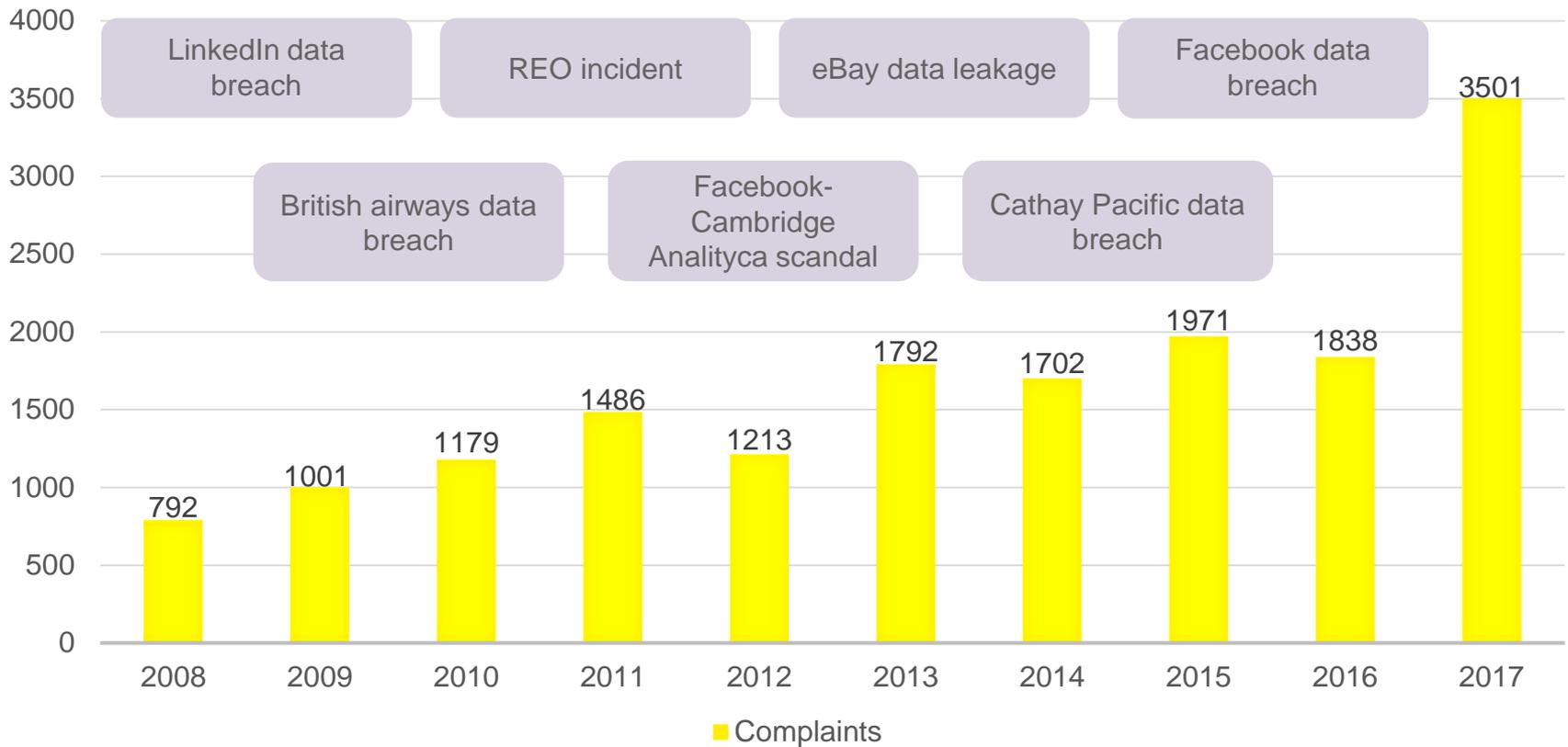


The University of Hong Kong

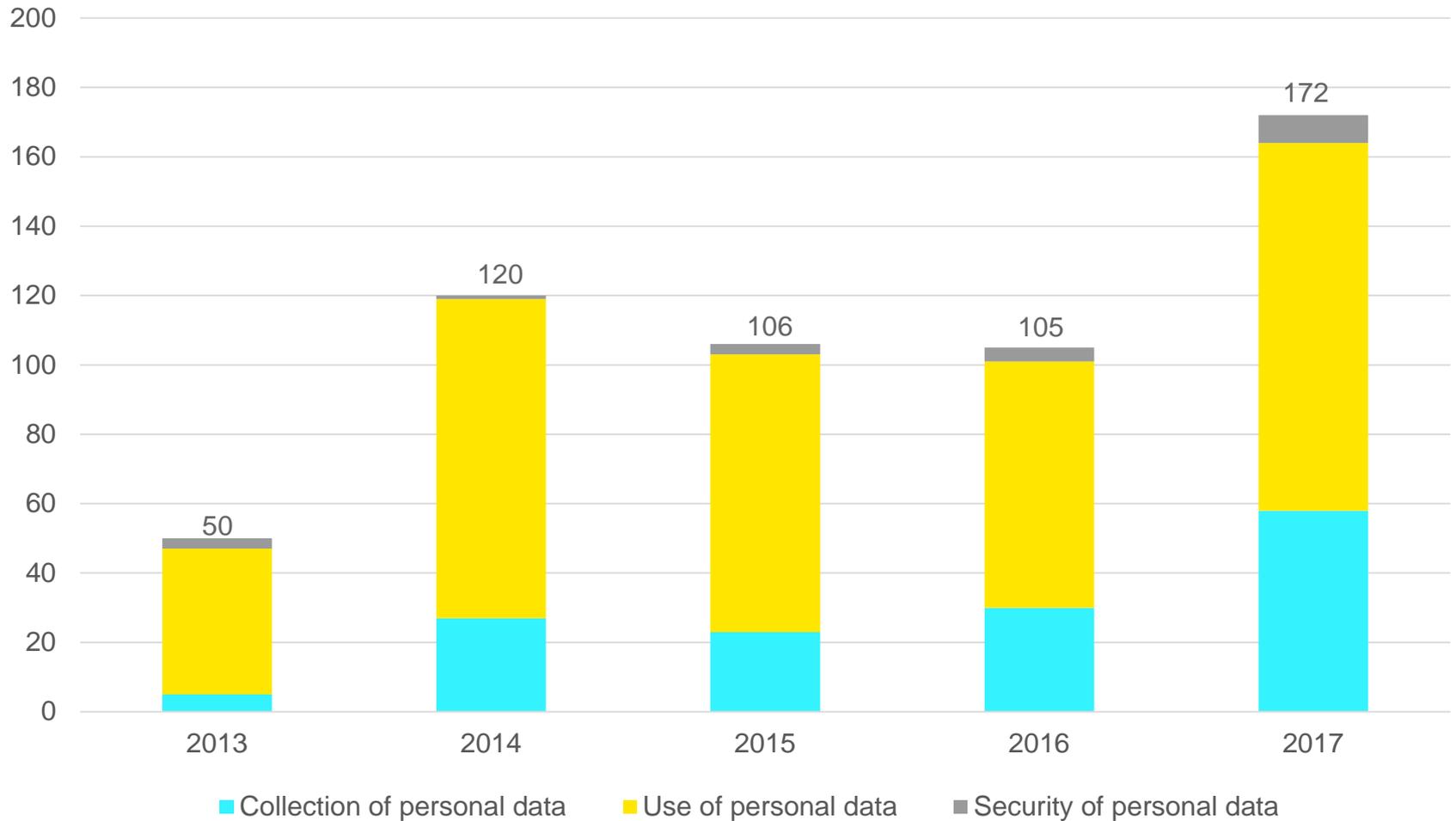
Privacy Concerns relating to Mobile Use and
Social Networking

6-Nov-2018

Total number of complaint cases received by PCPD

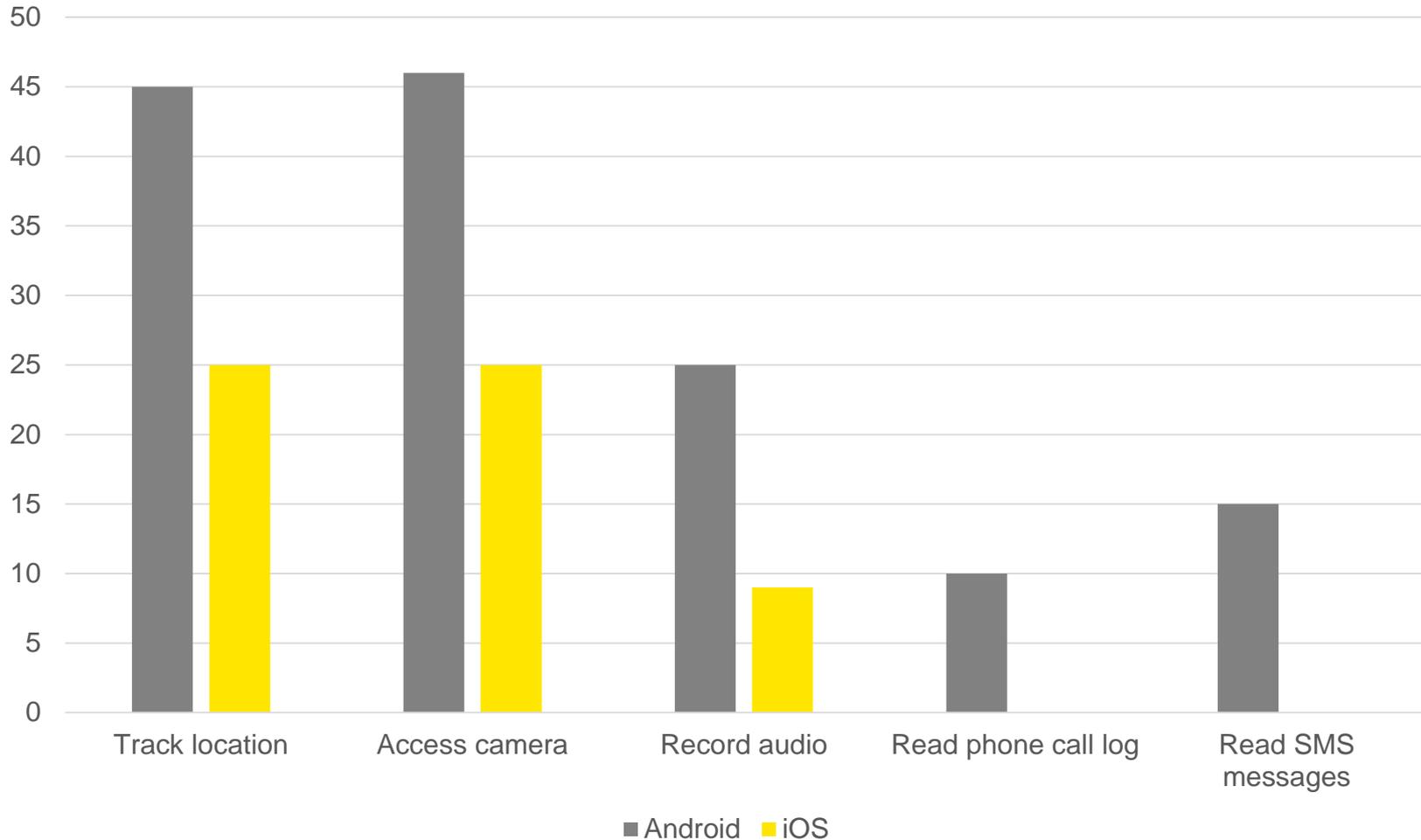


Complaints received by PCPD related to personal data in social media accounts



Source: www.info.gov.hk

Percentage by mobile apps that request risky permissions by Android & iOS



Source: <https://www.symantec.com/blogs/threat-intelligence/mobile-privacy-apps>



Agenda

1

**Personal Data (Privacy)
Ordinance (Cap.486)**

2

Mobile Use

- a) Development
- b) Privacy Concerns
- c) Practical Tips

3

Social Networking

- a) Social Media Usage in HK
- b) Security Incidents
- c) Privacy Concerns
- d) Practical Tips

1. Personal Data (Privacy) Ordinance (Cap. 486)

- ▶ ‘Personal data’ means any data -
 - ▶ (a) Relates directly or indirectly to a living individual (“data subject”)
 - ▶ Can be used to identify that person
 - ▶ (b) Exists in a form which can be processed and accessed

e.g.

Name	ID card number
Phone number	Medical record
Address	Employment record

- ▶ ‘Data user’ means a person who
 - ▶ Either alone or jointly or in common with other persons, controls the collection, holding, processing, usage
 - ▶ Liable as the principal for the wrongful act of its authorized data processor
- ▶ ‘Data subject’ means a person to whom personal data relates

1. Personal Data (Privacy) Ordinance (Cap. 486) (Cont'd)

Six Data Protection Principles

DPP1: Collection

Personal data must be collected in a lawful and fair way, for a purpose directly related to a function / activity of the data user. Data collected should be adequate but not excessive.



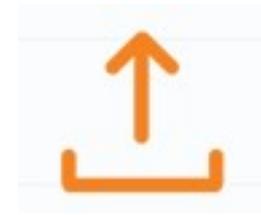
DPP2: Accuracy & Retention

Practical steps shall be taken to ensure personal data is accurate and not kept longer than what is necessary to fulfil the purpose for which it is used.



DPP3: Data Use

Personal data must be used for the purpose for which the data is collected or for a directly related purpose, unless voluntary and explicit consent with a new purpose is obtained from the data subject.



1. Personal Data (Privacy) Ordinance (Cap. 486) (Cont'd)

Six Data Protection Principles

DPP4: Data Security

A data user needs to take practicable steps to safeguard personal data from unauthorized or accidental access, processing, erasure, loss or use.



DPP5: Openness

A data user must take practicable steps to make personal data policies and practices known to the public regarding the types of personal data it holds and how the data is used.

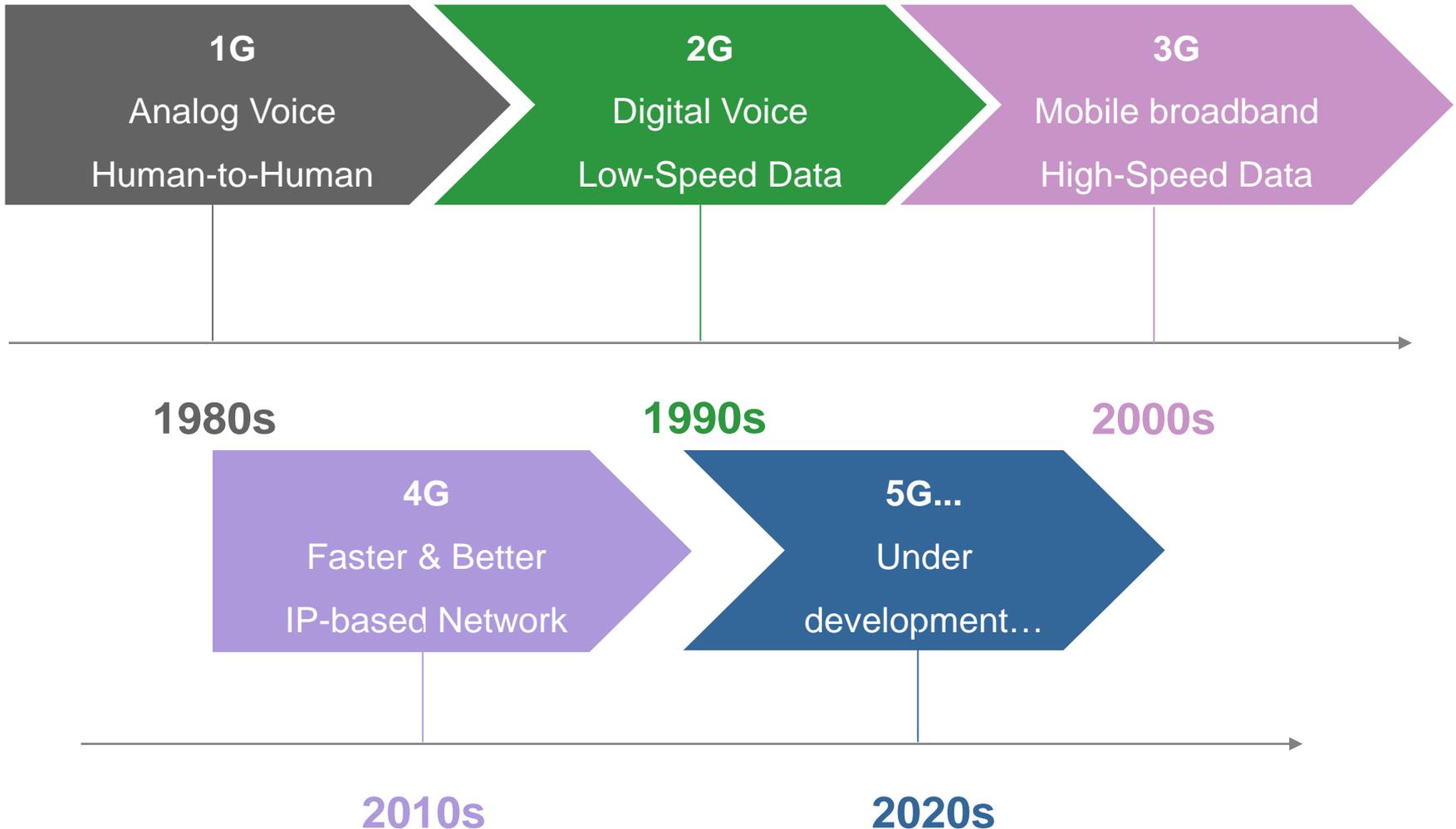


DPP6: Data Access & Correction

A data subject must be given access to his / her personal data and allowed to make corrections if it is inaccurate.



2a. Mobile Use - Development



2a. Mobile Use - Development (Cont'd)

Simple phone call

SMS

MMS

Mobile web access

IP telephone

Gaming services

HD mobile TV

Video conferencing

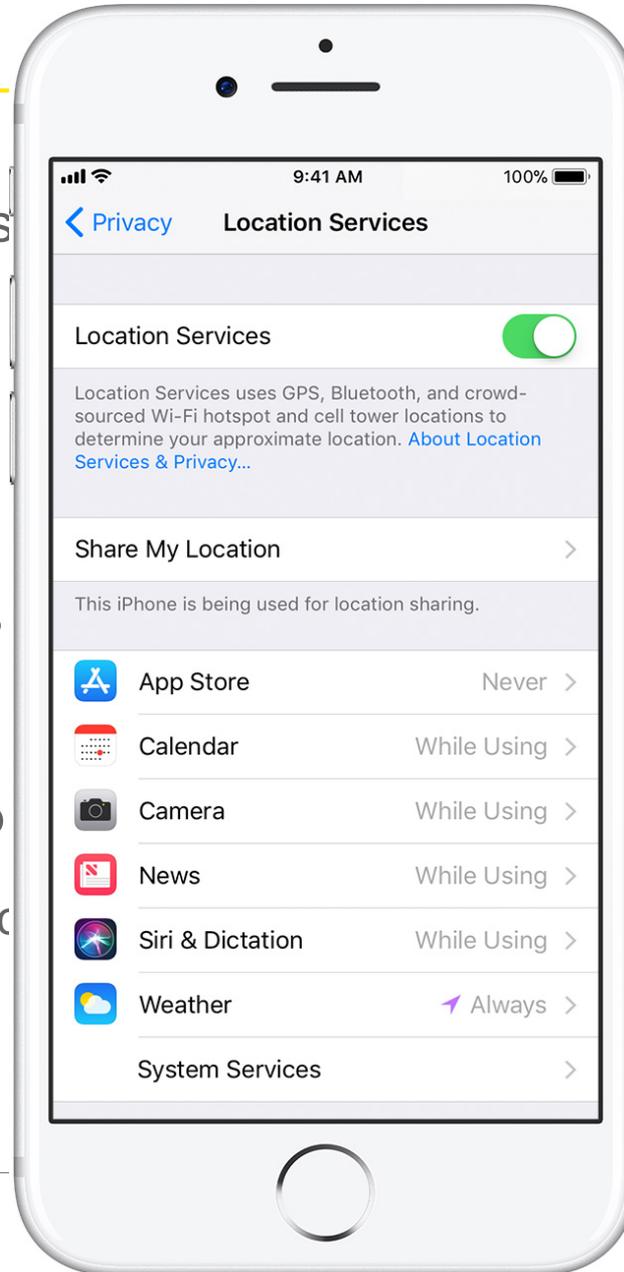
2b. Mobile Use - Privacy Concerns

- ▶ The increased **complexity** and **functionality** of mobile applications along with the frequent usage of **social media** have raised numerous security concerns and also **mobile malware**
 - ▶ Expander
 - ▶ Worm
 - ▶ Trojan
 - ▶ Spyware
- ▶ People are abusing the power and convenience of technology without having enough security awareness
 - ▶ Social media
 - ▶ Online shopping
 - ▶ Managing finances
 - ▶ Playing online games



2c. Mobile Use - Practical Tips

- ▶ Use a complex password
 - ▶ Minimum length of 8 characters
 - ▶ Alphanumeric
 - ▶ Non-sequential
 - ▶ Special characters
 - ▶ Do not use default passwords
- ▶ Beware of what apps you install
 - ▶ You can disable location services for individual apps



location
app

2c. Mobile Use - Practical Tips(Cont'd)

- ▶ Perform backup regularly
 - ▶ Know what subscribers have access to
- ▶ Erase all information from mobile devices
- ▶ Check security settings
 - ▶ Extra layer of protection
- ▶ Use applications for sensitive data
 - ▶ Do not use the camera



data leakage

home
783088885230

work
123456

Notes

Send Message

Share Contact

Add to Favourites

Share My Location

y

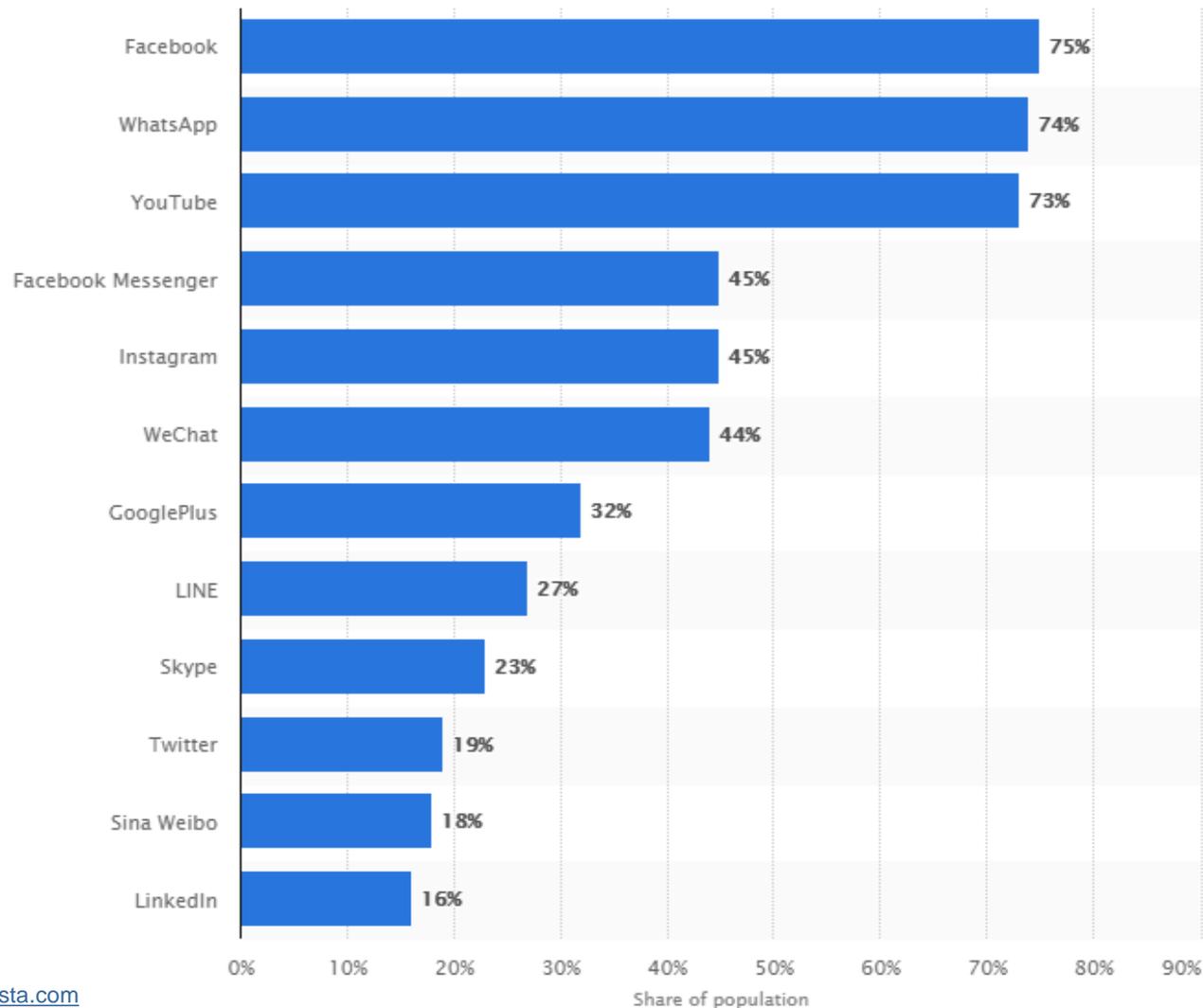
sensitive data

Reference:
https://www.apple.com/business/site/docs/iOS_S
<https://support.google.com/android/answer/90796>

2c. Mobile Use - Practical Tips(Cont'd)

- ▶ Download applications from the official app store
 - ▶ Dramatic increase in the number of mobile malware
 - ▶ Remove suspicious apps
- ▶ Connect to trusted Wi-Fi spots only
 - ▶ Man-in-the-middle attack, eavesdropping
- ▶ Update the OS regularly
 - ▶ Security patch
- ▶ Enable automatic screen lock
- ▶ Install proper anti-virus software

3a. Social Networking - Social Media Usage in HK (Q3 in 2017)



Source: www.statista.com

3b. Social Networking - Security Incidents

Prominent Twitter accounts compromised after third-party app Twitter Counter hacked

Jon Russell @jonrussell / 2 years ago

The New York Times

Facebook Security Breach Exposes Accounts of 50 Million Users



One of the challenges for Facebook's chief executive Mark Zuckerberg is convincing users that the company handles their data responsibly.

U.S. NEWS OCT. 9, 2018 / 7:16 AM

Goodbye Google+: Privacy breach spells end of social network

By Nicholas Sakelaris



Data Breaches Compromised 3.3 Billion Records in First Half of 2018

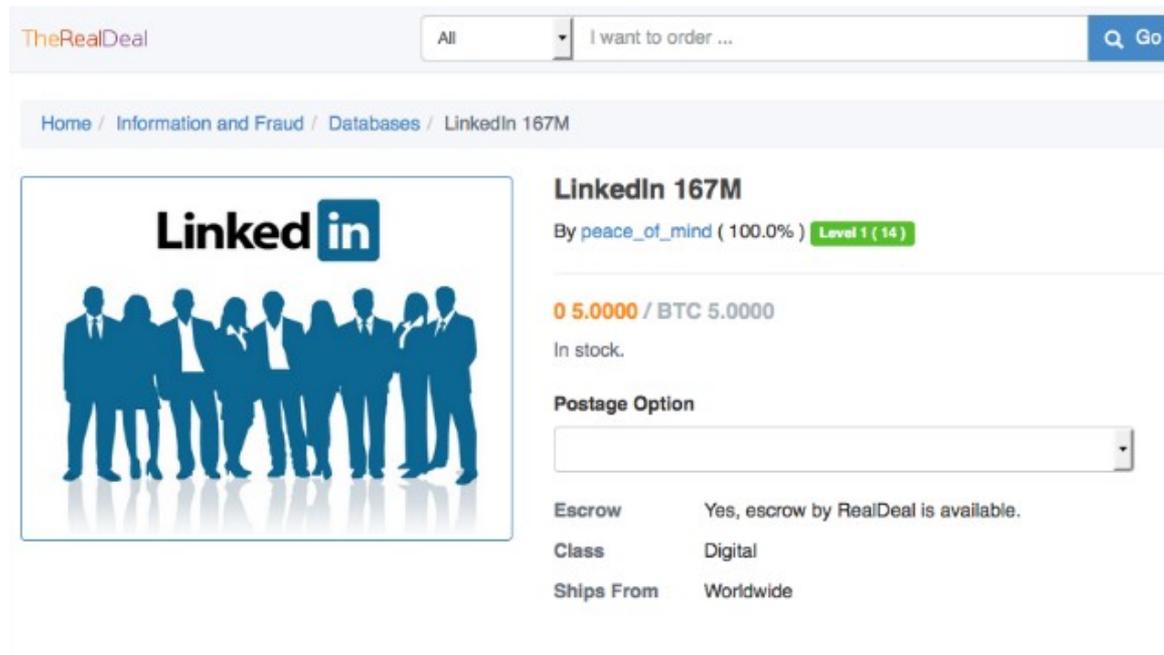
The Breach Level Index is a global database that tracks data breaches and measures their severity based on multiple dimensions

Gemalto, the world leader in digital security, today released the latest findings of the Breach Level Index, a global database of public data breaches, revealing 944 data breaches led to 3.2 billion data records being compromised worldwide in the first half of 2018. Compared to the same period in 2017, the number of lost, stolen or compromised records increased by a staggering 72 percent, though the total number of breaches slightly decreased over the same period, signaling an increase in

3b. Social Networking - Security Incidents(Cont'd)

▶ LinkedIn data breach

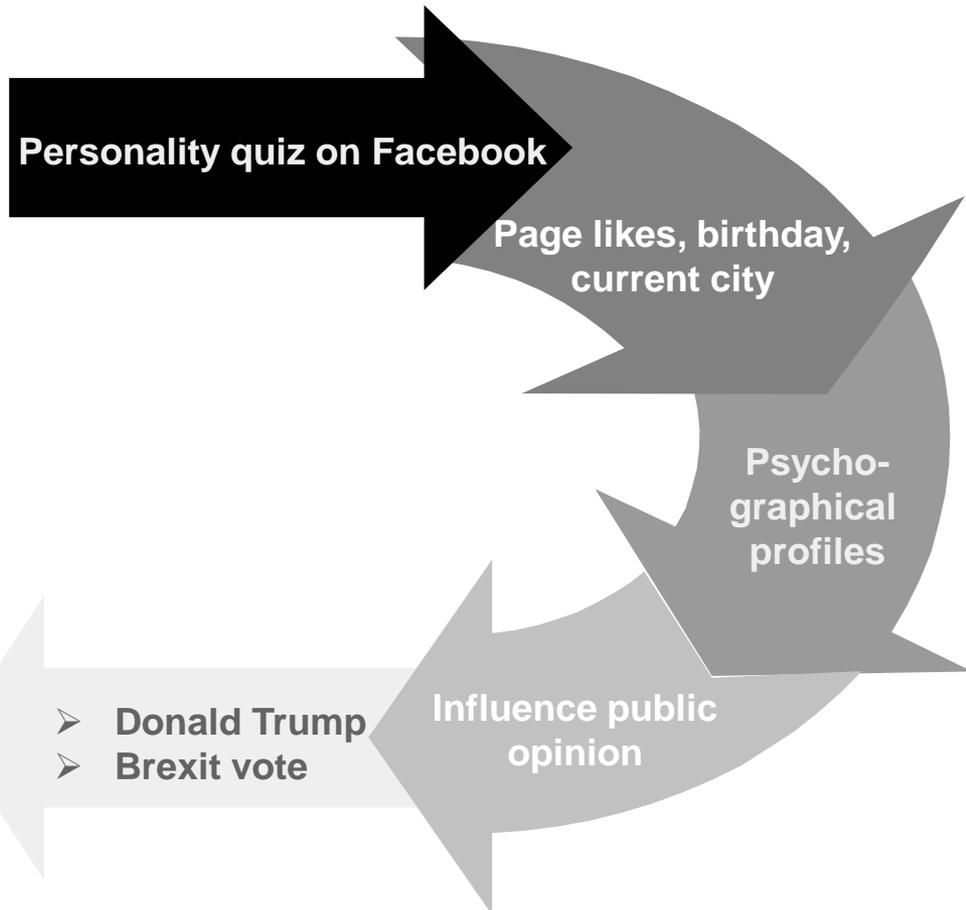
- ▶ Account information (Email address & password) of 117 million users have been hacked



The screenshot shows a marketplace listing for 'LinkedIn 167M' on the RealDeal platform. The listing includes a search bar at the top with 'All' selected and a search button labeled 'Go'. Below the search bar is a breadcrumb trail: 'Home / Information and Fraud / Databases / LinkedIn 167M'. The main content area features a large image of the LinkedIn logo and a group of business professionals. To the right of the image, the listing title is 'LinkedIn 167M', followed by the seller information 'By peace_of_mind (100.0%)' and a 'Level 1 (14)' badge. The price is listed as '0 5.0000 / BTC 5.0000' and the item is marked as 'In stock.'. There is a 'Postage Option' dropdown menu. At the bottom, there are details for 'Escrow' (Yes, escrow by RealDeal is available.), 'Class' (Digital), and 'Ships From' (Worldwide).

3b. Social Networking - Security Incidents(Cont'd)

- ▶ Facebook – Cambridge Analytica data scandal



3c. Social Networking - Privacy Concerns

▶ Social engineering

- ▶ One of the most prevalent social media threats
- ▶ Most popular tactic for cyber criminals

Gather personal information through social media platforms

Use a plausible fake account to establish trust

Start asking for specific information

- Project names
- Infected document
- Prepared website

3c. Social Networking - Privacy Concerns(Cont'd)

- ▶ **Celebrity name misuse**
 - ▶ Hackers registering a new account under the name of a celebrity
 - ▶ Spread misinformation and rumors
 - ▶ Extract followers' personal information

- ▶ **Compromised site**
 - ▶ Social networking site compromised with malicious code
 - ▶ Visitors would be susceptible to attack
 - ▶ Rogue advertisements and third-party applications

3d. Social Networking - Practical Tips

- ▶ Read the privacy policy
 - ▶ Personal Information Collection Statement (PICS) & Privacy Policy Statement(PPS)
 - ▶ Get to know how personal data will be handled
- ▶ Avoid providing excessive personal data
 - ▶ Consider the genuine need
 - ▶ Is the supply of the data obligatory?
- ▶ Check the privacy settings
 - ▶ You can control what to be shared and how



3d. Social Networking - Practical Tips (Cont'd)

- ▶ Be cautious about third-party applications
- ▶ A picture tells a thousand words
 - ▶ Pictures may contain information you do not intend to share
- ▶ No simple “delete” button
 - ▶ Things you disclose online may be copied or kept permanently
 - ▶ No control over who can read it
 - ▶ Obtain consents of your friends before disclosing their data
- ▶ Social networks ≠ entirely virtual
 - ▶ People could trace or identify you in the physical world

3d. Social Networking - Practical Tips (Cont'd)

- ▶ Remove unused accounts
 - ▶ Reduce the fragmented information left on the Internet
- ▶ Do not add random strangers as “friend”
- ▶ Do not use same passwords for multiple accounts
- ▶ Use new features with caution

THINK before you **ACT**

Appendix

<https://www.pcpd.org.hk/english/complaints/statistics/statistics.html>

<https://www.info.gov.hk/gia/general/201804/25/P2018042500268.htm>

<https://www.statista.com/statistics/412500/hk-social-network-penetration/>

https://www.pcpd.org.hk/english/data_privacy_law/ordinance_at_a_Glance/ordinance.html

<https://www.pcpd.org.hk/mobileapps/practice.html>

https://www.apple.com/business/site/docs/iOS_Security_Guide.pdf

<https://support.google.com/android/answer/9079631>

https://motherboard.vice.com/en_us/article/78kk4z/another-day-another-hack-117-million-linkedin-emails-and-password

<https://www.facebook.com/help/325807937506242>

<https://help.instagram.com/196883487377501>

<https://www.whatsapp.com/security/>

<https://www.symantec.com/blogs/threat-intelligence/mobile-privacy-appsk>

General Data Protection Regulation (GDPR) of the European Union (EU)

- Effective from 25 May 2018
- Note the extra-territorial effect
- Any EU presence and activities / EU data subjects elements (see Recitals (22) to (24))

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679&from=EN>

- The University's GDPR website: https://intraweb.hku.hk/reserved_2/gdpr/index.html

- The ISDM Policy website: <https://isdms.hku.hk>



The System and Practices in the University

- **The Privacy Policy Statement (revised version 2015):**
http://www.hku.hk/privacy_policy/
- **Code of Practice (revised version 2015):**
https://uis.hku.hk/web/gsabc/pdpo_cop.pdf
(portable storage devices, incident handling / reporting and other guidelines)



The System and Practices in the University

- Data Collection Statement
- Statutory Data Access / Correction Request Process
- Sub-committee for Information Security and Data Management, Information Technology Policy Committee (compliance / monitoring) (formerly the Central Compliance Team) - Note the Information Security and Data Management (ISDM) Policy which also covers personal data
- University Data Protection Officer and Personal Data Protection Coordinators
- Information Technology Services (advice / security measures / guidelines / training information):
<http://www.its.hku.hk/services/training/infosec/personal-data-protection>



The System and Practices in the University

The Public Expectation

Awareness and Education

GOOD PRACTICE



Thank you!



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