Project Zombia – A Second-Person Game

It is a game that starts in an abandoned world with zombies. The player must kill the zombies to make out alive, but the zombies do not directly kill the player. A touch or scratch of the zombie would blind the player. Hence, the player should initially try to use an ability to control a zombie. When the player goes blind, he/she can use their zombie's perspective to navigate around the world and fight. There would be a medical supply or time out fir the blindness so that the player can return to their normal state. The final goal would be to finish the level by killing certain zombies and reaching a designated place.

Every video game has either a First Person Perspective (FPP) or a Third Person Perspective (TPP). In FPP, the player is indeed the character that he/she is controlling and look through their characters perspective. TPP is when the player follows their character at a distance and perceives the surroundings along with their character. This game introduces the concept of a Second Person Perspective (SPP). In SPP, the player has full control of their character, but their view is from the narrator or an enemy or in general any other character. I wanted to give everyone a view of how SPP works and how the concept can be used to make more useful games.

Games having a Second Person Perspective (SPP) often do not make it useful in any way. Trover Saves the Universe is a true SPP game that was made as a satirical game as it was made solely to show the existence of SPP. Other older games like Battletoads and Driver: San Francisco have implemented SPP only as a part of it for just a single level even though its existence was never really required in the game. So, my game aims to make SPP not as a part of the game but have it in such a way that it is a necessity for the player to be able to complete the game.

Since, this game is being made to be as a general survival shooter game, it is indeed aimed towards all the gamers but more specifically, it is being developed with an ideology of inculcating SPP. So, to be precise, this game can be more appreciated by game enthusiasts and theoretical thinkers who seek for practical approaches. This game is not being made with kids in mind. Hence, adult supervision is advised. This game idea has a potential to be released to the wider gaming community as it includes a novel approach.

1. A Second Person Perspective (SPP) is being added to a survival shooter game for the first time. It was previously tried only in arcade games, Role Playing Games (RPGs), etc.

2. SPP being used as an ability and a requirement for a game has never been done before. This project has the potential to show how such a change can boost the gameplay experience.

3. A novel approach for a general storyline in a game. Being able to control zombies was never seen in the mainstream games. Players were only allowed to kill zombies and move to next level.

Below are the 3 cases that point out to the fact that implementing an SPP in a 3D space where the 2 characters are against each other would fail. Hence, this project aims to make a game which is designed in a way that SPP is considered more as a feature than a storyline and used in conditions where the characters are supportive and not against each other.

1. The first boss fight in Battletoads game requires the player to shoot the evil boss who keeps shooting at the player while looking at himself through the eyes of the villain. It was easier to control the player in this scenario as the game was designed in 2D but in a 3D world. This would mean that a player must control himself with inverted key map in his/her mind. This would make an existing game even difficult to the level that it doesn't appeal to the audience.

2. Trover Saves the Universe is a complete SPP game in which the player is a part of the game and he/she control a different character from his perspective. This led to a discomfort among the players as discussed in the first point, but the game developers tried to overcome in by including some teleportation methods, etc.

3. Driver: San Francisco has a mission in which the player gets into the soul of his partner in a car chase. The player must drive his car be looking through the eyes of a person driving a car behind him. An AI was added to the player's partner's car so that the player always stayed in the sight of his partner. This automation led to game crashes in some rare cases.

The crucial aspects of this project would be:

1. Designing a proper scenario that can utilize SPP as a feature and where it does not make the game neither too difficult nor too easy.

2. Testing the game every time changes are made. Testing out games can be time taking and SPP is still far too complex to wrap head around. It is a difficult task even for the developers as they need to accustom their mindset to a SPP environment.

Designing such a game within 2 months would require high level of game design experience as drafting a storyline, scenes, characters, sounds, etc. is not easy. A student starting out in the field would need 2-3 months for developing the game and an additional month to implement SPP in the existing game and to eliminate major bugs.

Development of this game in Unity 3D needs knowledge from courses such as Game designing. A general exposure to Python, Java, and C++ aids very much in using C# programming language. Data Structures and Algorithms play a key role in developing the core logic of any game. Explorations in Engineering helps in the overall structuring of the project and understanding key physics mechanisms of the game objects. Courses like Operating Systems and High-Performance Computing would assist in optimizing the game performance in various systems and in varying processors and GPUs. AI & ML would give the programmers a brief understanding of how AI agents work in games.

The project aims to provide a game consisting of a Second Person Perspective (SPP). The bare minimum work required would be to build a 3D world with player being able to control a character in the game. The project requirement would be developing a game that includes SPP. Further, a project of quality would be to include better sound effects, storyline, and a proper utilization of the SPP as a feature and aligning it to the storyline of the game. Efforts to publish the final game would be great as the efforts have been put towards a project that is now becoming a part of the real world and contributes to the ever-growing game industry.

The project requires a good system with the recommended hardware requirements to develop and run games in Unity 3D. A good quality 3D assets and sounds are required to build better world space and to provide a great game UI experience. A support from people experienced with Unity game development to guide in case of major problems.

I am working alone on this project. The reason I chose to work alone is that this project is something that requires creativity and implementation. Working in a group would need constant feedback from the team which can be a barrier during the pandemic. Also, a team would extend the time of this project as it might have a lot of clashes between the team ideologies, given the time frame. Since the ideas can be put to work then and there without the interference of a second person, working as an individual for this project would make more sense.

August 15 - September 15: Learning C# and building sample Unity environments.

August 15 - August 20: Brainstorming.

August 20 - August 25: Formalizing idea.

August 25 - September 1: Completing milestone 1.

September 1 - September 15: Collection of 3D assets and sounds. Designing game environment and deciding on the plot.

September 15 - October 1: Completing the environment and player movement. Completion of milestone 2.

October 1 - October 15: Implementing zombie AI and programming. SPP camera adjustment and sample gameplay.

October 15 - November 1: Further story line and backend logic implementation. Producing a working bare minimum prototype. Completing the 3rd milestone.

November 1 - November 15: Fine tuning, rigid testing, and building the final prototype. Testing the game on various platforms for platform independent bugs. Project presentation / 4th milestone.

November 15 - November 30: Making minor changes and finalizing the game. Finding the right platform and publishing the game for online players.

https://www.youtube.com/watch?v=mC8QoRa8y\_Q

This video was uploaded by Nick Robinson who give a crystal-clear introduction and explanation of a Second Player Perspective (SPP) in a game. He initially explains the concept and then gives the example of Driver: San Francisco. He did a lot of work and have even found out some bugs. It can be a very good starting guide to understanding how SPP works.

https://www.youtube.com/watch?v=4LL7d7a6HG8

Here, Chopper also gives a very good example and explains all the three perspectives with respect to PUBG or in general battle royale games. Although a very small scene of SPP is sown which is also in fact a recording of the enemy's view.

https://www.youtube.com/watch?v=pXlFa96L-rA

This video solely concentrates on the game Trover Saves the Universe and refers to it as a "True Second-Person" game in which, the player is a part of the game and interacts with the main character. The player himself cannot do anything but can control another player but from a fixed position. The creatively added a teleportation feature to overcome the demerit of the player not being able to move. Although the game has good graphics and implementation, the nature of its idea makes it so hard for anyone to play it.

https://www.giantbomb.com/second-person-perspective/3015-2722/

On the other hand, this article focuses on SPP as more of a concept and gives many other examples of how it was implemented. It also gives a good example of Mario 64 where, the whole game is seen from the perspective of Lakitu but indeed, the game was designed such a way that Lakitu always follows Mario which makes look almost as a Third Person Perspective (TPP). It also talks about the first boss fight of Battletoads where we look at ourselves from the eyes of the villain. It worked out because of the how the game was designed to be in 2D.

Although all these implementations and interpretations come close to represent a SPP, a true SPP would in fact, make it very hard for a player and it may even lead to a total failure.

Finding the right assets for a 3D environment and developing a proper storyline are the only major tasks. If the right assets are not found, there might even be a possibility of not being able to complete the project. So, I am keeping myself up to date of the trends and games on YouTube and other online sources so that, I can use the assets used in other simple 3D games. Another aspect would be the storyline where I need to think a lot to assess the gameplay and position players at the right spots.

D. Nagi Reddy (Father) - dnreddy1965@gmail.com

My father liked the idea but insisted on making a game that does not contain any violence, guns or killing as it would impact the players subconsciously. I have given a thought to it but SPP is a very distinct quality that needs to be carefully used. I could not come up with any other alternative where SPP can be made as a requirement for the player to win.

P. Sai Sudhamsa (Friend) - ps1247@bennett.edu.in

It was initially hard for him to understand but he did finally like the idea. He agreed on my opinion but couldn't come with any interesting game ideas.

Dr. Suneet Kumar Gupta (Associate Professor) - suneet.gupta@bennett.edu.in

Sir appreciated my idea for the novelty but cautioned that it might be a big project and that I might not be able to complete it. I explained how I wanted to proceed, and he accepted the idea.

1st year - Text encryption/decryption GUI application in Python using Tkinter. It has custom encryption method, and the user is provided with various options at each step to create his/her own encryption method.

Team: Fanindhra, Rampavan, Shashank, Srikanth

2nd year - Offline cab booking system apps using SMS for communication and GPS for location built using Android Studio. It consists of 3 apps for Admin, driver, and user. All the processing is done in the admin app.

Team: Rampavan, Sandeep, Karna

3rd year - Image caption generation in Telugu using InceptionV3 and custom LSTM network. Flickr8k data set was translated to Telugu with the help of Google translate API and used for training the model. Also published to the IEEE Xplore digital library.

Team: Rampavan, Sandeep, Nivas

Only royalty free or genuine assets and sounds must be used as some files may have restricted access for public use. Also, the project should not be like any existing products which might result in copyright issues but as this project is completely new, there should be no problem with the content. Any assets, sounds, or content used in the project must be given credit for their respective creators. Regarding the gameplay, the players must be warned ahead about any violence or sensitive content else, any loss or injury caused by this project would be linked to its developers.