

**CAT 4 RESOURCE DEVELOPMENT**

**Group 4-092**  
**ONLINE SECURITY**

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## **ABSTRACT**

Online Security is a project seeking to help teenagers stay safe online. It seeks to do so by creating two resources. The first resource is a website. The website provides information on how to identify and prevent teenagers from falling victim to fake news and phishing scams. However, some teenagers of around ages 13 and 14 still do not have an electronic device that they can use. Therefore, there is also a brochure that was created to help those that do not have electronic devices. The brochure provides an introduction to fake news and phishing scams. Through the two resources, Online Security seeks to prevent teenagers from falling victim to fake news and phishing scams in the future.

## **1 INTRODUCTION**

### **1.1 Rationale**

According to an online survey by Statista, only 46% of high school students or lower are able to identify fake news in Singapore. This is worrying as they may unknowingly spread the fake news to others. According to a report by the Cyber Security Agency of Singapore (CSA), there were 47,500 cases of phishing here in 2019, compared with 16,100 cases in 2018. This is a sign that teenagers have to learn how to stay safe online.

### **1.2 Objectives**

We wish to equip netizens with the skills and information to stay safe from potential dangers in the digital world.

### **1.3 Target audience**

The target audience is teenagers of around age 13 and 14.

## 1.4 Resources

The resources created for this project was a website which provides information on fake news and phishing, and a brochure which had a basic introduction to fake news and phishing too. People who wanted to find out more on fake news and phishing could scan the QR code on our brochure to access our website.



## ONLINE SECURITY

**Hope this information is helpful  
to ensure your safety online!**

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Hwa Chong Institution



Scan this QR code to fill up a feedback  
form!

**References:**

Luke Irwin. (2020). 5 ways to detect a phishing  
email. Available:  
<https://www.itgovernance.co.uk/blog/5-ways-to-detect-a-phishing-email>

Learn about the dangers of the  
virtual world, and how not to fall  
victim to them!



Source: <https://pixabay.com/illustrations/hacker-hacking-theft-cyber-malware-5027679/>

Based on a survey that we conducted a few months  
back, we have found out that many teenagers are  
not educated on the dangers of the digital world.  
Thus, we created this brochure to educate teenagers  
about fake news and phishing.

### INTRODUCTION TO FAKE NEWS

As the name implies, fake news is information that is not true. With the increasing advancements in technology and ease of access to digital equipment, spreaders of misinformation can now operate at much higher paces and much tighter budgets than ever before, with the hidden intentions such as influencing the public's opinion on politics, or to put a corporate in better light to improve sales. Thus, one must be wary to not trust everything that is presented in front of them.

To prevent these from taking place, one must take note of the following:

1. **Check the source of information.** Is the source credible?
2. Are they **from an official news outlet**, or are they a **made up site**?
3. Does the source **have a political alignment**?
4. Is the source **known for spreading false information**?

### INTRODUCTION TO PHISHING

Phishing is something that people use nowadays to phish or "fish" for personal information. They do this by pretending to be someone else, usually a trusted company or person. This is dangerous as if these people have your personal information, they may use it to hack your accounts and may even use it to steal your money.

1. **Learn how to spot phishing emails.** We can do this by seeing if the email is sent by a public email domain. No legitimate organisation will send emails from an address that ends '@gmail.com'. Most organisations will have their own email domain and company name, such as Google's '@google.com'.
2. **See if the domain name is misspelt.** For example, the Gimlet Media podcast 'reply all' demonstrated how difficult it can be to spot a misspelt domain name. Phia Bennin, the show's producer, hired an ethical hacker to phish various employees. The hacker bought the domain 'gimletnmedia.com' (that is r-n-e-d-i-a, rather than m-e-d-i-a) This was so successful that it successfully phished the show's hosts, Gimlet's Media's CEO and it's president.

1. How to differentiate fake news from real news?
2. What are the negative effects of fake news?
3. What are some common mistakes when identifying fake news?
4. How to prevent phishing attacks?
5. What are some examples of phishing attacks?

Want to find out the answers to these questions?  
Go to our website via the QR code



*Scan me*

or search up  
<https://sites.google.com/student.hci.edu.sg/online-security/home>

## 2 REVIEW

Other existing websites on the internet had content about fake news and phishing, but the information was all scattered among different websites. Meaning a website would not have much information about the topic and it was difficult to view all of them. There could be a better way to organise them better.

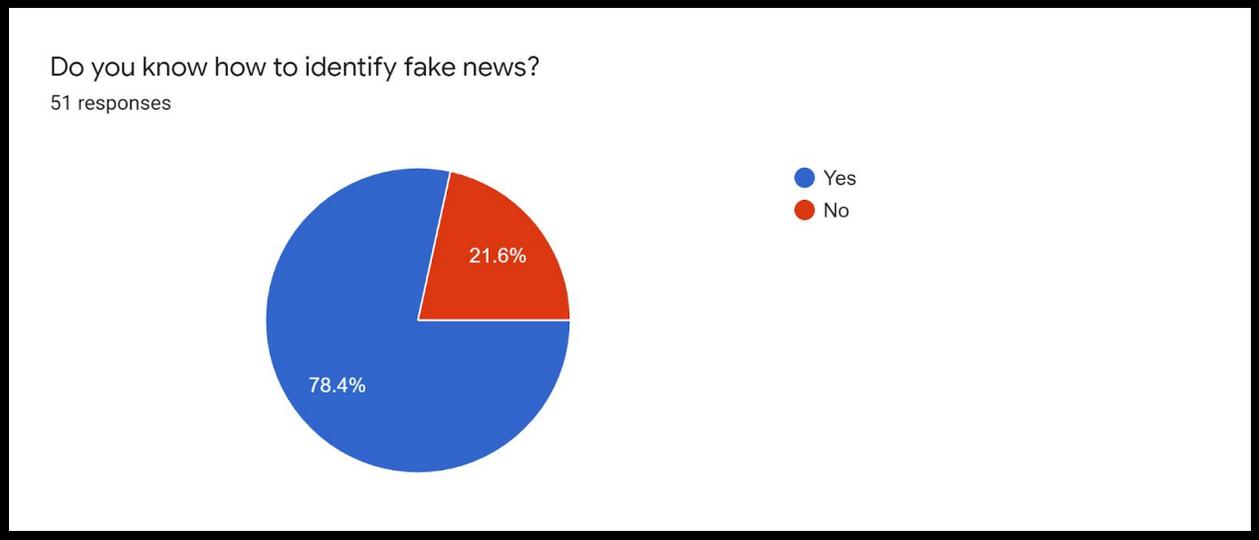
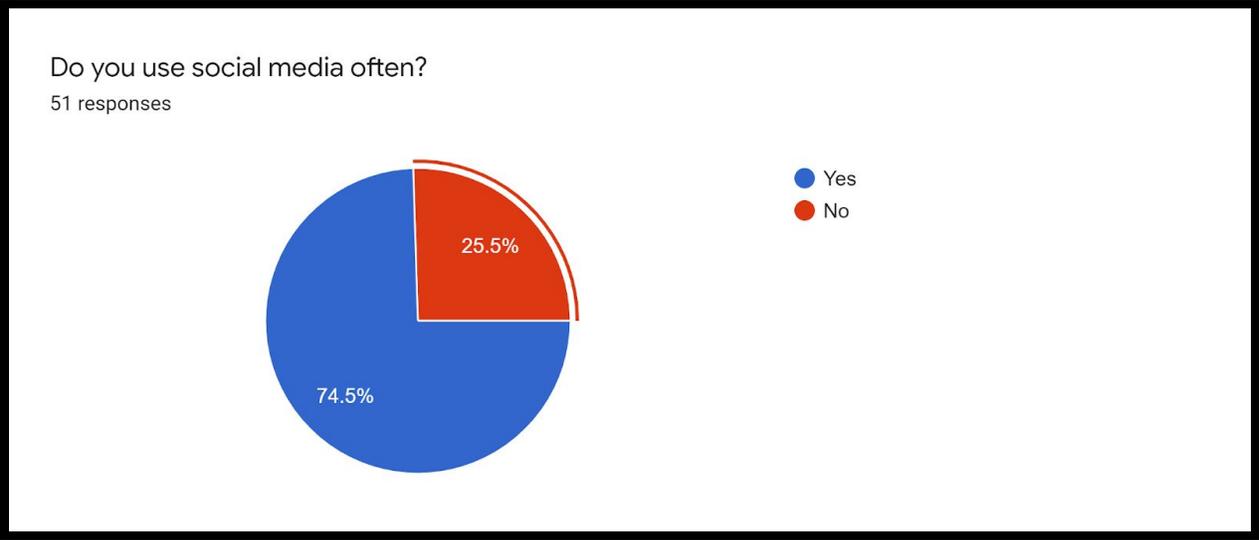
## 3 METHODOLOGY

### 3.1 Needs Analysis

A Needs Analysis was conducted to ascertain the relevance of this project. A few questions were constructed to establish the respondents' understanding on Online Security. There were a total of 51 respondents. Indeed, quite a number of the

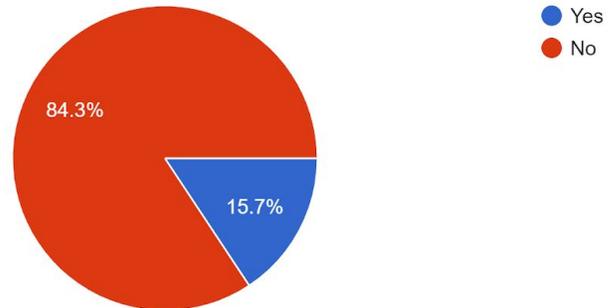
respondents' indicated that they did not know how to identify fake news and how to prevent phishing scams.

### 3.2 Survey Results



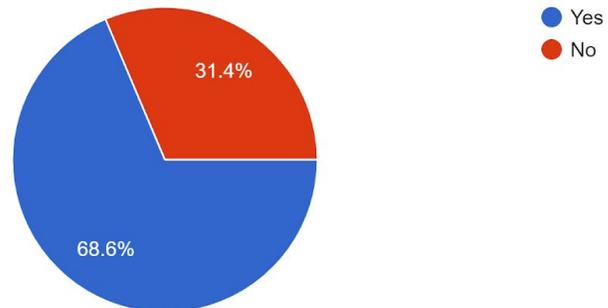
Do you forward messages when you are unsure of it's authenticity?

51 responses



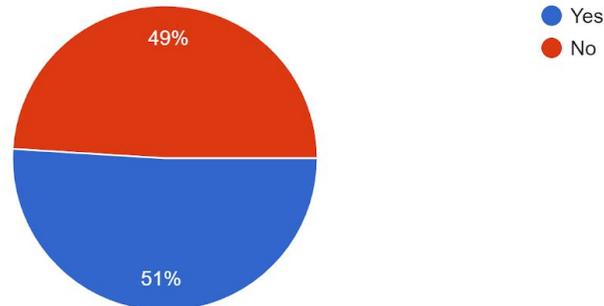
Do you know what negative effects fake news have?

51 responses



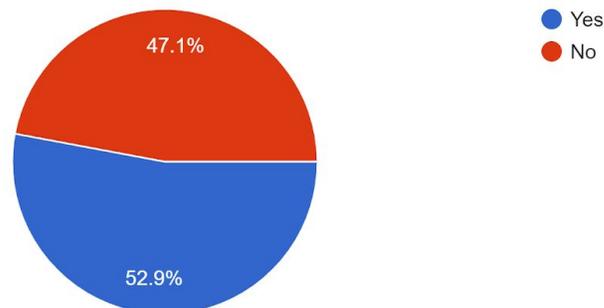
Do you know what phishing is?

51 responses



Do you think you would be able to identify phishing if you saw it?

51 responses



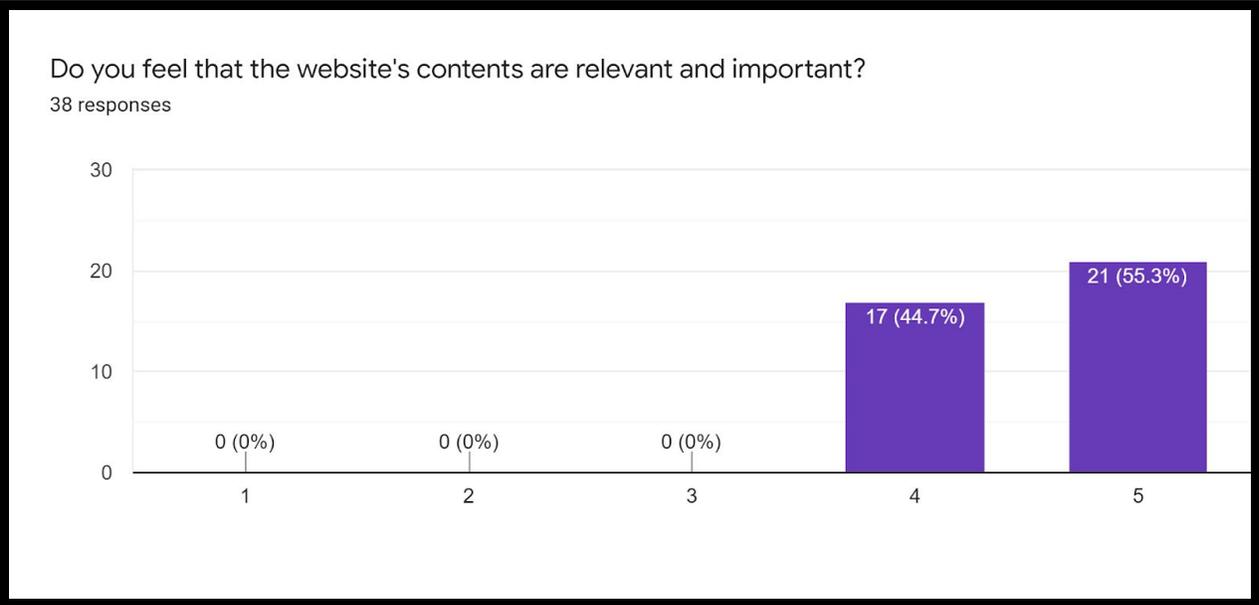
### 3.3 Development of Resources

Research on fake news and phishing scams were done at the start of the year. The research was then collated and uploaded to the website which was created. The basic introduction to fake news and phishing scams were also uploaded onto a google document and then printed out to form the brochure.

### 3.4 Pilot Test

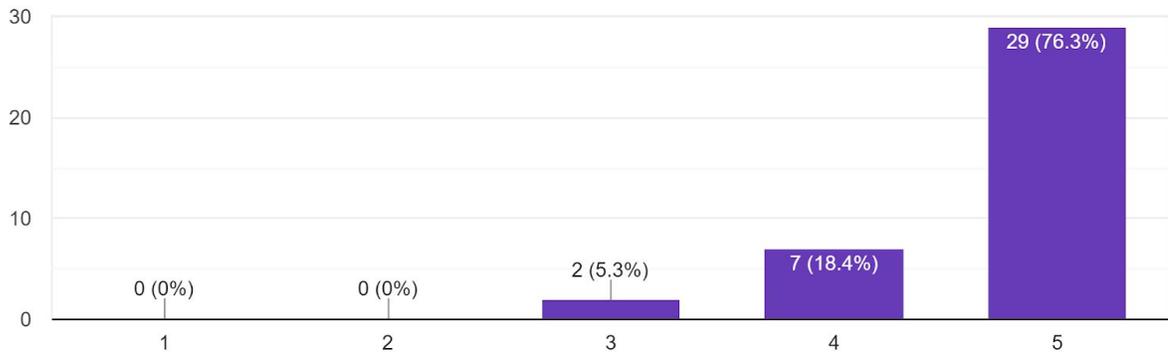
A Pilot Test for the website was administered to a total of 50 students of ages 13 and 14, however there were only a total of 38 responses. Another Pilot Test for the brochure was administered to a total of 20 Sec 1 students, however there were only a total of 13 responses. Generally, the feedback was positive and they all said that it was useful and relevant in helping them identify fake news and prevent phishing scams. There was also some crucial feedback and changes have been made accordingly.

The Website:



### How well did you understand the information?

38 responses



I don't know

Not enough vibrant and interesting colours.

Not enough pictures to convince readers to continue reading (ADD MORE PICTURES OR I WILL BE SED).  
Quite a few typos that causes misinterpretation (go check ur grammar)!

it was lacking spiciness

I don't understand anything u said why fishing become spell with p

Well there I don't think there is much lacking. Great work, very helpful and digestible content. Thank Uou

The website mentions some installations/extensions/applications, but did not say where we are supposed to get it.

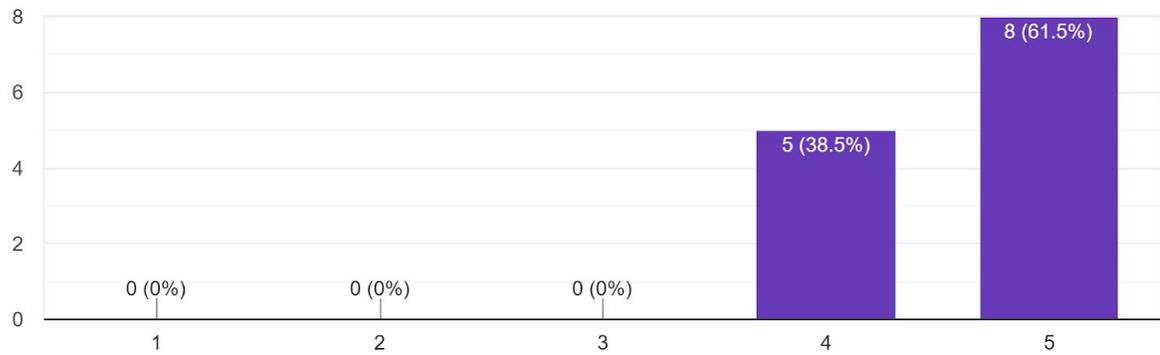
Nothing its goooood

Not much maybe some more notes?

The Brochure:

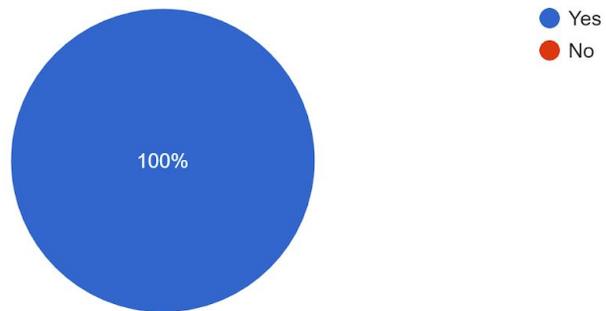
How well did you understand the brochure?

13 responses



Did the information in our brochure educate you about the introduction to fake news and phishing?

13 responses



Its excellent

a little boring :P

it is already very good

Maybe less content? The words are too tightly packed and hard to read. The main points will do.

Perhaps add a picture of a real phishing message if possible, other than that the brochure is great!

Perhaps add a few more pictures describing content instead of words so people will be able to visualise the message easier

Nil

Not much

try to make it easier to read by using bullet points, shortening your big chunks of paragraph, etc 🙄👍🙄

#### **4 Outcome & Discussion**

Although the project received positive feedback when pilot tested, a decision was made to organise the website better and put the information in the brochure into bullet points for it to be read easily.

The resources made were aimed to reach out to students with electronic devices. It served as a convenient and concise platform for students to access information on fake news and phishing scams.

If we had more time, we would have perhaps added a quiz in the website to improve interactions between readers.

#### **5 Conclusion**

Online Security had been a challenging project to undertake as it required many hours of researching on a topic that was not well known amongst the group. The whole project

journey had enabled the group to develop many skills. Critical thinking, Creativity, Perseverance and Patience were needed to complete the project.

## **6 References**

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