HACKED 1.0

Overview

You think you're safe online?? But social media is a maze of danger!! Hacked 1.0 is a First-Person Shooter Game in a dark maze representing social media with both timed levels and freeplay mode.

Inspiration

Worldwide connectivity, great advertisement opportunities, real-time information sharing: These are a few advantages social media gives us. Despite the positives, social media is certainly not safe. The inspiration for this game stemmed from the social media addiction all around us.

 "64% of traffic accidents in USA (and 80% in Qatar) caused by using social media channels on mobile phones while driving"

"75% of convicted burglars admit they use social media to track victim's location and target potential properties"

These news headlines may shock us, but they show how social media is controlling society and exposing us to dangers. This game can alert users to the risks of social media today.

THE FOUR ELEMENTS OF GAME DESIGN

1. STORY

Theme: Representing Social Media as a dangerous yet addictive maze of dangers, a relevant and pertinent social issue in today's world. Social media addiction is common in all age groups today and this game can educate society about the multiple dangers that exist online.

Game Genre: FPS Maze Adventure

Backstory: "Hacked 1.0" revolves around any social media addict who thinks they are safe online. In the game, the player is trapped in a maze of the social media. In this addictive maze, the player is threatened by enemies like spams, hacking and data privacy concerns! He must try to save himself by finding his way through the maze, collecting coins that increase his health while killing the enemy cubes before time runs out.

2. TECHNOLOGY

TOOLS USED

	Unity has been used to make this 3D FPS maze game.
	Adobe Photoshop: To create and edit the background of scenes.
	Jamendo Music has been used to source free thrilling music
	Audacity: To loop, crop and modify background music for the game.
	Blender To create 3D models of collectible coins & enemy cubes.
Unity Teams & Unity Asset Store For collaborating and sourcing free assets.	

SCRIPTS: **All scripts are written in C#.**

- **"EnemyAI" Script:** Makes Enemy Cube follow Player (capsule) in a straight line. It cannot detect maze obstacles.
- **"GunShot" Script:** Instantiates and creates the shot spawns
- **"Shot" Script:** Makes the shot move with a specific velocity
- **"Movement" Script:** Controls the movement of the Player via the 'W,A,S,D' keys
- **"Move" Script:** Controls movement of the gun using Arrow keys
- **"minimap" Script:** Follows Player's movement in the maze and updates the minimap at every instance using a Secondary camera.
- **"PlayerHealth" Script:** Controls Player's Health. Also detects collision of shots with coin and destroys the coin upon collision. Player Health is a static variable accessible from all scripts.
- **"Timer" Script:** Controls the timer of Levels in the game, which is displayed as a circle on the bottom left of the main screen. Fills the timer image and ensuring that when time ends and Player Health is greater than 30, we proceed to the next level, else Game Over scene is shown.
- **"main_menu" Script:** Controls the game flow by loading scenes using SceneManager
- **"PosCoinFB" and "NegCoinFB" Script:** Contains the different GUI messages that pop up in Level 1 (Facebook level) when selecting either a 'like' coin or a 'dislike' coin respectively.
- **"PosCoin1" and "NegCoin1" Script:** Contains the different GUI messages that pop up in Level 2 (Snapchat Level) when selecting a 'like' coin or a 'dislike' coin respectively.
- **"DestroyEnemy" Script:** If the gunshots collide with the Enemy object, the PlayerHealth is updated, the enemy is destroyed and messages pop up on the screen,simultaneously.

PREFABS

- **Wall, Floor & Pillar Prefabs :** To build the maze with Illuminated textures (using Emissions)

- **Capsule Player Prefab**: Capsule, invisible to Player during the FPS game, with a Gun & Torch.

- **Gun Prefab:** Added to allow the Player to shoot at enemy cubes and collectible coins.
- **Torch Prefab:** To guide the Player in the dark maze
- **Coin Prefab:** Collectibles randomly generated in maze.
- **Enemy Prefab:** 3D cube which can navigate in a straight

line between itself and Player and reduce Player's Health on Collision.

MAZE

- **Features**: - New maze generated for every instance of the game
  - Coin Collectibles and Enemy Cubes appear at random positions for every instance of the game
  -Customizable size of the maze : 10 x 10 for initial levels and 20 x 20 for later levels.
- **Relevance**: The maze denotes the maze of social media maze, full of dangers like privacy concerns, spam etc.
- **Maze Generator**: Free asset obtained from Unity Asset Store and modified. Creates complex non-cycled maze with different algorithms: Pure recursive, Recursive division, Tree algorithms
- **Modifications:**
  - Used Recursive Tree algorithm to generate the maze only.
  - Used illuminated textures of rainbow code for maze walls to create an atmosphere of a digital social media world.
  - Duplicated code to fit in 3 goal prefabs:
    - 2 types of Collectible Coins (Negative & Positive Coins)
    - Enemy cube pertinent to that level (Facebook/ Snapchat)

MINIMAP

To aid players in orienting themselves within the maze world

Uses a secondary camera to follow the Player's traversal of the maze.
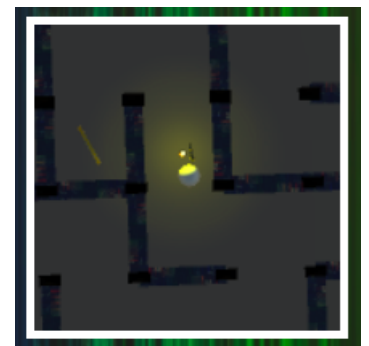
3. MECHANICS:

MODES: The game offers the player 2 modes: Levels Mode and FreePlay Mode.

LEVELS MODE	FREE PLAY MODE

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Objective: Surviving a timed level with health bar intact. Each level is based on one social media platform. More levels to be developed and added based on Instagram, Twitter, Pinterest in the future. Level 1: Facebook Level 2 : Snapchat	**Objective**: Coin Collection, Health maximization, Enemy elimination, Maze exploration. Player traverses the maze without a timer thus allowing for maximum player experience. Maze size larger: 20 x 20 in order to allow for extensive maze exploration.

CONTROLS

Controls Scene in Main Menu to familiarise the Player with the game controls.
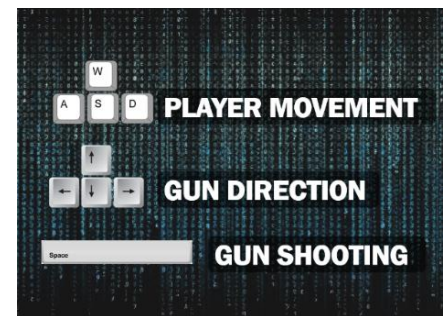
GAME RULES : HOW TO PLAY

● Use Gun to shoot at mystery coins to increase Player Health.
● If the coin is a dislike then Player Health decreases by 40 points
● If the coin is a like, Player Health increases by 10 points.
● The Enemy Cubes constantly approach the player. When the Enemy is nearby, warning messages pop up. When the Enemy collides with the player, the Player health decreases successively by 4. Upon killing the Enemy, 10 points get added to Health.
● In Levels Mode,the timer is 100 seconds long. If time runs out with Health below 30 points then the Player proceeds to the next level.
● In Freeplay Mode there is no timer, and the player can traverse the maze till the Player Health becomes 0.

4. <u>AESTHETICS</u>

● **Maze appearance:**

Illuminated patterns of rainbow coloured code on the dark walls of the maze to depict the digital maze of social media.

● **Introduction to each level**

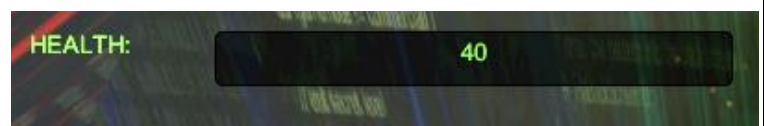Intermediate scenes before each level to introduce it to Player.

● **Timer**

Radial red circle at the bottom left of the screen which shows the decreasing time in seconds as Level proceeds.
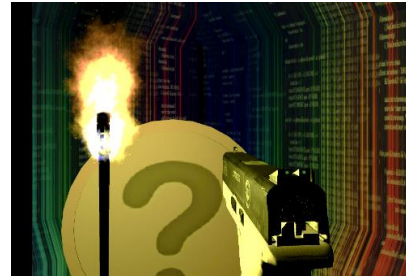
● **Health bar**

Horizontal, darkened bar on top of the screen showing Player's remaining Health. Updates on enemy collision or collection of coins.

● **Coin Prefabs**

- Animation added to allow the coin to hover and spin.
- Upon shooting at the coin, information displayed in a GUI message indicating if it was negative or positive, along with an increased or decreased Health Bar.

● **Enemy Cubes**

- Textures of coloured code covering the cubes with logos of social media platforms of the pertinent game level.
- Enemy approaches, Player's Health starts falling.
- When Enemy approaches Player, warning text shows.
- Enemy Cubes approach in a menacing straight line motion.
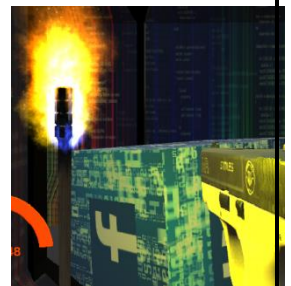
● **Menu**

Menu scene with a rolling background showing the modes and controls.

LEVELS MODE
FREEPLAY MODE
CONTROLS
QUIT

● **Dialogue system**

A simple dialogue system with a rolling background
to familiarise and educate players with the theme of the game

Social Media Addict

In this addictive maze, you are threatened by enemies like spams, hacking and data privacy concerns!

Continue

Social Media Addict

Good luck surviving the maze of social media...

Continue

Social Media Addict

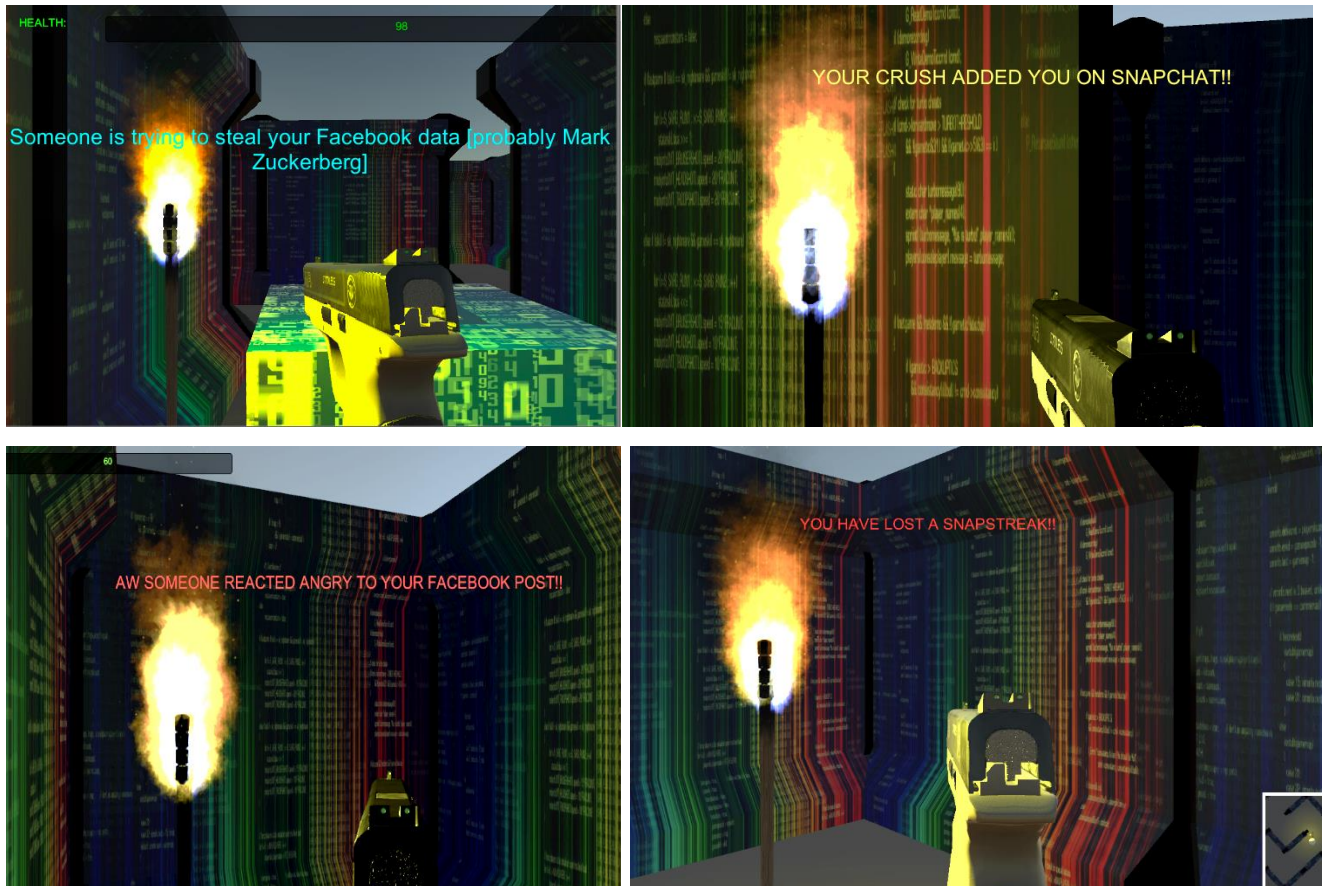You think you are safe online?????

Continue

- **Rolling background**

Present in the background of the Menu scene and the Dialogue scene.

- **Humour**
  - Humour was implemented in the messages shown upon positive or negative coin collection, enemy approaching the Player and enemy elimination.

  - Collection of positive coins was accompanied with a cheerful, upbeat sound clip & negative coins had a pessimistic sound clip.

- **Music**

  2 songs have been used throughout the whole game.

  - Modified rendition of the Harry Potter theme which plays only when the game is being played.

  - A background score downloaded from Jamendo (freely sourced music), cropped and looped using Audacity, played during the Menu, Dialogue Scene and Introductory scenes.

- **GUI**

  -GUI functions implemented and enhanced.

  -GUI Style was created to customise the Font Size, Word Wrapping, Font Colour
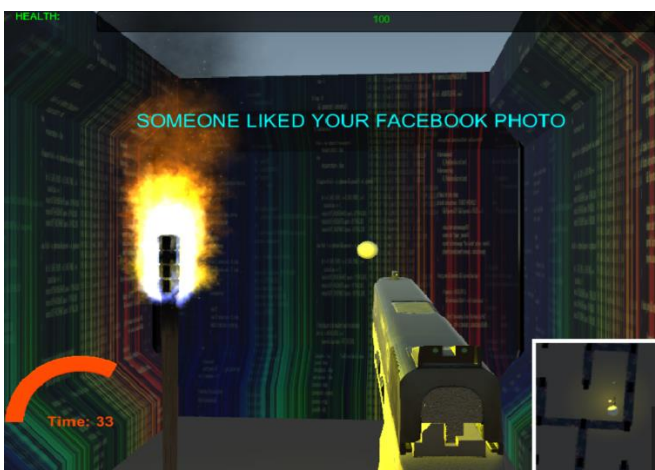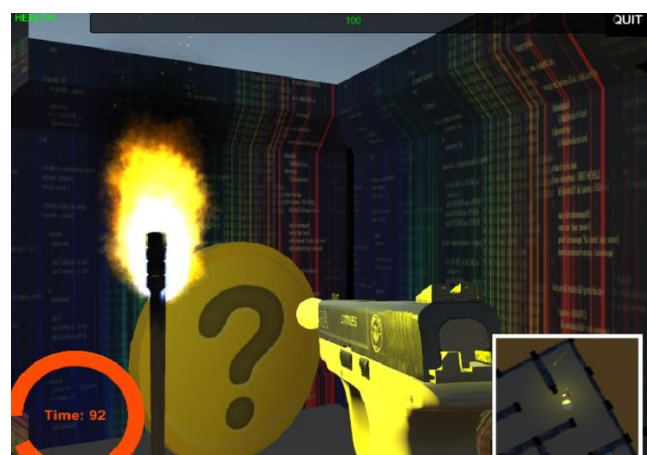
- **Gun**

  The player carries a Gun, which is the only thing visible while playing the game. It is used to shoot at enemy cubes and to collect coins.

- **Torch**

  The torch moves alongside with the Player and provides some illumination and aesthetic effect to the scene, acting as a source of guidance throughout the dark maze.

KEY SCENES: GAME PLAY

PLAY TESTING

Tested the game at multiple stages of Game Development to fully understand the game elements.

- Game Developers, Expert Gamers, Tissue Testers, Casual gamers, Teaching Assistants.
- From different backgrounds, Nationalities, Faculties, age groups, universities.
- Comments and advice received used to improve the game.

  -Added explanations before each Level   -Altered speeds to optimise comfort

  -Added MiniMap to ease navigation for Players   -Added FreePlay Mode

FREE ASSETS

Sourced from the Unity Asset Store:

- Gun Prefab : For a realistic weapon.
- Torch Prefab : A realistic flaming torch to guide the Player in the maze.
- MazeGenerator : Converted a simple ball roller, maze generator to fit the game