ARIN2640

Assignment 2

Document Pitch:

Blinded

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Blinded

A VR Experience

Introduction.

Blinded is a game with a simple purpose: show players what it is like to be visually impaired.

For our game, we were approached by Guide Dogs Australia in order to create a product that would help raise awareness of their cause and educate players on the difficulty that visually impaired people face in their day to day lives.

They wish to create a product that would appeal to as many people as possible, and as such have defined an age range from twelve to sixty years of age, for both men and women. In discussions with our client, we have decided that the best course of action is to create a game that aims for full immersion - walk in another person's shoes.

The game is designed to create a realistic experience of being blind for the player. Thus we are going to deliver a unique experience by putting the players into the perspective of having their sight taken away from them.

Currently there aren't many affordable technologies that specialise in assisting blind people. Therefore, assistance such as guide dogs become vital in helping vision impaired people go about their day to day lives. Guide dogs become the companion as well as the only reliable source of vision that the player can rely on. The game will not merely put the player into a difficult position but also highlight how much trust a vision impaired individual places in their guide dog - only absolute and complete trust between the player and their companion could allow the player to complete the given task. This serious game will be a powerful communication tool that calls out to every player to lends their hands and assist the blind community.

User Interface

Settings + Synopsis.

TIn order to focus on the mechanics of the game, the synopsis is simple and straightforward for the player. Blinded will portray an authentic experience of a visually impaired person trying to overcome the challenges of his or her disability.

We want the player to complete a journey, not just a trip, as a trip means that the player has to get from point A to point B. To complete a journey means to go through different obstacles and struggles to achieve an objective and learn new things. The game will takes players through a couple of locations in order to demonstrate the difficulty of everyday day life without visualization. There are currently two 'landscapes' to work through. First is walking from one end of a park to the other, and avoiding hitting obstacles or running taking the wrong route. Obstacles in this mode are not as dense, as it's intended as a lower difficulty to get used to the game mechanics, and thus has less ways to lose. Second

stage is going through a city street and trying to get from one part of the city to another. This includes avoiding people, avoiding traffic, knowing when to stop at traffic lights, etc. Obstacles in this mode are much more dense, there are more sounds,and overall it is a lot easier to lose this game if you aren't paying attention to where your dog is trying to take you. The game will start when the player receive a phone call from a friend (His name is 'Greg' by default) who asks the player to meet him at a particular location that isn't too far from where the character is. The player is assisted with a guide dog, Angus, and together they make the journey to meet with Greg.

Game Mechanics.

Blinded aims to express the world to players with a sophisticated set of procedures that they could not be exposed to in any other gaming format. The VR technology we have chosen will provide players with a possibility space that reflects the reality of visually impaired people, thus creating a true 'alternate reality' experience.

The procedures (as defined by Bogost, 2008) of the game are reflected in several constraints:

1. The player is not able to see where they are in the game.

2. The player must play each level at least once without their guide dog, Angus. The guide dog will become available after the player has completed or failed the level.

3. The map is randomised each time.

4. The guide dog is the only lead to the endpoint of the game.

5. If the player enters a body of water, the game ends.

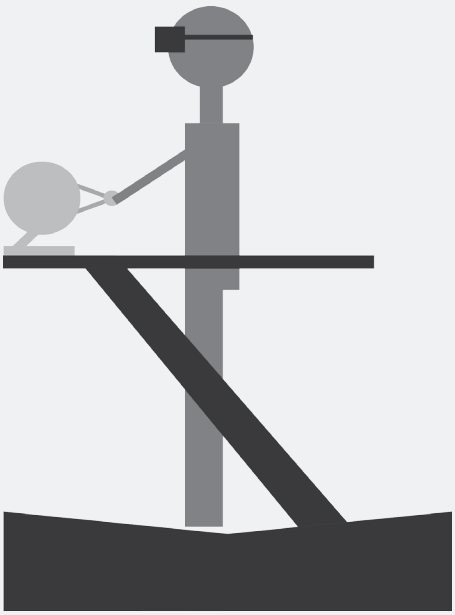
6. If the player enters traffic, the game ends.

7. If the player falls off a high area or object, the game ends.

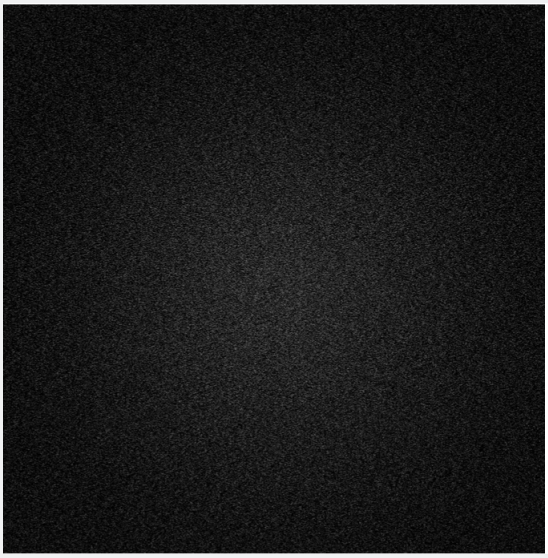
8. There is a time constraint for when the player must reach the endpoint.

The game at its core is very simple - you need to navigate a set of environments, progressing from A to B however you like, avoiding obstacles on the way. However, this is made difficult with the sense of sight being removed from the player.

Instead, we create a virtual reality where the player needs to complete the task as a blind person would - using only audio cues, very limited sight (whether an entire room is light or dark being an approximate limit) and the feedback provided by their guide dog through the novint falcon.



Environmental Set-up

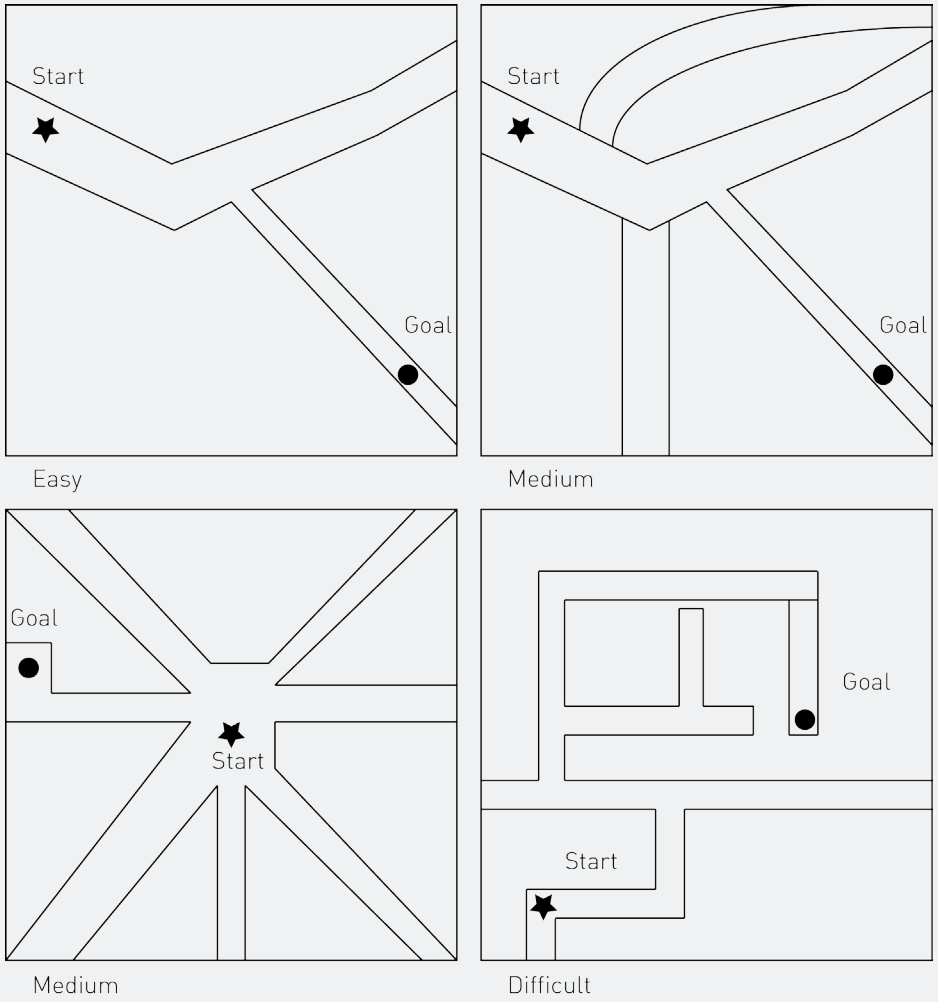


Glimpse of light from the headset

The user will stand within the Omni platform, with the Rift VR headset on and the Falcon controller attached to the platform.

The players movement on the Omni translates into movement within the game: To emulate a guide dog, the Falcon is able to move to any position around the user and provide sensations such as tugging.

The Rift provides us with stereoscopic visuals and head tracking. This is less important, but it lets us simulate the very low level of sight that many blind people experience. Additionally, the headset will allows us to transmit simulated 3D audio to the user, increasing the precision with which they can use audio to locate objects in space.



Example Level Layout

The layouts of each level within the game will be randomised, based on the type of challenge and difficulty selected by the player. We have chosen to randomised the levels to disorient returning players and continue to communicate the difficulty of being visually impaired.

Learning.

The player learns from the procedural rhetoric (Bogost, 2008) of the game, utilising the idea of position identification from Costikyan (1994). Blinded's possibility space melds together an AR of being visually impaired with video game constraints, such as time limits and walking into dangerous objects, creating an environment in which the player adopts the position of a blind person.

This is a mix of ludus and paidia (Frasca, 2003) with the intention of truly exposing to players the difficulty of being visually impaired.

The player has clear a clear ludic goal, which is to reach the endpoint. There are many ludic rules which are reflective of video games. The guide dog itself acts as a ludic object: it is morally charged to promote the necessity of guide dogs and is created to be a much better alternative than going without the dog. Yet the game is not exclusively ludic: the game's possibility space promotes some level of paidia as it is manipulated to remove the player's primary sense.

The lack of sight puts the player in an awkward position: they are not able to solve the game in the same way they could solve any walking simulation VR game, which is by looking for and visually identifying clues. For Blinded, this could have been street signs, or landmarks, which would have contributed to the ludic aspect of the game, but their removal puts the player into a state of paidia where they are forced to think of alternative ways to reach the endpoint.

In this way, the player is taught the difficulties of being visually impaired. Every aspect of the game except for the lack of visual cues is standard ludic gameplay, something they would be able to achieve easily with sight. This highlights the effects of visual impairment, and facilities a type of thinking that allows the player to come to their own conclusion about the difficulties of daily tasks without visual aid.

The game's main selling point is the experience that it can give the user: a step into a completely different reality for them but a very real life for the visually impaired. This is an instance of a VR game without concentrating on visual aspects, which makes it fairly unique. We searched through Google and weren't able to easily find if there are any other games that make use of virtual reality almost exclusively through physical/audio feedback, but we think that this is a direction that VR can certainly take players into.

Blinded introduces a different range of complementing technologies such as Virtuix Omni (Robertson, 2015), Virtual Reality headset and Novint Falcon (Dumas, 2008) in order to create a very authentic experience to the player. This is an innovative way to have player immersed into the character and interact with all their senses. We believe that elevated immersion will be a great selling point of Blinded.

References

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