



Safeguarding data security

Major Field of National Security	Module	Unit	Topic
Data Security	Technology	Changes Brought about by Technology	Safeguarding data security

Suggested Levels: S4-6

Summary of the Learning Topic:

The learning topic aims to guide students to understand the emerging threats to the data security of our country, and the importance of safeguarding data security in today's digital world.

Learning Objectives:

Content

To explore and develop understanding of the following:

- the emerging threats to the data security of our country;
- the importance of safeguarding data security in today's digital world; and
- our responsibility for safeguarding data security and how students can raise their schoolmates' awareness of data security at school.

Language

To develop English language knowledge and skills, e.g.

- the use of reporting verbs to introduce words/ideas of others

Learning Tasks:

- **Part 1 – Warm-up Activities:** Students understand through a video the emerging threats to data security.
- **Part 2 – Group Interaction:** Students participate in a group discussion about the issue of data security in China.
- **Part 3 – Individual Presentation:** Students respond to a question relating to the issue of data security.

Part 1 – Warm-up Activities

- i. Before exploring the topic, write down in the box below what springs to your mind when it comes to data security.

You may refer to the webpage on “Major Fields of National Security” (https://www.nsed.gov.hk/national_security/index.php?l=en&a=national_security_main_focus) for some ideas.



Suggested answers:

- Data security refers a state in which necessary measures are taken to ensure that data are effectively protected and lawfully used.
- Data security is not only related to the development, utilisation and security of data, but also closely related to national sovereignty, national security, social order and public interests.
- Data security risks are increasing because of the diverse types of data and ownership and complexity of data processing activities.
- Effective data security protection is very important to the development of digital economy.

- ii. Watch the following video from *The China Current* and answer the questions that follow.

Big Data Footprints



<https://chinacurrent.com/story/21072/big-data-footprints>

1. Explain why WeChat is considered a 'lead player' in the market.

[00:30 – 00:44] Over 1.2 billion active monthly users use WeChat to message friends, pay bills, book plane tickets, order takeout, crowdfund startups, donate to charity and much more.

2. According to the video, how are the data generated by Apps like WeChat used to influence users' behaviour?

[00:45-00:58] The data generated by Apps are used to streamline users' experience, so that what they see on their timeline is likely to reflect what they are seeking.

3. What change did the pandemic bring to the Chinese economy?

[01:17-01:30] The pandemic put pressure on the export-heavy Chinese economy, so manufacturers began to pivot to the local consumer market.

4. Cite an example from the video to show that businesses use data to predict what users might purchase and other important trends.

[01:30 – 01:49] A toothbrush manufacturer added electric devices to its line in response to search trends from Alibaba.

5. What is the 'vicious cycle' regarding the use of data?

[01:59-02:10] Algorithms reflect our individual tastes, but they also pre-select what we are seeing and thus what we purchase. The more that happens, the more data we generate again.

Part 2 – Group Interaction

Situation: Your class is working on a project on national security. Your group is going to discuss the issue of safeguarding data security. Read the article and conduct a discussion of 10-15 minutes in groups of 3-4. Provide evidence and support your arguments by quoting from the video in Part 1 and the article below.

Ministry urges vigilance on data security

By Yang Zekun | China Daily

The Ministry of State Security has called for heightened vigilance against persistent and covert risks to data security, as well as the strengthening of the protection of crucial information infrastructure and early detection of data security risks.

In a statement issued on Wednesday, the ministry cautioned that problems and risks, such as unclear ownership, unauthorised access and disorderly transactions, have emerged in data collection, storage, transmission and usage. Illicit activities such as data leaks, trafficking and misuse have increased, posing challenges to data security.

The statement emphasised the close links between data security, national security and public interests. It also cautioned that foreign intelligence agencies are often detected as being behind cyberattacks targeting China.

The ministry noted that in recent years, it has become more evident that some overseas organisations attempted to gain access to China's important data. However, Chinese national security agencies have promptly responded to crack down on these illegal and criminal activities in accordance with the law, effectively safeguarding data security and preventing further damage.

China has been a prominent victim of cyberattacks, with hackers and criminal groups frequently targeting its critical information infrastructure and key industries. The statement underlined that such intrusions endanger not only personal privacy and trade secrets, but also national data security.

According to a report by China Internet Network Information Center, as of December 2022, the number of Internet users in China had reached 1.067 billion.

(Adapted from: <https://www.chinadaily.com.cn/a/202308/17/WS64dd4e7da31035260b81c8ae.html>)

Discussion Topic:

Your class is working on a project on national security. Your group is going to discuss the issue of safeguarding data security. You may want to talk about:

- the importance of data security to China

Possible ideas:

- **Based on** the video and the article, there is a large population of Internet users and app users in China.
- As **mentioned** in the article, some overseas organisations had attempted to gain access to China's important data. Intrusions by hackers and criminal groups endanger not only personal privacy and trade secrets, but also national data security.
- Therefore, data security must be safeguarded for the welfare and wellbeing of the Internet and app users.

- what China has done to safeguard data security

Possible ideas:

- The Ministry of State Security **stressed** the need for heightened vigilance against persistent and covert risks to data security, as well as the strengthening of the protection of crucial information infrastructure and early detection of data security risks.
- The Ministry of State Security **cautioned** that foreign intelligence agencies were often detected as being behind cyberattacks targeting China.
- As **reported** in the article, Chinese national security agencies had promptly responded to crack down on these illegal and criminal activities in accordance with the law.

- how we can help safeguard data security

Possible ideas:

- Set strong and unique passwords
- Log out and lock the screen when not in use
- Consider the necessity of providing personal data when registering for websites/apps online
- Use wired network connections or secure Wi-Fi; be cautious with public Wi-Fi
- Limit data sharing
- Encrypt sensitive data
- Comply with relevant data protection laws and regulations (e.g. The Personal Data (Privacy) Ordinance) to protect personal data security
- Regular software updates and security audits to patch vulnerabilities and address potential security risks

- what can the school do to raise students' awareness of data security?

Possible ideas:

- Displaying information boards on safeguarding data security and emerging threats
 - Inviting cybersecurity experts to organise talks/seminars
 - Organising tours and visits to relevant organisations (e.g. Office of the Privacy Commissioner for Personal Data)
 - Encouraging students to research and present on different aspects of data security
 - Creating a social media reel and short videos on data security
 - Involving parents in workshops to ensure data security practices are reinforced at home
- anything else you think is important

Part 3 – Individual Response

In this part, each of the group members will take turn to **give a short speech of about one minute** on one of the following questions. Provide evidence and support your argument by quoting from the video in Part 1 and the article in Part 2.

1. What are some internal and external threats to our country's data security?

Possible ideas:

- Expanding population of apps users and Internet users
- Cyberattacks targeting China by foreign intelligence agencies

2. The rising mobile Internet usage is a potential threat to our country's data security. What are your views on this claim?

Possible ideas:

- The article reported that the number of Internet users in China had reached 1.067 billion as of December 2022.
- As Internet activities generate massive amount of data, risks to data security (such as unclear ownership, unauthorised access and disorderly transactions) may emerge.
- All Internet users can help safeguard data security (e.g. by exercising vigilance against persistent and covert risks to data security).

3. Wearable smart devices, commonly known as wearables, have become popular over the last ten years. Smartwatches like Apple Watch can collect health-tracking data for the users and allow them to review it later. Would you be concerned about data security if you wore a wearable smart device?

(Students' own answer)

Indirect Quoting

Quoting is one way to borrow others' words and ideas to provide evidence and support your argument. In an indirect quote, the writer's words are presented in another way without quotation marks. A change in the tense or sentence structure may be needed.



Reporting verbs are used to introduce words/ideas of others and sometimes show the attitude of the speaker/writer. For example:

- In the video, the journalist **highlighted** the emerging threats to data security.
- According to the article, the Ministry of State Security **recommended** strengthening the protection of crucial information infrastructure and early detection of data security risks.

The following table provides a list of common reporting verbs:

Functions	Examples
agreeing	admit, agree, accept, acknowledge, recognise, support
advising	advise, propose, recommend, suggest, urge
arguing and persuading	advocate, argue, caution, convince, prove
believing	assert, assume, believe, claim, insist, maintain
concluding	conclude, infer
disagreeing and questioning	challenge, debate, deny, disagree, doubt, oppose, question, refute, reject
discussing	comment, discuss, explore
emphasising	accentuate, emphasise, highlight, stress, warn
evaluating and examining	analyse, assess, compare, contrast, evaluate, examine, investigate
explaining and presenting	clarify, define, describe, explain, illustrate, mention, point out, present, remark, reveal, state

To learn more about the common features and skills in the academic use of English, visit the ***e-Learning Platform on Academic Use of English***:

<https://www.edb.gov.hk/attachment/en/curriculum-development/kla/eng-edu/Academic-Eng/e-platform/>

