CAT 4 RESOURCE DEVELOPMENT

Group 4-17

Project ProPrivacy

Yap Ze Kai 4P1 (33)

Li Aoxiang 4P1 (20)

Zhu Qixuan 4P1 (34)

Yeo Zhao Cheng 4A1 (34)

ABSTRACT

Project ProPrivacy is a project group from Hwa Chong Institution consisting of members Yap Ze Kai, Li Aoxiang, Zhu Qixuan and Yeo Zhao Cheng. Project ProPrivacy's final resource package consists of a website that hosts the following information in a condensed manner: facts and infographics on Internet privacy, consequences of Internet privacy, quizzes to test on one's knowledge of Internet privacy, steps to take to prevent the loss of internet privacy and an exclusive interview with a professional from the Agency for Science, Technology and Research (A*STAR). This exclusive interview helps to validate our project with an expert's opinion and insights, as well as helps us to shape our package according to a professional's knowledge, thereby adding a sprinkle of professionalism for our project. All of these information was hosted on an online platform for quick and easy access for students.

1 INTRODUCTION

1.1 Rationale

Over the past few years, the world has seen an increase in the number of cases that involve the loss of Internet privacy and such. For example, a study conducted by Symantec, a global cyber-security company, indicated that cyber-attacks involving malicious software increased by 8,500% from 2014 to 2018, and that in 2018 there were 16.7 victims of identity fraud, an increase from 10.5 million in 2017. These cases have been commonly associated with online platforms such as Facebook and such. A report in May 2013 by the Pew Internet and the American Life Project found 91% of the 12-to-17-year-olds it surveyed post photos of themselves (up from 79% in the last such survey, in 2006) and 24% post videos. Another 91% are happy posting their real name, 60% their relationship status, 82% their birthday, 71% the town where they live and the school they attend, 53% their email address and 20% their mobile number (compared with 2% in 2006). And in the UK at least, where the data trends are broadly similar, there remains "a basic lack of awareness" about "the potential longer-term impact of information leaks", said Andy Phippen, professor of social responsibility in information technology at Plymouth University. As such, we strongly felt that it would be best for teens to learn more about internet privacy, such that they would be able to take the necessary steps to protect themselves online and help others do so as well. Internet privacy is an issue that an increasing number of people are unaware of, thus we decided to embark on this project to educate teens on the issue at hand.

1.2 Objectives

The objectives of Project ProPrivacy were:

- To raise awareness of Internet privacy and its consequences
- To educate teens on steps to protect their privacy online
- To reduce the impacts of privacy breaches and information leaks on students
- To create a beneficial resource package on internet privacy for the reference and

learning of students

1.3 Target Audience

The target audience were 13 to 18 year old students. The reasons we chose this target audience were:

- According to the US Department of Health and Human Services, 71% of teens say they use more than one social media site in 2016, a rise from 39% in 2010.
- Teens are more tech savvy and are more likely to have social media accounts online as compared to the older generations
- They tend to be naive and inexperienced, thus causing the likelihood of falling prey to the numerous dangers the internet may hold to increase and thereby causing them to not be able to protect their personal information effectively.

1.4 Resources

The resources created for this project was an integrated online platform created using Google Sites, comprising of facts, videos, infographics, quizzes and games about internet privacy, consequences of internet privacy, solutions to combating these consequences and an exclusive interview Dr Guo Huaqun, a representative of the Agency for Science, Technology and Research (A*STAR). We also have a social media page on Instagram where we posted various facts on internet privacy to help raise awareness of the dangers of the lack of internet privacy.

Online Platform:

[Project ProPrivacy Website](#)

Project ProPrivacy

Home   Checklist!   Quiz 1!   Internet Privacy ⌄   Exclusive Interview   Quiz 2   References   🔍

Quick Facts!

Consequences?

Solutions!

Case Studies

Infographics!

Solutions!

WHAT ARE SOME OF THE STEPS YOU CAN TAKE TO PROTECT YOURSELVES ONLINE?

Firstly, you can follow the instructions below on steps to take to activate **2-Factor Authentications** for your online accounts.

2-Factor Authentications are a great way to ensure that nobody will be able to log into your accounts without a **code that changes every 30 seconds**!

ⓘ

6:40   45%

Account Setup

✏️

Project ProPrivacy

Home   Checklist!   Quiz 1!   Internet Privacy ⌄   Exclusive Interview   Quiz 2   References   🔍

Are you at risk of succumbing to the dangers of the lack of internet privacy? Find out by testing yourself in the checklist below!

AllTheTests.com   CATEGORIES ▾   CREATE ▾   Search tests and categories   🔍

Knowledge and trivia tests –» Computer / internet quizzes –» Internet

How safe are you online?

★ ★ ★ ★ ☆ ♀ ♂ 10 Questions - Developed by: Zhu Qixuan – Developed on: 2019-07-22 – 93 taken

Answer this honestly and see how much you score!

1/10	Do you use two-step authentications for your online platforms?

○ Maybe sometimes...

I like it

statistic

HTML5 version

ⓘ   ✏️

Project ProPrivacy

Home   Checklist!   Quiz 1!   Internet Privacy ⌄   Exclusive Interview   Quiz 2   References   🔍

Videos

Check out these informative videos if you want to learn more about Internet Privacy!

brief introduction

Watch later   Share

IN 2018 | Singapore's Personal Data Protection Commission processed nearly 3000 data related cases

CREATED USING POWTOON

An Overview of Internet Privacy

How and Why?

Watch later   Share

Hackers can use our private information and commit illegal acts, such as money laundering

CREATED USING POWTOON

How can we prevent the loss of privacy?

Quick Facts!

Videos

Consequences & Case Stu...

Solutions!

Infographics!

Between January 1, 2005 and April 18, 2018 there have been 8,854 recorded cyber breaches against large scale companies and organisations such as Equinox and Under Armor.

Data breaches are not a _____ take for example:

In 2016, 3 billion Yahoo a_____ of the biggest breaches of all t_____

Facebook can track you on over 8.4 million websites!

A study conducted by Symantec, a global cyber-security company, shows that cyber-attacks involving malicious software increased by 8,500% from 2014 to 2017.

96% of hacking groups' primary motive is intelligence gathering on individuals and organisations.

In 2016, Uber reported that hackers stole the information of over 57 million riders and drivers.

In 2017, overall malware variants were up by 88 percent.

In 1995, just 1% of the world had access to the internet.

Now, there are more than 4 billion internet users worldwide, and this figure is skyrocketing.

Instagram Page:

[Project ProPrivacy Instagram](#)
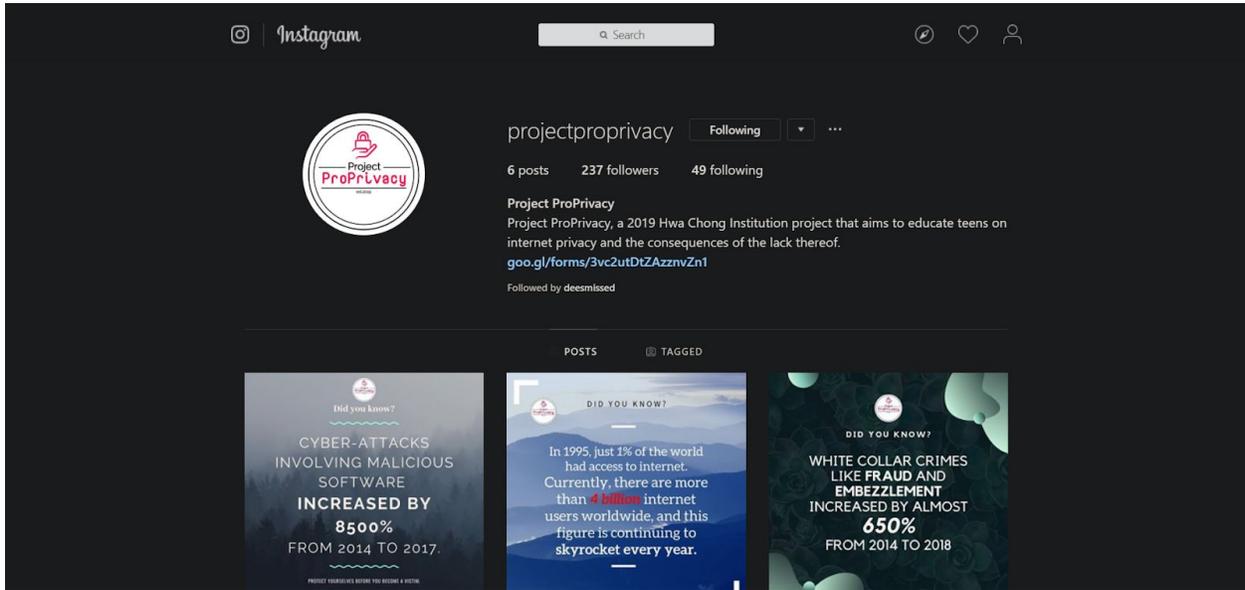
2 REVIEW

In recent years, there has been an exponential increase in the number of teens that utilise the internet and its properties. According to the US Department of Health and Human Services, 71% of teens say they use more than one social media site in 2016, a rise from 39% in 2010. While the number of teens that use the Internet increases with every passing year, the number of people who have knowledge of Internet privacy and what it entails remain stagnant. As such, we thought it upon ourselves to educate our schoolmates on the topic at hand and good Internet privacy practices such that less would fall victim to the consequences the lack of internet privacy can bring.

In order to be divergent from the norm, we included interviews, videos, pictures and infographics that helped to increase the appeal and effectiveness of our resource package.

3 METHODOLOGY

3.1 Needs Analysis

A needs analysis was conducted with a total of 84 13-18 year old students to ascertain the relevance of such a project. Indeed, the 84 students generally indicated that they did not know much about internet privacy and that they did not know of any specific methods that they could utilise to protect themselves online.

3.2 Survey Results

The survey was done by 84 13 to 18 year old students. More than 58% of surveyees were not aware of the fact that their private information were online and stored in data servers, close to 80% of surveyees were not aware of any specific methods they could utilise to protect their online information and around 87% of surveyees showed interest in a resource package that could educate one on data security and protection. This shows a need for our resource package due to the fact that students tend to be vulnerable to these online threats. Our package will aid students in having a greater understanding of online privacy as a whole such that they would know how to protect their privacy in the future.

Are you aware of your private information being online and stored in data servers?

84 responses
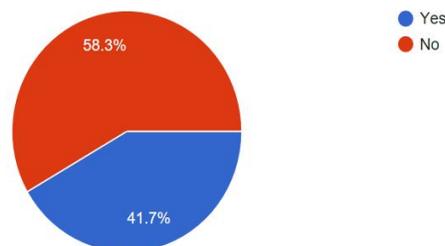
Are you aware of any methods to protect your information online?

84 responses

- ● Yes
- ● No

79.8%

20.2%
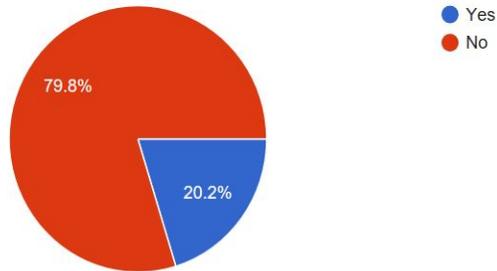
Will you be interested in a resource package that can teach you about data security?

84 responses

- ● Yes
- ● No

86.9%

13.1%
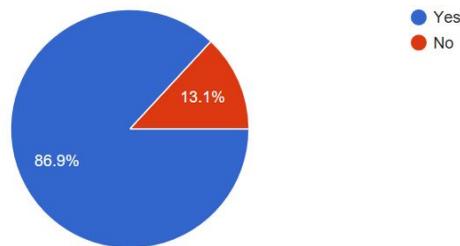
Access the full survey here!

3.3 Development of Resources

We visited the Agency for Science, Technology and Research (A*STAR), which is an organisation that drives mission-oriented research that advances scientific discovery and technological innovation. They consists of many differing branches, one of which that includes a branch that was dedicated to data protection. We interviewed Dr Guo Huaqun, an established member of A*STAR's data protection branch, to gain a better understanding of internet privacy. We compiled the information we gleaned from the interview in our website, as well as recorded the interview and edited it into an exclusive

video for people who patronise our package. The interview gave us a much greater insight into internet privacy and its ins and outs, thereby allowing us to develop our resource with greater intricacy and care. Our project also had an instagram page where its followers were mostly between the age of 13 and 18, where we regularly posted infographics of interesting facts of internet privacy and solutions to combating internet privacy. As for the website, we went through the careful process of extracting useful information from reliable sources on the internet, some of which we compiled into short but intriguing information. We developed our detailed infographics with Canva and Piktochart, created the videos with Powtoon, and edited the interview on Final Cut Pro X. We also created a checklist to help teens access whether they were at risk from the dangers of the lack of internet privacy, as well as incorporated short games to help pique their interests.

3.4 Pilot Test

For our 1st Pilot Test, we had 20 students utilise our resource package. For our 2nd Pilot Test, we had 31 students utilise our package. The students were mostly our classmates from 4P1 and was done within the walls of the classroom. Firstly, we gave them the checklist to check whether they were at risk from suffering from the lack of internet privacy and a test to test their understanding of the topic, before allowing them to browse the website for 20 minutes. Afterwards, they gave us their opinions on the effectiveness of the website. The results were mostly positive, as shown below. For example, 90% of participants felt that they had learnt a new way to protect themselves online, and 90% of participants rated the package 4 and above out of 5. Participant Low Jun Hao also stated that "This project contains a lot of useful knowledge that has impacted the way I utilise the internet." , and participant Elgin Ng also commented that "The interview and videos were especially informative and appealing."
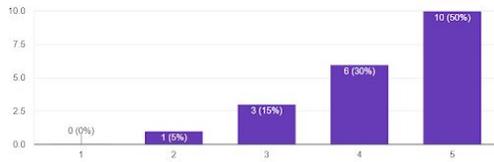
Checklist:

Pilot Test Survey Results:

1) On the scale of 1 to 5, how user-friendly was our online package?
20 responses
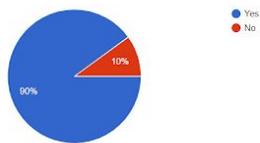

- 1: 0 (0%)
- 2: 1 (5%)
- 3: 3 (15%)
- 4: 6 (30%)
- 5: 10 (50%)

2) On a scale of 1 to 5, how useful was the quick facts page in helping you gain a better understanding of the topic?
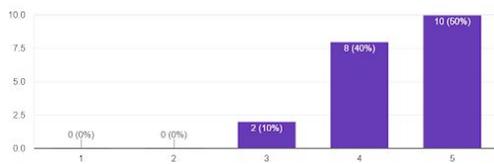20 responses

- 1: 0 (0%)
- 2: 1 (5%)
- 3: 2 (10%)
- 4: 7 (35%)
- 5: 10 (50%)
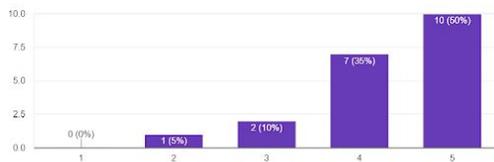
3) Have you learned a new way to protect yourself online?
20 responses

- Yes: 90%
- No: 10%

4) On a scale of 1 to 5, how useful is this package?
20 responses

- 1: 0 (0%)
- 2: 0 (0%)
- 3: 2 (10%)
- 4: 8 (40%)
- 5: 10 (50%)

5) Which part of the package was the most enriching?
20 responses

- Consequences and Solutions: 30%
- Quick facts: 25%
- Infographics: 45%
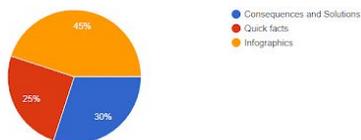
4 OUTCOME & DISCUSSION

Through our pilot test, we received feedback that our infographics were well designed and that their messages were concise. They said that the inclusion of an online platform for easy access was useful and that the content of the website was interesting. However, they said that we could have added more interviews to increase the appeal of the entire package. They also said that the package was limited in usefulness in regards to the measures to take to protect themselves online as there were not enough solutions. In conclusion, even though participants commented that the resource package was limited in value, they said that its objectives were well-grounded and that the package has mostly completed these objectives successfully.

5 CONCLUSION

In conclusion, although we millennials are supposedly tech-savvy and such, our findings show us that fewer people are taking the time to acquire knowledge of internet privacy, which can possibly lead to dangerous consequences for numerous people if they do not take responsibility for their own privacy online.

Project ProPrivacy has been an arduous project to undertake as it required numerous hours of work to design the online platform and infographics, acquire useful information on internet privacy and to collate the information for the reference and learning of our target audience. The whole project has enabled the members to develop numerous skills, some of which include creativity, punctuality and critical thinking. Getting an interview was tough as numerous organisations simply ignored out requests for interviews, but through perseverance and grit, we were able to acquire a priceless interview 2 weeks before the final evaluation. These few months have been challenging but extremely fulfilling for the members.

6 ACKNOWLEDGEMENTS

7 REFERENCES

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