

CyberDungeon - An Educational Video Game

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Motivation

Young adults are uneducated and unaware of the risks against their privacy and importance of their personal information in today's digital age. Technology is making its way into every aspect of our lives, but the average person could not tell you what personal information is being collected, how its being collected, or who has access to it. They are also unaware of how to protect themselves when they are online.

We seek to create an enjoyable way for the average person to increase their knowledge of online privacy so they do not get taken advantage of by corporations or individuals trying to take their data without consent.

Our Solution

Create an educational video game that teaches users about online privacy and how to protect their personal information. The game will be quiz-based and have the user search for information to be able to pass the quizzes throughout the levels.

We created a website that is accessible by everyone to be able to download the game to their own computer.

The target audience will be young adults aged 18-25. The game style is similar to Pokemon which was popular when this age group was younger and hopefully encourages them to play the game.

Design Process and Final Product

Initial Design

Educational Aspect

Needed to make sure the video game prioritized education. We did this by making quizzes an essential part of winning the game.

Entertaining Aspect

In order to get users to want to play the game it was important that they enjoyed using it. We did this by employing multiple aspects of other popular games like fighting other characters and collecting items from chests.



Surveying Users

Surveyed users about their knowledge of different topics and whether or not they would be interested in an educational video game to help them learn more.



Background Research

We collected information from several sources about online privacy for the users to learn. We then sorted the information into subtopics within online privacy. Topics include General Terms, Phishing & Scams, Malware, Social Media Safety, Data Mining, and Dark Patterns

Final Design



Website for users to be able to download the game to their computer

When they start the game, instructions will show them the rules and how the game works



Six Different levels with a lobby that allows the users to repeat levels and do them in any order. Maps shown are level 1, level 2, and the lobby.



Each level contains multiple chests with information to learn and items to help win the game.



Several smaller monsters found throughout each level that give two true/false questions that are simple and fast to answer.



One large monster they must defeat to finish a level that gives ten multiple choice questions.



Once they finish all the levels they will escape the dungeon and win the game.

User Feedback

Critique 1 - "Make the instructions more concise and easy to understand."

Response - We went back and improved this section because its important the user knows how the game works to learn the information.

Critique 2 - The user should be able to reinforce learning by being able to return to previous levels.

Response - We changed the game from a linear path to being able to repeat levels and do them in any order by creating a lobby the user returns to at the end of each level.

Future Improvements

First Improvement: Change the website so that instead of the user downloading a zip file, they can directly play the game in the browser window. This is because most people would not download random zip files from the internet to their computer.

Second Improvement: Make it so that a professor/teacher could change the questions in the game to their own questions for topics they choose. This way the game could be used for a variety of topics outside of the ones we chose.

Acknowledgements

Thank you to all the people who responded to the survey, tested the game once it was close to completion, and Dr. Yaxing Yao for guidance throughout the stages of the project.

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We seek to create an enjoyable way for the average person to increase their knowledge of online privacy so they do not get taken advantage of by corporations or individuals trying to take their data without consent.

Our Solution

Create an educational video game that teaches users about online privacy and how to protect their personal information. The game will be available to download through a website. It will be quiz-based and have the user learn information as they move throughout the levels.

The target audience will be young adults aged 18-25. The game style is similar to Pokemon which was popular when this age group was younger and hopefully this encourages them to play the game.

Design Process and Final Product

Initial Design

Educational Aspect: We needed to make sure the video game prioritized education by making quizzes an essential part of winning the game.

Entertainment Aspect:

In order to get users to play the game it is important that they enjoy using it. We employed aspects of other games like fighting other characters and opening chests to make it fun to play.



Final Design



Website for users to download the video game to their computer

When they start the game, instructions will show them how to play



Six Different levels with a lobby that allows the users to repeat levels and do them in any order. Maps shown: Levels 1, 2 and Lobby



Each level contains multiple chests with information to learn and other items.



Several smaller monsters in each level that give two true/false questions.



Then there is one large monster they must defeat to finish a level with ten multiple choice questions.

Once they finish all the levels they will escape the dungeon and win the game.

Surveying Users

Surveyed users about their knowledge of different privacy topics and whether or not they would play an educational video game to help them learn more.



Background Research

We collected information from several sources about online privacy, then sorted the information into subtopics within online privacy. Topics include General Terms, Phishing & Scams, Malware, Social Media Safety, Data Mining, and Dark Patterns

User Feedback

Critique 1 - "Make the instructions more concise and easy to understand."

Response - We went back and improved this section because its important the user knows how the game works to learn the information.

Critique 2 - The user should be able to reinforce learning by being able to return to previous levels.

Response - Created a lobby that allows them to repeat levels and do them in any order.

Future Improvements

First Improvement: Change the website so that instead of the user downloading a zip file, they can directly play the game in the browser window.

Second Improvement: Make it so that a professor/teacher could change the questions in the game to their own questions for topics they choose.

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Initial Design

Educational Aspect: We needed to make sure the video game prioritized education by making quizzes an essential part of winning the game.

Entertainment Aspect: In order to get users to play the game it is important that they enjoy using it. We employed aspects of other games like fighting other characters and opening chests to make it fun to play.



Surveying Users

Surveys showed a majority of users had little privacy knowledge and lacked confidence in keeping their information and personal data safe online.



Background Research

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Final Design

Website for users to download the video game to their computer



When they start the game, instructions will show them how to play



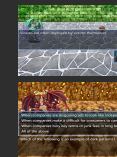
Five different levels with a lobby that allows the users to repeat levels and do them in any order. Maps shown: Levels 1, 2, 3, the Lobby



Each level contains multiple chests with information to learn and other items.



Several smaller monsters in each level that give two questions. Then one large monster they must defeat to finish a level with ten multiple choice questions.



Once they finish all the levels they will escape the dungeon and win the game.

User Feedback

Critiques - Users said we should make the how to play section better, and they should be able to reinforce learning by being able to return to previous levels.

Response - We improved the How to Play slides and we also added a lobby that allows players to go back to previous levels.

Feedback - General consensus said the overall game was good in both the game play and the learning aspect as well.

Future Improvements

First Improvement: Change the website so that instead of the user downloading a zip file, they can directly play the game in the browser window.

Second Improvement: Make it so that a professor/teacher could change the questions in the game to their own questions for topics they choose.

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