

[ENGLISH] Cyberscapes: Serious Games as a Strategy for Enhancing Filipino Cybersecurity Literacy and Interest

For PC (Windows, Mac, Linux) and Android users.

Greetings!

We are Joshua Lloyd Doros and Christian Dale Encinares, undergraduate researchers from the Computer Security Group of the Department of Computer Science at the University of the Philippines-Diliman.

We thank you for your interest in participating in the play testing of our cybersecurity game, Cyberscapes. In this phase of our game development, we are conducting a study to **evaluate the effectiveness of Cyberscapes in enhancing Filipinos' literacy and interest in cybersecurity**.

As part of the playtesting, we request you to answer a survey which will only take a total of **15 to 20 minutes**. Your time and participation are greatly valued!

* Indicates required question

1. Email *

Data Collection and Privacy

We want to assure you that all information collected during this survey will be treated with the utmost confidentiality and used strictly for research purposes. Your responses will be anonymized and aggregated to ensure that individual participants cannot be identified in any publications or reports resulting from this study. Rest assured that your privacy and data security are of paramount importance to us.

Your participation in this survey is entirely voluntary, and you have the right to withdraw at any time without providing a reason. Should you decide to withdraw, any data you have already submitted will be discarded and not included in the analysis. By proceeding with the survey, you are providing your informed consent for the use of your responses in this research project.

Please note that while we will take all necessary precautions to protect the data you provide, no method of data transmission or storage over the internet can be guaranteed as completely secure. However, we will utilize appropriate measures to safeguard your information.

Relevant Personal Information

2. Name (Last Name, First Name, M.I.) *[Optional]*

3. Contact Number (09XX XXX XXXX) *[Optional]*

4. Age *

5. Gender *

Mark only one oval.

☐ Male

☐ Female

☐ Prefer not to say

☐ Other:

6. Preferred Languages *

Check all that apply.

☐ Filipino

☐ English

☐ Other:

7. Current Occupation *

Mark only one oval.

☐ Student

☐ Other: _____

8. Last School Attended *

Mark only one oval.

☐ UP Diliman

☐ Other: _____

9. Highest Educational Attainment / Current Degree Program *

Mark only one oval.

☐ Less than high school *Skip to question 17*

☐ High school *Skip to question 17*

☐ Associate Program (e.g., AA, AS) *Skip to question 10*

☐ Undergraduate (e.g., BA, BBA, BS) *Skip to question 16*

☐ Graduate (e.g., MA, MS, MEng) *Skip to question 14*

☐ Postgraduate (e.g., PhD, EdD) *Skip to question 11*

Course - A

10. Associate Program (e.g., AA Sports Studies) *

Skip to question 17

Course - D

11. Undergraduate Program (e.g., BS Food Technology) *

12. Graduate Program (e.g., MA Economics) *

13. Postgraduate Program (e.g., PhD Artificial Intelligence) *

Skip to question 17

Course - M

14. Undergraduate Program (e.g., BS Food Technology) *

15. Graduate Program (e.g., MA Economics) *

Skip to question 17

Course - B

16. Undergraduate Program (e.g., BS Food Technology) *

Skip to question 17

Preliminary Survey

This section should be answered **BEFORE** the game is played. This assesses players prior knowledge and interest in cybersecurity.

Cybersecurity Interest

Please answer the following questions as honestly as possible. Select the rating that best represents how you feel about each statement.

17. I consider myself knowledgeable about the field of cybersecurity. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

18. I am interested in learning about cybersecurity. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

19. I actively seek out information about cyber security threats and protection measures. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

20. I keep myself updated on news related to cybersecurity. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

21. Having cybersecurity knowledge is useful for my daily activities. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

22. I implement extra steps to ensure the security of my online accounts. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

23. I actively find ways to make my online presence and activities secure *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

24. I am confident in my ability to protect my personal information online. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

25. I want to pursue a degree related to cybersecurity. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

26. I want to work in the cybersecurity industry. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

Prior Knowledge

Choose what you think is the BEST answer.

27. Which of the following is most likely a scam email? *

Mark only one oval.

- ☐ An email from a known friend or family member, inviting you to a wedding.
- ☐ An email from a reputable online store, offering a limited-time discount on a popular product.
- ☐ An email from the office of the Vice President announcing that you've won a large amount of money from their raffle.

28. If I receive an email from a potential scammer, I will: *

Mark only one oval.

- ☐ Diligently follow the instructions provided.
- ☐ Report it as spam or phishing and immediately delete it.
- ☐ Reply to the email to probe for its legitimacy.

29. When my account has been compromised in a massive data breach or leak: *

Mark only one oval.

- ☐ I will inform my friends and family regarding the data breach.
- ☐ I will immediately change the password of the account that has been involved in the data breach.
- ☐ I will NOT use the account since it has been compromised in a data breach.

30. When I create a password for my account: *

Mark only one oval.

- ☐ I make sure that it contains at least 6 characters: a combination of letters, numbers, and punctuation.
- ☐ I use my name, birthday, or anything that can be easily associated with me so that I can easily remember it.
- ☐ I can ask a cybersecurity expert to create a strong password for me.

31. Which of the following best describes typosquatting? *

Mark only one oval.

- ☐ A fake website with a slightly altered domain name made to resemble popular websites.
- ☐ Hacking into a user's device and monitoring what they type.
- ☐ A form of online advertising that targets users based on their typing habits.

32. Which of the following actions **DOES NOT** mitigate the risks associated with typosquatting? *

Mark only one oval.

- ☐ Clicking on the link to check if the website is safe or not.
- ☐ Double-checking the accuracy of website links before accessing it.
- ☐ Hovering your mouse over a link to verify the true website link.

33. When I receive a one-time pin (OTP) through a text message or an email: *

Mark only one oval.

- ☐ I know that I can share the OTP only with someone identifying as a representative of the company where the OTP came from.
- ☐ I keep the OTP a secret and enter it into sites I trust.
- ☐ I can request someone I trust to use the OTP on my behalf.

34. If I receive a message containing a one-time pin (OTP) without knowing what triggered it to be sent to me: *

Mark only one oval.

- ☐ I will wait for someone to contact me and I will provide the OTP only if necessary.
- ☐ I will enter the OTP to the site indicated in the message.
- ☐ I will ignore the message.

35. When a caller asks for my credit/debit card information (e.g card number, validity, and CVV): *

Mark only one oval.

- ☐ I will give the information only if the caller identifies as an official bank representative.
- ☐ I will ask the caller what the credit card information is for and give it only if necessary.
- ☐ The call is potentially a scam.

36. If an unknown number called to solicit money: *

Mark only one oval.

- ☐ I can provide my credit/debit card information especially if the case is urgent.
- ☐ I can send the money via e-wallet or bank transfer to prevent the risks in handing cash physically.
- ☐ I can turn a deaf ear to the caller and end the call.

37. Which of the following is a good practice to prevent computer viruses? *

Mark only one oval.

- ☐ Opening email attachments from unknown senders.
- ☐ Regularly updating antivirus software and operating systems.
- ☐ Disabling firewalls and security settings to speed up your computer.

38. Which of the following is a possible effect of a computer virus? *

Mark only one oval.

- ☐ Improving your internet connection speed
- ☐ Corrupting important files and data
- ☐ Experiencing symptoms such as coughing and sneezing

39. What is a popup advertisement? *

Mark only one oval.

- ☐ A form of online advertising that appears as a new browser window or tab, often without user interaction.
- ☐ A method of advertising that involves placing physical signs or banners in public spaces.
- ☐ A type of advertising that utilizes targeted phone calls to promote products or services.

40. What is the recommended action when encountering a popup advertisement? *

Mark only one oval.

- ☐ Click on the advertisement to claim a special offer or prize.
- ☐ Install the suggested software or application from the popup.
- ☐ Ignore or close the popup without interacting and continue browsing.

41. What is the role of CAPTCHAs? *

Mark only one oval.

- ☐ CAPTCHAs become a burden for website users and should be removed to improve user experience.
- ☐ CAPTCHAs are minigames to entertain users entering the site.
- ☐ CAPTCHAs prevent automated bots from accessing the sites.

42. Which is NOT a form of CAPTCHA?

Mark only one oval.

- ☐ Username and password verification
- ☐ Recognizing a warped or distorted text
- ☐ Identifying a certain object from a set of images

Play the game!

You may now play the game for at least **5 minutes**. The link below leads you to a page where Cyberscapes can be played in your **PC** browser.

<https://simplejoshua.itch.io/cyberscapes>

For **Android** users, an APK installation file (*Cyberscapes.apk*) is available for download from the page.

PC users can also choose to download the game files located inside *Cyberscapes.zip* from the page.

A screenshot of the download section in the game page

Download

Download

Cyberscapes.zip (Windows) 69 MB

Download

CyberScapes.apk (Android) 67 MB

Install instructions

Windows

After downloading, simply click on "Cyberscapes.exe" to run the game.

Pagkatapos i-download, i-click lamang ang "Cyberscapes.exe" upang simulan ang laro.

Android

After downloading, click on "Cyberscapes.apk" to install. Your device might not be able to recognize the app developer, kindly proceed to install. After the installation, launch the CyberScapes app.

Post Survey

This section should be answered **AFTER** the game is played. This assesses players' knowledge and interest in cybersecurity after the game is played. Please **refrain from altering your responses in the previous section**.

Cybersecurity Interest

43. I consider myself knowledgeable about the field of cybersecurity. *

Mark only one oval.

Disagree

1

☐

2

☐

3

☐

4

☐

5

☐

Agree

44. I am interested in learning about cybersecurity. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

45. I will actively seek out information about cyber security threats and protection measures. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

46. I plan to keep myself updated on the news related to cybersecurity. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

48. I will implement extra steps to ensure the security of my online accounts. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

47. Having cybersecurity knowledge is useful for my daily activities. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

49. I will actively find ways to make my online presence and activities secure. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

50. I am confident in my ability to protect my personal information online. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

51. I want to pursue a degree related to cybersecurity. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

52. I want to work in the cybersecurity industry. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

Knowledge Gained

Choose what you think is the BEST answer.

53. Which of the following is most likely a scam email? *

Mark only one oval.

- ☐ An email from a known friend or family member, requesting urgent financial assistance.
- ☐ An email from a reputable online store, offering a limited-time discount on a popular product.
- ☐ An email from the office of the Vice President announcing that you've won a large amount of money from their raffle.

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- ☐ Diligently follow the instructions provided.
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- ☐ I use my name, birthday, or anything that can be easily associated with me so that I can easily remember it.
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- ☐ Disabling firewalls and security settings to speed up your computer.

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Mark only one oval.

- ☐ Improving your internet connection speed
- ☐ Corrupting important files and data
- ☐ Experiencing symptoms such as coughing and sneezing

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Mark only one oval.

- ☐ A form of online advertising that appears as a new browser window or tab, often without user interaction.
- ☐ A method of sudden advertising that involves placing physical signs or banners in public spaces.
- ☐ A type of advertising that utilizes targeted phone calls to promote products or services.

66. What is the recommended action when encountering a popup advertisement? *

Mark only one oval.

- ☐ Click on the advertisement to claim a special offer or prize.
- ☐ Install the suggested software or application from the popup.
- ☐ Ignore or close the popup without interacting and continue browsing.

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Mark only one oval.

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- ☐ CAPTCHAs are minigames to entertain users entering the site.
- ☐ CAPTCHAs prevent automated bots from accessing the sites.

68. Which is NOT a form of CAPTCHA?

Mark only one oval.

- ☐ Username and password verification
- ☐ Recognizing a warped or distorted text
- ☐ Identifying a certain object from a set of images

Game Review

This section is your opportunity to share your experiences, suggestions, and any issues you encountered while playing the game. Your feedback is crucial in helping us improve and create a better gaming experience for all the players.

UI & Graphics

69. The design is intuitive. I can understand how the game works without asking help from others. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

70. The game menus are easy to navigate. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

71. The graphics used in the game are pleasing to the eye. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

Responsiveness and Ease of Gameplay.

72. The game variations have the right amount of difficulty. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

73. Game controls are smooth and responsive. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

74. I didn't experience glitches or bugs while playing the game. *

Mark only one oval.

Disagree

1 ☐

2 ☐

3 ☐

4 ☐

5 ☐

Agree

75. What bugs have you experienced while playing the game (if any)?

Sense of Achievement

76. I feel accomplished when I successfully complete the games. *

Mark only one oval.

Disagree

1

2

3

4

5

Agree

77. I feel a sense of joy and satisfaction whenever I set a new high score. *

Mark only one oval.

Disagree

1

2

3

4

5

Agree

Replayability

78. I am interested in playing the game again in the future. *

Mark only one oval.

Disagree

Agree

79. There are enough variations to keep the game interesting. *

Mark only one oval.

Disagree

Agree

80. The game does NOT feel dull and repetitive. *

Mark only one oval.

Disagree

Agree

81. Other Comments/Suggestions

End of Survey

Thank you very much for taking the time to answer our survey and playtest our game. Your feedback is highly valuable to us and will assist us in improving our project in order to develop more effective strategies in raising cybersecurity awareness and literacy for the general Filipino population.

If you have any further questions or inquiries, please feel free to reach out to us via our email:

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