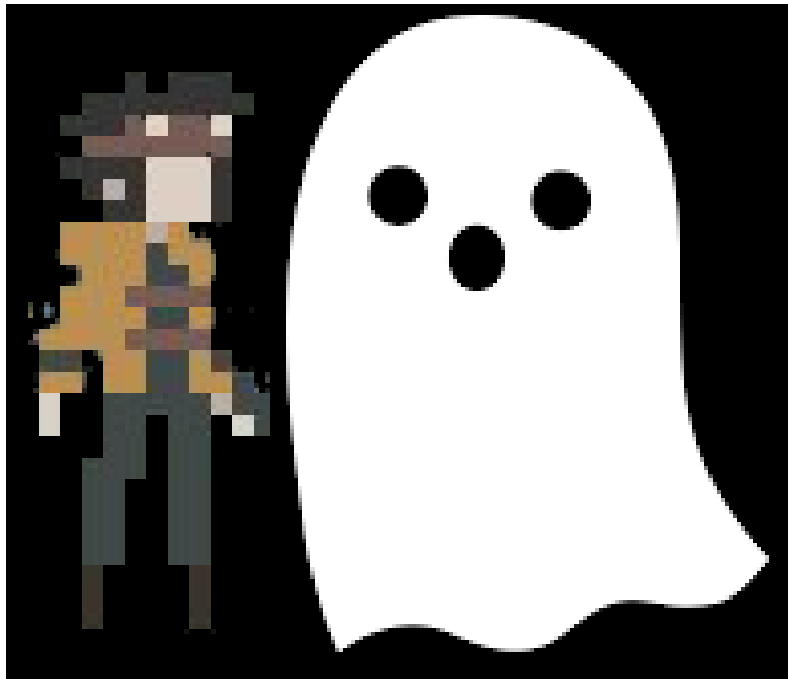# COOP - GHOST

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Game Design

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Vision Statement

Game logline

Co-op Ghost is a game where one player leads another player through a puzzle house, but cannot communicate, either verbally or visually with the other player.

Gameplay synopsis

Gameplay consists of two players, preferably seperated, where one player is the leader and has a description of the objective, this player will be referred to as 'the ghost'. The other player is the follower and has to try to figure out what the first player wants him/her to do throughout the game, this player will be referred to as 'the human'. The reason for the separation of the players is because this game is centered on the idea of having no communication, either verbal or visual communication, allowed outside of the game itself. This is to try and encourage players to figure out how to communicate within the context of the game.

The game itself takes place within a 1-story house, where the house itself is sort of a character of the game. That being said, the objects found throughout the ghost's house portray the ghost's story of how he lived his life and possibly even how he met his end. The human will either pick up and be interested by this story, or will just try to reach the goal objective as quickly as possible without really taking in the scenery around him, and becoming familiar with the ghost's story. The goal is to create a level-design that will both be on the small end of the scale and still be captivating.

Similar Game Critiqued

A similar game to COOP-Ghost is the steam game [Gone Home](#). The game itself has a huge emphasis of exploration, and as such there is really no clear way to finish the game upon first starting the game. There are panels that are interactable and can be moved away from the wall to reveal secret panels, but they seem to be very difficult to find.The text on the journal dates are difficult to read within the journal menu. This game is a one and done style game, and as such there is no legitimate replayability aspect to the game. It seemed like the game was just for the story and that the gameplay mechanics were afterthoughts.

Some things that the game differs from ours is that it is a pure single player game, whereas our game is multiplayer with an emphasis on figuring out how to communicate.

One of the best features of the game is the random dialog of the main character talking to herself. Without this the main ambient noise would be rain, lightning, and object interactions. The game itself has the feeling of having jump-scares, but they never really show up. The amount of detail that was built into the house made the game difficult, as there were so many items to look at and explore. The thing I liked best about the game is that when you interact with new rooms and hidden compartments, they are added to the map.

Audience, Platform

Target audience

Target audience will be for teens and up. The main idea as to why we would limit the game from pre-teens would because we are intending on giving the game a horror style/theme in the future, and would not want to scare younger children with jumpscares and other horror style themes, as that can negatively impact their mental growth. The other reason as to why we intend on building this for teens and up is because the game depends on the ability to discern details and to be aware of the current surroundings.

Platform and tools

The game will run on the Unity platform. The idea behind using unity was the fact that unity already has built in physics, colliders and even layers so that the players can be manipulated in a way that certain players can walk through walls and other players cannot. Some other things that Unity has is pre-built physics, along with Audio and the ability to add reactions and responses that can add weight to the story.

Unity also offers its own asset store, which we intend to use to decorate some of the house, to minimize the amount of texture creation we have to do. Networking has a very similar reason to the asset store, as to why we choose to utilize the Unity engine to develop our game.

The other tools that we plan on utilizing are Github, mostly so that we can have a public facing build and bug tracking system. This will also be good because it will give us the ability to have a seperate version control system in the case of Unity's collaborative tool were to malfunction.

The last tool that we have thought about utilizing is Blender. We know that there will be some rather unique game items in the house, that we hope will tell an interesting story, and we may end up having to create those models ourselves. Blender is a free tool that will give us those modeling capabilities should the need arise.

System Requirements

Due to the nature of our programming environment, this game will initially be limited to Windows and Mac platforms. Although we intend on utilizing an xbox or similar styled controller, so there will be a possibility of moving this game onto different platforms.

Gameplay

Overview

The basic idea of the game is to control a character, and work as a team with another character to reach the goal in the given amount of time. There will be basic physics such as gravity, movement, and object interactions built into the game. One of

the main ideas of the game is the lack of communication, and to best implement that,

we intend to not include any kind of communication service, voice or text based.

There are two players, the first player would be the ghost. The ghost has the

ability to move through walls, and will have the ability to interact with objects by applying

a telekinesis style force upon the object. This force will be an impact style force, and will

not be a constant force. In other words, the ghost will have limited ability to push items

for extremely short periods of time. The ghost will also have the ability to knock on

doors, and be able to create noise. Not only will this add to the haunted aspect of the

game for player 2, but it will allow the ghost to be able to try and direct the player to

investigate the area of where the noise was detected. The player cannot move outside

the external walls of the house.

Player 2 is the human player. The human player will not be able to see the ghost

except while in the dream state. While in the dream state, the player will be able to see

the ghost's shadow within the confines of the house.

Gameplay description (FEs: players/objectives)

The principle gameplay is based upon an escape type scenario. Although not in

the generic sense of the word escape. For our initial release we plan on having a race

against the clock escape, but for future releases we may move more into trying to allow

the players to have time to learn about the Ghost's story. Again, this is a 2 player game

only, were one player has to attempt to lead another player through the house and to

the objectives without the ability of communication. Our hoped outcome is that this will be a game with a non-zero sum level progression advancement.

Controls, Rules and other Formal Elements

Controls

For optimal use out of the game it is recommended to utilize a PS4 controller, as the game is optimized for that controller and control scheme.

- Left stick for movement, Right stick for camera
- X to interact with items
- O to drop items

Interfaces

The game will likely have some sort of simplistic menu to allow players to connect to each other during the gameplay. This will be simplistic in nature because we do not intend on developing a server or network lobby for the game.

There will be some interfaces to show information about objects for the Human player, and an interface that the Ghost player can interact with in order to keep track of the current objective.

The final interface will be the input device. We plan on moving away from the keyboard, and utilizing an xbox or equivalent style controller for our game. The button layout and configuration will be a first person shooter style button mapping.

Rules

Both players have the ability to turn on and off lights. Both players also have the ability to move about the level. Neither player will be able to communicate with the other player via any direct style communication, either verbal or non-verbal.

Because there are different players there will be different controls for the lights. A quick example would be that the Ghost will only be able to interrupt a lightswitch for a short period, thus causing the lights to flicker, while the Human can turn on and off the lights. This will add a more Dynamic lighting effect to the game, and will likely add to some of the character of the level that we will be going for.

The Ghost will not only be able to move throughout the level, but also move through walls and doors, with the exception of the external walls, windows or door frames. The Ghost will also be able to knock on doors, thus creating noise that can be heard by both players. The final thing that the ghost will be able to do is to push objects. Although the Ghost cannot interact with objects by carrying or picking up objects, the Ghost can move objects by pushing them.

The Human can only see the Ghost during his/her sleep. At any other time the Human will not be able to see the Ghost. This was decided to try and allow there to be some form of a hint system in the game. The Human will be able to interact with objects by picking up the objects. While holding objects the Human will be able to determine what the objects are, and what they could be used for.

Scoring/Win Conditions

Player must escape the house in order to win. Each puzzle the players solve will increase score, but the ultimate win condition is successfully clearing the house and escaping.

Resources:

Time will be an initial resource during the first few releases. We want to have that be a resource initially because we believe it will help us along while we develop the initial puzzles, and will let us focus more on the puzzle aspect of the game rather than the story.

Another critical resource in our game will be the physical objects lying around the house. These objects will add a physical story to the game, and some will also act as the instruments of advancement as the game unfolds.

The last critical resource will the how often the Ghost can move items within the game. Each time the Ghost moves an item he/she will lose some stamina or similar power.

Conflict

The only real conflict will be the puzzles that are either in the game, or the puzzle that is the house itself. There will be Dilemmas that the Ghost will have to overcome, like how to best lead the Human through the house to each of the objectives and that itself could be considered a puzzle.

Boundaries

For the Ghost, this will be the external walls of the house. For the player it may differ slightly depending on if a balcony is included in the game or not. For the initial release there will likely be the same boundary for both the Ghost and the Human.

Levels

There may be a possibility of multiple levels, but the main goal for the initial public release is to create a 3-story interactive level that the players can explore and figure out how to complete the objectives based upon the level given.

Game Characters

Playable Characters

Character 1 will be a ghost. This player cannot be seen by player 2, except during certain times specified within the formal elements.

Character 2 will be a human that is trying to communicate with the ghost, solve puzzles and escape the house.

Computer Controlled Characters

The dog is a simple AI with a dual task of being the pivotal conflict of the game. The player's must figure out how to interact with the dog in order to successfully complete the game.

Interactable Items

There are multiple items throughout the house that the players can interact with. Ranging from dog treats to a computer. Each interactable item has a purpose within the game in both solving, and creating conflict.

Story

The ghost had passed away in the house. Upon the human finding an item that had belonged to the ghost, the ghost becomes empowered and can now interact with certain things. The ghost wants to lead the human through the story of its life and death. In the end the player has to escape the house before they also die.

Alpha release notes

Playtesters asked for several items including a minimap. The other item that was requested was larger letters for the game instructions and introduction. The camera was hard to use and was extremely slow when turning. They also wanted text to be displayed when items were encountered that were significant. Another item that was requested was for the Dog's sensory radius to be increased significantly so the ghost could attract the dog more easily. Someone suggested to make it so the ghost could be seen through the wall, and to simply change the ghost so that the outline would not be seen when intersecting a wall.

Beta release notes

Play testers asked for more guidance, or a better instructions so they can figure out how to play the game better. The other thing that was often requested was faster movement in general. Certain play testers did not know if they could just start exploring, or if they needed help from an outside source. Another item that was asked to be fixed was general camera movements, as some play testers felt the camera movement was too slow.

One play tester provided ideas on how to give instructions to players. A play tester also asked for controls to be drawn on screen when players were looking at an interactable item. The other item that was mentioned was the narrow hallways.

Fixes implemented for public release

The camera script had increased speed. The corridors were made larger. The level was redesigned in order to be smaller. Decorations were added to the house so that it did not seem unfurnished. The Dog was changed to be the pivotal conflict of the story and the key was removed due to technical difficulties.

Conclusion/Follow-Up Notes.

Collectively we were most proud of the asymmetrical gameplay between the ghost and human players. We were also proud of the intricate puzzle that we included as the entirety of the game. One of the key differences that made our game unique from a technical standpoint was the difference in object interaction and collider interaction between the two players, along with those networked differences. The ability for the ghost to travel through the inside of the map, and not be able to escape the house, along with the ability for the human to not be able to do the same thing was definitely a formal element that made our game quite unique.

We attempted not to modify the game design because we believed that the original idea had huge potential. Most of our ideas remained out of the game due to technical reasons. That being said, one of the largest formal elements that we scrapped was the ability for the human player to sleep. We would probably improve the networking of the game by implementing a server to allow players to interact easily over the internet, along with a better menu system.

One of the biggest things we learned from the playtesters was that one of the most obvious issues of camera control and interaction was probably the hardest for us to get right. There were some other things that we learned, but this was probably the most subtle issue that we had issues with on multiple occasions.

Sources:

Skeleton Key by [Jerad Bitner](Deprecated during public release)

Samurai Armor by [Teh LaughingMan](Deprecated during public release)

Furniture taken from Unity Asset Store

Human object by Amy Chen

Ghost object by Angela Yip