

THE COST OF GREED

DES350 Creative Coding

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PROJECT STATEMENT

As human lives are advancing constantly, the basic needs of human beings are increasing tremendously as well. The human intrusion needs have altered the natural environment and arouses problems such as pollution, climate change and global warming. In order to dispose of these problems, Green Technology is introduced to restore the Earth back to a once healthy state. One of, if not, the biggest culprit of global warming is corporate power and greed centered on immediate profits and little regard for the impacts business decisions have on the environment. Corporations have translated their economic power into political power, lobbying for policies that give them free rein to despoil the environment and choosing to ignore the impact of their actions. The Cost of Greed utilizes virtual reality to immerse the player in two different scenarios that depict a world affected directly by the player's decisions and what could have been done differently to alter the outcome.

INTERACTION

The player acts as the head of a car manufacturing company and is presented with two options as to how they want their new vehicles to be produced as well as how those vehicles are powered. The choice between using non-renewable or renewables energy is given, and the player is then confronted with messages of possible internal thoughts they may be considering depending on which source of energy they may be approaching. Once the decision is made, the player will get to experience for themselves the process of manufacturing new vehicles through their chosen source of energy, as well as visually experience how the environment surrounding them has been impacted by their decision. Follow on-screen prompts to interact with the environment and physically begin the production process one step at a time all while enduring constant impactful reminders for your actions. Once it is all said and done, the player is given another chance to see how things could have played out differently if they had chosen another solution. Will you do what's right for the Earth and its inhabitants, or will you let the avarice of corporations decide its fate?

Non-Renewable Scene:

- As the player approaches the red vehicle he/she is prompted to press "O" button on the controller to start the journey towards a non-renewable environment. Once there, the player must follow on-screen prompts to interact with the environment.

- The first interaction is set by the player's approximation distance to the crack followed by pressing the "x" button. After this first interaction, the environment starts to change.
- Next the user is prompted to manufacture fuel-based cars by pointing to the car factories and pressing "L1" button on the controller.
- As the user manufactures more cars, the environment keeps changing. The ground gets a texture that tries to depict how oil extraction can cause a damage to it. People's homes start to disappear as the oil extraction and fuel-based car manufacturing process takes place in this environment.
- Finally, the user is prompted to go back to the intro scene by pressing first "L2" and then "X" button on the controller.

Renewable Scene:

- As the player approaches the green vehicle, he/she is prompted to press "X" button on the controller to start the journey towards a clean renewable environment. Once there, the player must follow on-screen prompts to interact with the environment.
- The first interaction is set and triggered by the user's approximation to the closest power generator on the right side. The power generator is activated and clean energy will start spawning after some seconds have elapsed.
- Next, the player is prompted to interact with the second power generator by pointing to it and pressing "L1" button on the controller. At this point, clean energy is being spawned by both power generators.
- Next, the player is prompted to manufacture EVs by pointing and pressing "L1" on both electric vehicle manufacturers. EVs start spawning from each car factory at this point in both directions.
- Given the need that EVs need to be recharged the player is prompted to get closer to our charge stations.
- The player's approximation distance triggers the charge stations to spawn more EVs as a reference that cars are coming and leaving after being recharged.
- The final interaction requires the player to get closer to a wind turbine on the left side to point at it and press "L1" to start the wind turbine. At this point, energy is being spawned in the direction of the homes that have been spawning as a result of this clean environment.
- Finally, the user is prompted to go back to the intro scene by pressing first "L2" and then "X" button on the controller.

ACKNOWLEDGEMENT

The Cost Of Greed was developed on Unity for CAVE2, a virtual reality visualization environment at the University of Illinois at Chicago.

A huge thanks to our professors, Daria, Jeff, and Andy for helping the team understand the fundamentals of Unity and how to create an immersive 3D experience within virtual reality as well as for allowing us to use CAVE2 to see our project come to life in a unique way.

COLLABORATION

Throughout the semester, we would meet together on discord to discuss future actions each member would have to focus on and prepare for the next class. In between calls, we would continue to communicate over text within discord for smaller occasions such as check-ins or questions. For sharing files we would use Github desktop to push or pull versions of our project to one another and for smaller file-sharing, we would use google drive. Geo Aguilar set a direction for the project through early sketches, models, and materials to outline different aspects of the final project. Omar Butt finalized aesthetics, implemented sound, and created the 3D models/text in Maya. Edison Larco worked on the coding and scripting within Unity including the interactions and implementation of CAVE2 within the project.



Opening scene has the player in a nearly empty white void to create a clear objective for how they may want to begin the VR experience.



Non-renewable route depicts a decaying world at the mercy of corporate greed and fueled by fossil fuels.



Renewable route shows how the decrease of CO2 emissions can lead to a brighter cleaner outcome.