Agenda

➢ Why Data Protection?
➢ HKU Policies and Guidelines
➢ ISDM Policy
➢ Data Classification
➢ Good Practices for IT Security
Why data protection by you?

• DPP4

• Academic freedom
=> Very open firewalls

• Security is only as good as your weakest leak

HKU ITS Policies & Guidelines

• [http://www.its.hku.hk/about/policies](http://www.its.hku.hk/about/policies)
• Good advice on Information Security (IS)
• Regulations on what should not be done
  – Campus Network acceptable use policy
  – e.g. network scanning
• Privacy Policies
  – Personal Data Guidelines
  – Using External Web 2.0 Services for University Purposes
• Password Policy
ISDM Policy in a nutshell

➢ Information Security and Data Management Policy
➢ Launched in May 2017
➢ Define roles and responsibilities in a decentralized environment (three lines of defence, more in the next slide)
➢ The Council is the sponsor of the Policy
➢ See more https://isdm.hku.hk
# ISDM governance structure

## University-Wide Data/Information Governance

### Information Technology Policy Committee
Strategic oversight: information security, data management & information tech.

### Sub-committee on Information Security and Data Management
Oversight of operations in relation to information security and data management

<table>
<thead>
<tr>
<th>1st Line</th>
<th>2nd Line</th>
<th>3rd Line</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Central Administrative Offices, Faculties, Departments/Schools/Centres, Research Teams</strong></td>
<td><strong>University Data Protection Officer (Personal Data Privacy Advisory)</strong></td>
<td><strong>Internal Audit</strong></td>
</tr>
<tr>
<td><strong>Data Owners and Data Stewards</strong></td>
<td><em><em>Data &amp; Security Team of ITS (Data</em> &amp; Information Security Compliance)</em>*</td>
<td><strong>Governance</strong></td>
</tr>
<tr>
<td><strong>Processes, Procedures and Systems</strong></td>
<td><strong>Task Force on Mgt. of Research Data &amp; Records (Research Data Mgt. Advisory)</strong></td>
<td></td>
</tr>
</tbody>
</table>

Assess, support and ongoing compliance monitoring

### Data Custodians, Data Users
Day-to-day handling of data and security

* Including Personal Data Privacy
Data Classification Scheme

1. **Restricted**
   - Very sensitive in nature and strictly restricted by the University, the government or any agreements
   - Example: Sensitive information concerning a pending criminal investigation

2. **Confidential**
   - Intended for use by specific group of authorised personnel within the University and business partners
   - Example: Student and staff information (e.g., Contact phone)

3. **Internal**
   - Non-sensitive operational data that is intended for use within by members of the University and authorised services providers
   - Example: Internal policies

4. **Public**
   - Approved by the appropriate University authority for public consumption
   - Example: Press releases

Strict requirements are imposed
Workstation (PC)

➢ Use strong password, 10 - 18 characters with combination of alphabet and numeric

➢ Enable PC login password and screen saver password

➢ Screen lock or logout your PC when unattended

➢ Do not install Peer-to-Peer(P2P) software on PC that handles confidential data

➢ Physically secure your notebook PC, tablet PC

➢ Avoid using public computer to access confidential files

---

hku.hk security check report

Someone (most likely you) checked hku.hk on BreachAlarm to see if any email addresses in this domain have had their passwords compromised.

A password associated with one of your company’s email addresses has been compromised at least 21774 times. The most recent incident occurred on April 22, 2021.

Your employees should change any passwords that they created before this date as soon as possible. If your employees have used the same email/password combination for multiple websites, your business could be at risk of having additional accounts compromised.

Get notifications of future breaches!

Protect your business from future breaches by signing up to BreachAlarm’s Business Watchdog.
Storage

Data could be stored on personal PC, file server, mobile phone, Network Attached Storage (NAS), Cloud storage, files and folders... etc.

➢ Apply access control
  • Require user ID and password
  • Read, write, deny access
  • Logging
➢ Use encryption
➢ Backup regularly
Removable Storage

➢ Use encryption and password protected
➢ Erase the data after use (best reformat the USB drive)
➢ Don’t leave USB drive unattended
➢ Keep it safe
➢ Don’t use USB drive from unknown source
➢ Only store sensitive data on portable devices or media when absolutely necessary
➢ For storing personal data, adhere to the absolute necessary principle, seek permission and take protection measures (encryption) - see the Code of Practice
➢ Report to supervisor if lost USB drive that contains sensitive data

Guidelines on Electronic Communications and Storing Personal Data on Portable Storage Devices, Personally-owned Computers and Public Cloud Services
(http://www.its.hku.hk/about/policies/personal-data-guidelines)
Removable Storage

➢ Data Leakage Prevention ("DLP") Protection (See Code of Practice)
➢ USB PSDs are required to be initialized before any write access of the device and only read access is allowed.

- Logon HKU Portal
- Search for “DLP”
- Click on the link “DLP for PSD”
Email & File Protection

Information Rights Management (IRM) Solution - AIP

- allows individuals to set access permissions to files and email messages.
- only authorized person is granted access (permission) to an IRM-controlled document.
- Prevent content from unauthorized forwarding (applicable to mail message), editing, printing, faxing, saving, or copying (cutting and pasting) the content.
- Support major platforms: Windows(Full features), MacOS, Android, iOS
- Training: [http://www.isdm.hku.hk/communication](http://www.isdm.hku.hk/communication)
Cloud storage

Before uploading data to Cloud storage, you should consider:

➢ Privacy and confidentiality
➢ Data Encryption
   ▪ uploaded to, downloaded from, and stored in the cloud
➢ Exposure of data
   ▪ to cloud operator, local and foreign government or agency
➢ References
   ▪ Guidelines for Using External Web 2.0 Services
     (https://intraweb.hku.hk/local/its/web2guidelines/)
   ▪ PCPD Information Leaflet – Cloud Computing
     (https://www.pcpd.org.hk/english/resources_centre/publications/files/IL_cloud_e.pdf)
Mobile Security

“New Technology, old Privacy and Security issue”

➢ Lost or stolen mobile devices
  ▪ Enable screen lock
  ▪ Encrypt the data, such as email and documents
  ▪ Use Remote Wipe and Anti-Virus
  ▪ Beware of automatically login of company email & file server

➢ Malware and virus
  ▪ Steal bank details, company data, personal identities & email addresses

➢ Beware of apps sources and access rights
  ▪ Install from trusted sources only
  ▪ Beware of app requests of excessive permissions of devices
Phishing is the act of attempting to acquire information such as usernames and password by pretending from a trusted entity, e.g. ITS or other department of the University.

- **Signs of a phishing email:**
  - Unofficial “From” address
  - Urgent actions required
  - Generic greeting
  - Link to a fake website, sometimes with legitimate links

- **What to do if you receive phishing email**
  - Delete these suspicious emails
  - Don’t reply or click any link on them
  - Report to ithelp@hku.hk
Phishing email

Sample of phishing email

The University of Hong Kong

Dear User,

We noticed a violation of our services on your E-mail account and for this reason, your E-mail account will be closed if you fail to resolve the issue within the next 48 hours.

This will only take a moment...Click the "RESOLVE" link below and enter the requested details to complete the process.

RESOLVE

© 2012 The University of Hong Kong

Non-HKU Hyperlink
Http://evil.com/cheat_u/login.htm
Ransomware

Ransomware is malicious software which encrypts files and waits for a paid ransom, and in some cases, normal use of the infected computers cannot be resumed even a ransom is paid.
Ransomware typically propagates in the form of a Trojan horse which enters a computer through:

- a downloaded file
- emails with malicious attachments
- malicious website
- network vulnerability

Your PC is locked and files are encrypted:
To get the key to unlock your PC and decrypt files, you have to pay HK$10,000.
Protecting PC from ransomware

1. Regularly backup your PC data and keep a recent backup copy off-line.
2. Ensure anti-virus software is installed on your PCs and keep it up-to-date with the latest virus signature.
3. Keep the operating systems of your PCs up-to-date.
4. For suspicious emails, attachments/files and unsolicited web sites, please do not open them.
5. Do not enable macros in document attachments received via email.
6. Limit the privilege & access right of shared network drives.

Refer to HKU ITS web site
http://www.its.hku.hk/faq/infosec/awareness/ransomware
Thank You