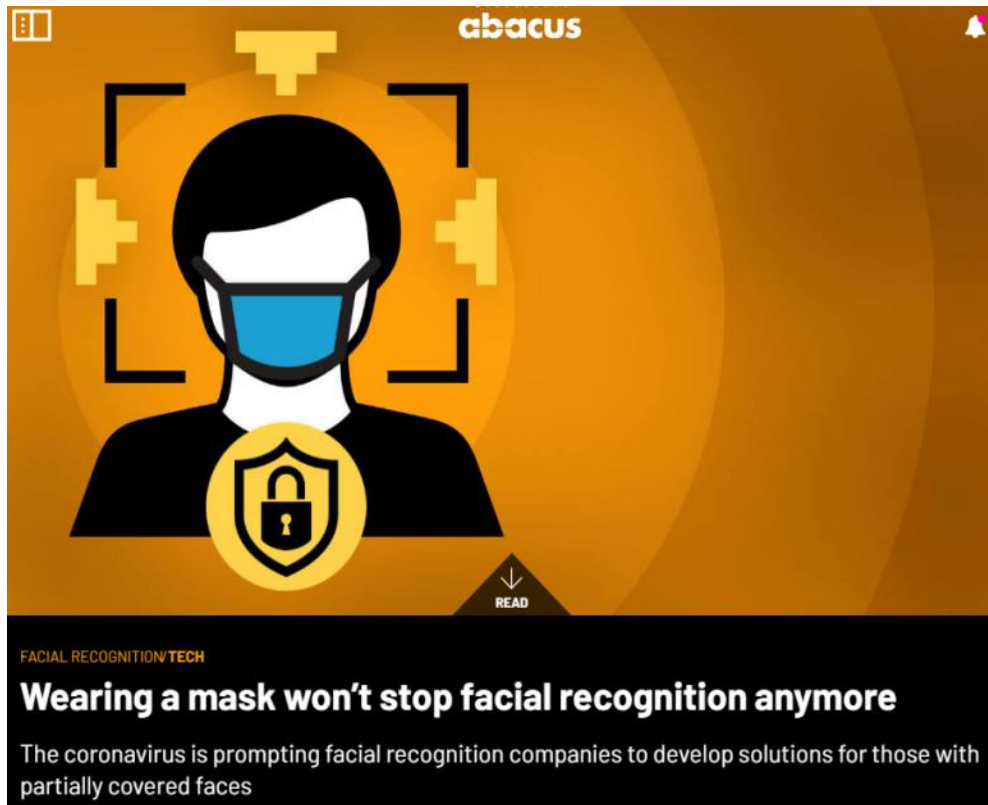
Source: WSJ (2020)

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### 3) Facial recognition of masked faces

- Chinese tech companies are developing algorithms that spot people not wearing masks;
- And algorithms that identify people with masked faces.

Source: Abacusnews (2020)



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## China adapts surveying, mapping, delivery drones to enforce world's biggest quarantine and contain coronavirus outbreak

- Shenzhen Smart Drone UAV's drones used in surveying, mapping can lift a maximum payload of 15kg
- Adaptation shows how outbreak has opened the door for innovative applications to emerge from existing tech



Yujing Liu

Published: 8:00am, 5 Mar, 2020

[Why you can trust SCMP](#)

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## 4) Drones

- Drones modified to fight COVID-19, e.g.-
  - disperse public gatherings;
  - issue warnings to individuals;
  - remotely check people's temperatures;
  - spray disinfectants; and
  - enforce home quarantine orders.

Source: SCMP (2020)

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## 5) Telecom carriers utilizing user data pool

- Chinese telecom companies leveraging the data pool of China's billion-plus smartphone users to offer insights;
- Help monitor the traffic to help local governments take better precautionary measures.

Source: China Daily (2020)



A community worker in Hangzhou, capital of Zhejiang province, checks a resident's health code using a smart phone. The code is part of local efforts to use big data in the fight against novel coronavirus. [Photo by Dong Xuming/For China Daily]

# *Mainland government's measures to address privacy concerns amidst COVID-19*

## 1) *“Notice on the Protection of Personal Information when Using Big Data for Joint Support and Defense”*

- Released by the Cyberspace Administration of China in February 2020
- **Emphasising privacy principles and cybersecurity requirements** on the collection, use, and disclosure of personal information for purposes of containing COVID-19

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# *Mainland government's measures to address privacy concerns amidst COVID-19 (cont.)*

## 2) Urgent notice issued by the Ministry of Transport

- Issued to public transport operators in January 2020.
- Stipulating that **passenger information collected** in connection with COVID-19 prevention and control shall be **disclosed only to health authorities**.

# *Mainland government's measures to address privacy concerns amidst COVID-19 (cont.)*

## 3) Notice issued by the National Health Commission

- Issued in February 2020 to all local health commissions.
- Stating the government's policy to strengthen the protection of privacy by **enhancing cybersecurity and ensuring the regulated use of personal data.**



# Proposals made by representatives during the “Two Assemblies” of China in May 2020

*Temporary/ad-hoc measures of collecting personal data for fighting COVID-19 should be cancelled if possible and **not made permanent**.*

Liu Xiaobing, Dean, Public Economy and Management, Shanghai University of Finance

Lian Yu Ming, Head, International Institute for Urban Development, Beijing

*A **regulatory body** should be set up with reference to Hong Kong’s PCPD.*

*Explore the establishment of **guidelines and standards** for the collection of personal data during extraordinary periods.*

Robin Li, CEO, Baidu

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# COVID-19 measures in Hong Kong

## (1) Electronic Wristbands + Mobile App

- Electronic wristbands paired with a mobile apps – *StayHomeSafe* – to enforce home quarantine
- Currently mandatory for all people coming to HK



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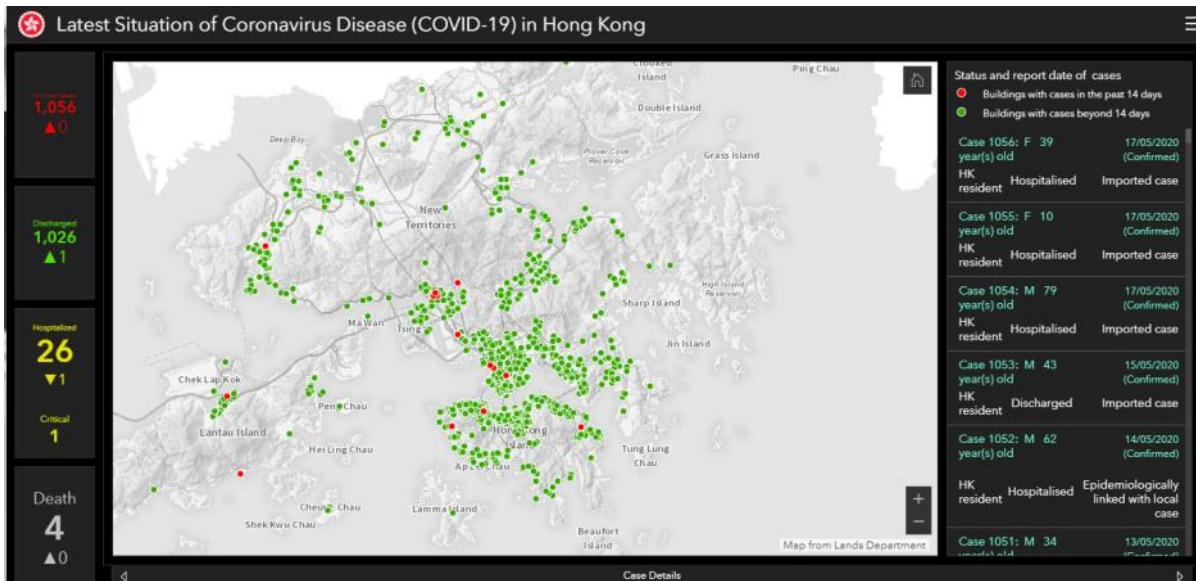
# (1) Electronic Wristbands + Mobile App

- Wristbands do not contain GPS device
- Mobile app does not collect geo-location data
- Confirm a person is staying at home by analysing environmental communication signals such as Bluetooth, Wi-Fi and geospatial signals



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## (2) Online Dashboard



- List out patients' age, gender and building resided
- No precise information to re-identify patients
- Well-balanced between privacy and information transparency

Source: <https://chp-dashboard.geodata.gov.hk/covid-19/en.html>

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### (3) Other Contact Tracing & Exposure Notification Measures

- Verbal inquiry for contact tracing
- Supercomputer and big data analytics to identify close contacts
- Aggregate statistical data about usage of Octopus card to track the transmission of the virus and identify the risk of infection in various districts
- Location data collected by mobile operators



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# Exemptions under data protection law

- Exemptions under the Personal Data (Privacy) Ordinance for using identity and location data:
  - Section 59 – protection of health
  - Section 60B – authorisation by law, i.e. Prevention and Control of Disease (Disclosure of Information) Regulation



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# COVID-19 measures – Questions to consider

- Privacy – **fundamental but not absolute**; with exemptions (c.f. right to life).
- Must personal data be collected and used?
- **Pressing need** for such measures (e.g. pandemic and short of vacancies)?
- Serve the **legitimate purposes** of protecting public health?
- **A rational connection** between the measures and the legitimate purposes?
- **No more than necessary measures** to achieve the legitimate purposes?
- Benefits of achieving the legitimate purposes **not disproportionate to the encroachment and inroads made into the fundamental right of personal data privacy**, i.e. not imposing an unacceptable harsh burden on the affected individuals?

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**GPA**

Global Privacy Assembly

# Views of Data Protection Authorities

Two media statements issued by GPA Executive Committee  
in March and May 2020

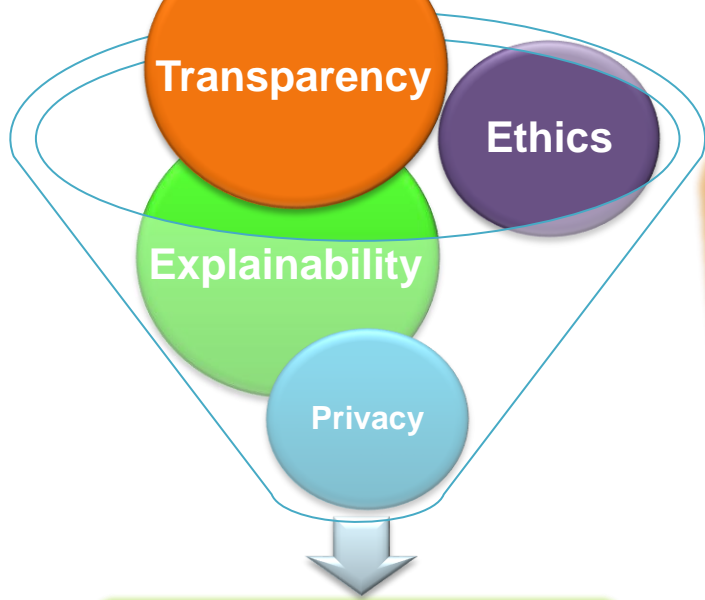
*“The universal data protection principles in **all our laws will enable** the use of data in the public interest and still provide the protections the public expects.”*

*“The success of contact tracing apps will depend on the **trust** of individual members of the public... .. **privacy by design** is a key enabler...”*

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**TRUST**  
→ Enabler of  
technological  
success

While privacy regulations only follows on the heels of technological development, **data ethics** is pivotal to preempt privacy risks.

**Data ethics** transcends geographical boundaries, borders and cultures, and applies equally in Hong Kong, the mainland of China and the rest of the world

# Thank you



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HK

PCPD.org.hk

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

The PCPD logo is a stylized figure in a blue square. To its right is a grid of orange and white squares containing various icons: a Wi-Fi symbol, a gear, a star, a speech bubble, a shield, a padlock, a mail icon, a magnifying glass, and a download arrow.