University of the Cordilleras

College of Information Technology and Computer Science

In Information Technology

CC7

Human Computer Interaction

Ophir

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1. Introduction

Augmented Reality game is emerging nowadays, it is the game that direct personally to each individual user, it is not just a simple single click then it is done it is the matter of interaction and affection of the game itself. But because of rapid development of the technology. People nowadays are always on their phone, getting lazier, and relying on technology for their daily work and losing physical activities and socialization. So the game developers decided to make a game that will make mobile phone users to become physically active and to socialize by playing the mobile game. The Ophir game is easily accessible and inexpensive as long as you have internet connection. Ophir needs the importance of discipline to each user. This game is for the people who loves action, zombies, hunting and looting games and especially first person shooting games. Ophir is an exciting AR action game. Experience the adrenaline, tactic and strategies of gaming in your everyday life. This game brings a battleground into your backyard. Fight against waves of zombies that tries to kill the player and earn experience points and loots to improve the player’s character. Challenge and hunt other players to earn bigger rewards. Roam and look for your own weapons, items, ammo, armor and more. Go to inventory and forge every items you have and make your own strongest weapon and armor and defeat your enemies with ease. But be careful, the stronger you are, the stronger the zombies may become.

Team up and make your own squad, make your own clan, fight with other teams, get bigger rewards and climb up and make your team on the wall of fame. Don’t let anyone kill you. Because you may lose your most valuable items and anyone can loot it from you. However, not all smartphones are AR ready, because AR requires specific hardware that is used to stabilize objects in the real world. So we made a special gear that is mounted in your smartphone to have accurate and smoother stabilizing of objects in the real world. We call it, blinker. It is a depth sensing infrared ray determining the distance to nearby object. It measures the amount of time that the laser bounce back to the blinker and helps the software to determine the objects even in low light. It also combine with the motion sensor camera of the blinker to identify relative position. GPS or Global Positioning System is also used to locate nearby player during the team match. This systems are inspired by the game father.io and their very own AR laser tag called “The Inceptor”.

1. Project design

The game has the principle of affordances because it gives strong clues for possible usage and the game gives instruction and precaution on how to play the game, physical constraint are also applied because we are using “blinker” or laser tagging device so that make any phone compatible for our game, because not all mobile phone have gyroscope that makes AR possible for mobile devices. The principle of Semantics constraints are also applied because it rely meaning of a situation to control actions, especially during gameplay, if they saw enemies, they will know what to do, either run or fight with the enemies. Logical constraints is also used because if the users know that there is enemy, they know that they are in a fight or the game just started. We also applied Conceptual model because the game allow the user to understand the system by giving them instructions and daily missions, they also know to predict the effect, example is when the user took too much damage, they can predict either they will die or they will know when to use health kits. Mappings are also essential to our system because we are using global positioning system or GPS to locate the user and especially some missions require users to go to a specific place to finish a mission. Visibility are also applied in our game specifically in our GUI or graphic user interface, it tells the user what actions they can perform. Feedback are also present in the game because every hit of a buttons gives a certain action in the game, when the user are being hit by the other players, their mobile phones will vibrate to let the user know that they are taking damage. It also have different sounds on different weapons, the bigger the weapon, the stronger the sound effects.

The game is interactive because it lets the user pick their character, forge items, upgrade their weapons and character, team up with other players, and fight with other users.

1. Conclusion/recommendation
2. References

1. Technology Makes Us Lazy. (2016, Mar 30). Retrieved from <https://studymoose.com/technology-makes-us-lazy-essay>

2. What is Augmented Reality? (May 31, 2018) By [Jesse Emspak, Live Science Contributor](https://www.livescience.com/authors/?name=Jesse%20Emspak) Retrieved from <https://www.livescience.com/34843-augmented-reality.html>

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