

## Unit 1 Technology and Society

**Theme:** Believe it or not - The Credibility of Information on the Internet

**Objectives:**

1. To develop the capability to acquire information from the Internet.
2. To develop critical thinking skills in assessing the credibility of the information so acquired.

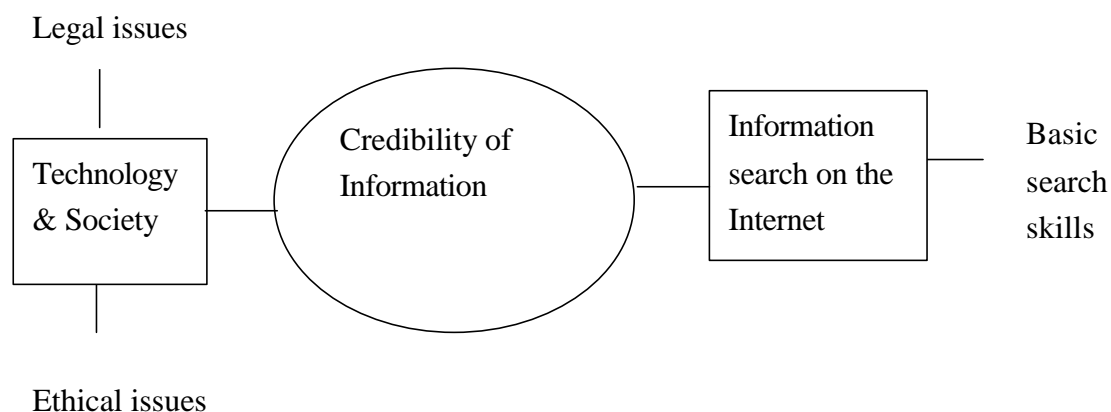
**Duration:** 2 x 40 minutes

**Level:** Secondary 1

**Contents:**

1. Information search
2. Assessing the credibility of information

**Concept Map:**



**Introduction**

In the SARS incident, the almost costless and rapid transmission of negative or even false information about SARS tended to flood the media; while positive information such as the effective treatment of SARS remained elusive. This led to the somewhat exaggerated perception about the danger of the disease. This could sometimes drive the public into a panic.

This learning unit uses the SARS incident to demonstrate the vast impact of information on the Internet. It also aims to highlight that the accessibility of accurate, timely and transparent information about the disease is crucial for educating the public about its real risks and for reducing fears and uncertainties. Meanwhile, individuals should also be prepared to evaluate the accuracy of the abundantly available information on the Internet.

### Intended Learning Outcomes:

Learning Elements \ Capability	Knowledge	Skill	Attitude
Information search on the Internet	Be aware of the credibility issue of information available on the Internet.	Develop the ability to search and present information independently or collaboratively  Develop the ability to evaluate the accuracy of information.	
Technology and Society	Understand issues related to the use and advancement of technology, including legal and ethical issues.		Appraise the impact of technology on our personal and social lives.

### Learning and Teaching Sequence

- Teacher discusses with students the following topics referring to the SARS incident as an example:
  - The Internet as a new media VS traditional mass media in disseminating information
  - The problem of inaccurate information accessible through the Internet.
 Teachers may make use of the following case for class discussion:

The public panicked when a 14-year-old boy distributed a fake news report article disguised in the design of a website related to a local newspaper (Ming Pao). The article claimed that the government was about to declare Hong Kong as an infected area. Immediately, people poured into supermarkets to stock up on food.

The panic jolted the Hong Kong government into action. It immediately called a press conference to debunk the rumour. The Government also sent requests to reporters through cellphone text messages, fax, e-mail and phone calls for clearing the rumour as quickly as possible.

2. Teacher introduces the skills for searching and verifying information on the Internet. Teacher may make use of the advanced web search page provided by some search engines (e.g. Yahoo.com and Google.com) for demonstration purpose. They provide a very convenient interface for creating a specific search. Useful web search techniques may include the following:
  - Identifying keywords
  - Boolean AND
  - Boolean OR

Regarding the skills for verifying information, the following evaluation criteria may be introduced to students:

- Authority
- Accuracy
- Purpose
- Currency
- Comprehensiveness

There are plenty of reference websites with detailed discussion on the issue. Some of them give very interesting examples on fake information from the Internet, together with ways to deal with them. An example especially designed for students is maintained by the Hong Kong Education City.

3. Teacher asks students to verify a piece of suspected news / information on the Internet. A suggested topic is the “effectiveness of portable ozone generators”. These ozone generators are sold as air cleaners for protecting the owner from SARS. The vendors make statements and distribute materials on the Internet that

lead the public to believe that these devices are always safe and effective in controlling air pollution and even killing SARS virus.

4. Students are divided into groups to investigate the accuracy of such information. Students should take into account the pro and con arguments as well as related supporting evidences. Students are encouraged to collect useful information from various sources such as websites and newsgroups.
5. Students in groups evaluate the evidences collected and draw up a conclusion on the accuracy of the suspected information.
6. Each group will do a presentation of its findings to the class. Teacher gives feedback to each group and supports the students throughout the process.

### Evaluation

<b>Learning Expectation</b>	<b>Assessment</b>	<b>Assessor</b>
Internet skill: ability to search for information	Observation & presentation	Teacher and peer
Demonstrate the understanding of legal and ethical issues related to the use and advancement of technology in the media	Observation & presentation	Teacher and peer
Ability to assess the credibility of information secured from the Internet	Observation & presentation	Teacher and peer

### Extended Learning Opportunities in TE

If time allows, teachers may carry on with the following suggested learning elements / activities:

- How information flow and information control can affect the public's understanding on the SARS issue.
- The pros and cons of free information flow. Teachers may make use of the following case for class discussion:

During the early local outbreak of SARS, the government refused to post the lists of buildings with confirmed/suspected SARS patients. It claimed that the information might arouse unnecessary public panic.

However, on 12 April, the Department of Health started to post on its website two lists of buildings with confirmed/suspected SARS patients who have been hospitalized. The lists were updated daily. The main purpose claimed was to encourage residents and building management offices to adopt stringent hygiene measures to prevent spreading of the infection.

## Useful Websites

### The Internet as a New Media

- ★ The Internet as a New Media  
<http://www.mmu.ac.uk/h-ss/sis/bics36/media.htm>
- ★ Multimedia Broadcasting and the Internet  
[http://www.isoc.org/inet96/proceedings/b3/b3\\_2.htm](http://www.isoc.org/inet96/proceedings/b3/b3_2.htm)

### Web search techniques

- ★ Using Search Engines - A Tutorial  
<http://home.sprintmail.com/~debflanagan/engines.html>
- ★ Google Advanced Search  
[http://www.google.com.hk/advanced\\_search?hl=en](http://www.google.com.hk/advanced_search?hl=en)
- ★ Yahoo! Advanced Web Search  
<http://search.yahoo.com/search/options?p=>

### How to evaluate information found on the Internet

- ★ 網路大迷信：面對網上資訊四大忌  
<http://www.hkedcity.net/article/science/020207-011/>
- ★ 蕃薯藤專題-網路謠言  
<http://feature.yam.com/urbanlegends/>
- ★ Criteria for evaluation of Internet Information Resources  
[http://www2.vuw.ac.nz/staff/alastair\\_smith/evaln/](http://www2.vuw.ac.nz/staff/alastair_smith/evaln/)
- ★ Evaluating Information Found on the Internet  
<http://www.library.jhu.edu/elp/useit/evaluate/>
- ★ Evaluating Internet Information  
<http://www.lib.vt.edu/research/libinst/idle/evaluating.html>
- ★ Evaluating Internet Research Sources  
<http://www.virtualsalt.com/evalu8it.htm>
- ★ The Good, The Bad & The Ugly: or, Why It's a Good Idea to Evaluate Web Sources  
<http://lib.nmsu.edu/instruction/evalcrit.html>
- ★ Evaluation of Information  
<http://alexia.lis.uiuc.edu/~janicke/Eval.html>
- ★ Information Accuracy  
<http://gil.com.sg/education/general/eval-info.html>

Ozone generators as air cleaners

- ★ "Ozone Generators that are Sold as Air Cleaners: An Assessment of Effectiveness and Health Consequences"  
<http://www.epa.gov/iaq/pubs/ozonegen.html>
- ★ How stuff works  
<http://www.howstuffworks.com> (Search key: ozone generator)
- ★ 臭氧陰離子殺菌機 (廣告)  
<http://o3.liv.idv.tw/>
- ★ 過度使用臭氧機來殺菌 小心致癌! (東森新聞網)  
<http://www.ettoday.com/2003/03/07/91-1422156.htm>
- ★ 臭氧(O3)可以在生活環境中使用嗎? (台大環境品質檢驗室)  
<http://140.112.208.72/Internet%20V2/data/FAQ.htm#>
  
- ★ 車廂徹底潔淨 – 負離子除菌 (新聞)  
<http://www.singtao.com/search/fullstory4print.asp?andor=or&year1=2003&month1=3&day1=6&year2=2003&month2=6&day2=6&category=all&id=20030414m06&keyword1=&keyword2=>
- ★ 解構學童防災裝備 (新聞)  
<http://www.singtao.com/search/fullstory4print.asp?andor=or&year1=2003&month1=3&day1=6&year2=2003&month2=6&day2=6&category=all&id=20030515g06&keyword1=&keyword2=>

Relevant News

- ★ 少年黑客發假消息落網 (新聞)  
<http://www.singtao.com/search/fullstory4print.asp?andor=or&year1=2003&month1=4&day1=2&year2=2003&month2=4&day2=2&category=all&id=20030402a02&keyword1=&keyword2=>
- ★ HK Govt uses SMS to deny SARS rumours (news)  
<http://www.mobilecommerceland.com/Tmpl/article.asp?CID=1&AID=19255&Tcode=NW&T1=29/5/2003>