**Media and Information Literacy Education**

**Unit 2: Identify the authenticity of information**

Topic: Identify the authenticity of information

Target: Form 1 – Form 4 students

Objectives: After this lesson, students are able to:

 (a) understand what fake news is;

 (b) know how to perform fact-checking;

 (c) understand how to verify the authenticity of information in social media.

Time: 35 minutes

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**Teaching Procedures**

1. **Pre-class Preparation: The Importance of Verifying and Screening Information**

Complete pre-class exercise: Students’ self-reflection on their abilities to verify the authenticity of information

1. **Classroom Teaching (See PPT for reference)**

1. What is fake news and its impact? (5 minutes)

Use PPT to explain the definition of fake news. Use the example “New Secrets for Longevity” to illustrate the impact of fake news. Teachers may add other examples.

2. How to identify “Deepfake”? (5 minutes)

Use PPT and Case 1: “Belgium Political Party Circulates a Deepfake Video of Donald Trump” to explain the concept of “deepfake”. Teachers may add other examples.

3. To verify the authenticity of information (23 minutes)

Use PPT and Case 2 to teach students how to apply the USER model and the steps to verify the authenticity of information on social media to process media information and use online information authenticity search engines for fact-checking.

**III. Summary and Learning Consolidation (2 minutes)**

Encourage students to be cautious and reflective in the Information Age, enhance their alertness against fake news, better equip themselves, and stay objective and critical.

**Student Notes**

**Pre-class Exercise: Students’ self-reflection on their ability to verify the authenticity of information**

|  |  |
| --- | --- |
| 1. Be skeptical towards information received.
 | (No) 1 2 3 4 5 (Always) |
| (ii) Find out the source of the information received and verify its authenticity. | (No) 1 2 3 4 5 (Always) |
| (iii) Do not comment on or share information which cannot be verified. | (No) 1 2 3 4 5 (Always) |
| (iv) Fulfill civic responsibilities by not spreading information on the Internet imprudently and arbitrarily. | (No) 1 2 3 4 5 (Always) |

**Total Score: \_\_\_\_\_\_\_\_\_\_\_\_**

If the total score you gain from (i) to (iv) is over 16 points, you have equipped yourselves with the capabilities of information verification. You are less likely to be deceived or misled by misinformation.

**1. What is Fake News?**

Fake news is disinformation deliberately fabricated to advertise or mislead the public for certain benefits. Fake news comes in different forms. It can be 100% false information. It can also be skewed and biased information, pure propaganda, misuse of data, or inaccurate and sloppy information or reporting. They contain different levels of falsehood and are presented in different ways but can all mislead the public.

In the Internet Era, it is easy to receive different kinds of news and information in large volume, which places people in a situation of “information overload”. People lack time to consider and verify the authenticity and quality of information. Thus, fake news has a higher chance to spread around. People are more likely to believe this information and this can lead to negative consequences to individuals and society.

**2. Impact of Fake News**

Fake news undermines the credibility of journalism. It even causes rumours and jeopardises the normal function of society.

Example of fake news:

A message circulated among WeChat groups titled “WHO announced a new list of secrets for longevity in October 2021” which included 20 items. The first secret on the list was “alcohol consumption”. It said that “drinking alcohol could have massaging effect on the circulatory system which could not be imitated by any exercise or diet.”

Through online search, the HKBU FactCheck Service did not find this longevity ranking announced by the World Health Organisation (WHO). On the contrary, WHO’s International Agency for Research on Cancer (IARC) had in fact listed alcoholic drinks and ethanol therein as carcinogens in 2007. Abusing alcohol could have disastrous effects on individuals and society. WHO had already devised and implemented a global strategy to combat the abuse of alcohol.

Source: HKBU FactCheck Service (8 December 2021) <https://comd.hkbu.edu.hk/factcheckservice/2021/12/08/drinking-alcohol/>

This fake news report can lead to serious adverse consequences. If alcohol consumption is misunderstood as a secret for longevity, people may be indirectly encouraged to drink more and lead to deterioration of health. This is contrary to WHO’s stance against alcohol consumption.

**3. How to identify “Deepfake”?**

Deepfake refers to the synthesis or superimposition of existing videos and images on a target image by using the “deep learning” algorithm of AI to forge the dynamic facial expressions of an individual. This is also known as the “face swap technique”. Apart from its application as special effects in entertainment production, deepfake technology has also been used for fraud.

How do we identify deepfake video?

Audience can pay attention to the inconsistencies and unnatural parts in the video, such as the character’s pupil colour, “spatial distortion” on or near the character’s face and discrepancies in light and shadow, etc. However, deepfake technology is becoming more mature and it is more difficult to spot with naked eyes. It is necessary to rely on other fact-checking methods in verifying the authenticity of a video.

**Case 1: A Deepfake Video of Donald Trump Widely Spread by a Belgian Political Party**

Socialistische Partij Anders, a Belgian political party, posted a video of the then US President Donald Trump’s speech in May 2018 on Twitter and Facebook, where it had been viewed over 20,000 times. The video showed Trump continually taunting Belgium for remaining in the Paris Agreement. However, his hair and mouth movements in the video were so unnatural that the video was later exposed to be a fake video produced by Deepfake.

Source: BuzzFeed News (20 May 2018)

<https://www.buzzfeednews.com/article/janelytvynenko/a-belgian-political-party-just-published-a-deepfake-video>

**4. Using the USER model to process media messages**

We can follow the four steps of USER to check the authenticity of media messages.

|  |  |
| --- | --- |
| Understanding | * Upon receiving a message, think about its background and meaning (such as from whom, where and when do you receive the information?)
 |
| Search | * Trace the source of the message and verify its credibility (such as who created this message? What is the purpose and the belief behind it?)
 |
| Evaluation | * Assess the impact of using the message (such as why has this message become viral? What are the values and ideas involved?)
 |
| Response | * Understand our responsibilities when responding to the message (such as what impact will the message have on individuals and society?)
 |

Source: The Hong Kong Federation of Youth Groups (2017)

**5. To Verify the Authenticity of Information on Social Platforms**

How to verify the authenticity of online information?

Generally speaking, it is helpful to search the text, names and keywords on various platforms, including Google, Facebook and Baidu. Functions such as adding (“ ”) before and after the keywords, using the “**reverse image search**” tool, narrowing down the search dates can also help you find clues. Key “tips” are listed below:

|  |
| --- |
| 1. Check the URL;
2. Check the date of issue;
3. Find out the source of information;
4. Compare the same content from other information sources;
5. Check whether the title and content are consistent;
6. Find out whether the evidence in the information is sufficient and reasonable;

 7. Reflect on yourself if you agree with the information based on your personal preference. |

**6. Fact-checking**

To identify fake news, students must learn how to perform “fact-checking”, visit fact-checking organisations and choose trustworthy and credible media. Students should also check a wide range of information sources, learn about and compare the information from different sources. Especially for major news, just like reporters, we should adopt the “two-source rule”, perform a cross-reference to verify the authenticity and minimise the possibility of being misled.

To avoid the “echo chamber” effect (i.e. an individual obtains highly similar information), we have to receive information and views from different stance and check the authenticity and quality of information. This can give us a more comprehensive and accurate view of the matter. In this Information Age, we must always remain cautious and reflective, maintain our objectivity and think critically.

The following search engines can help you check the authenticity of online information:

HKBU: <https://factcheck.hkbu.edu.hk/home/>

Annie Lab (HKU Journalism): <https://annielab.org>

**Case 2: Did the Government install face recognition machines to penalise people who do not follow traffic light instructions?**

In March 2021, a message circulated among WhatsApp groups had claimed that face recognition machines would be installed on roads in Hong Kong to penalise those who did not follow the traffic light instructions. A photo was also attached to the message (please check: <https://comd.hkbu.edu.hk/factcheckservice/2021/04/09/face-recognition>).

The photo showed a pedestrian light on a street in Hong Kong. The black box in red circle in the photo was the suspected "facial recognition machine” mentioned in WhatsApp groups. The source of the news remained unknown.

A comparison showed that the suspected “face recognition machine” had basically the same components as an electronic audible traffic signal.

After fact-checking, the Transport Department confirmed that the suspected "facial recognition machine" black box in the picture circulated among WhatsApp groups turned out to be an electronic audible traffic signal, which was a standardised facility to assist visually impaired persons when crossing the road. It was not equipped with videotaping or face recognition functions and was not intended to penalise people who failed to follow traffic light instruction.

Source: HKBU FactCheck Service (9 April 2021)

<https://comd.hkbu.edu.hk/factcheckservice/2021/04/09/face-recognition/>

In this case study, we can apply the 4 steps of USER model to examine the authenticity of the message.

|  |  |  |
| --- | --- | --- |
| Understanding | Who released the message? Was it released recently? Was the information source credible? | Verdict: This message was from WhatsApp and we do not know the sender nor the actual time of delivery. |
| Search | Could the source of message be verified? Was it credible? What was the motive of the sender? | Verdict: The sender was not known by name and no other information can be verified. As such, it had low credibility. The motive of the sender was questionable and it might be a prank. |
| Evaluation | Evaluate the impact of using this message (such as would the public be interested in the content? Were there any underlying issues?) | Verdict: The message became viral because people were concerned about their personal privacy. Therefore, the incident attracted widespread attention.  |
| Response | Before forwarding the message, did we understand and agree with the message? What would be its impact on individuals and society? | Verdict: The authenticity of the message was suspicious. We should not trust it recklessly nor forward it to others instantly to avoid spreading fake news. |

Conclusion: We should be on constant alert of suspicious information on the Internet and always think critically. Students can check the authenticity of information through credible fact-checking organisations. This case, for example, can be found in the HKBU FactCheck Service Center.

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