The development of an effective Audio-Visual Horror experience in Virtual Reality

A Project Proposal presented to the Institute of Creative Technologies at De Montfort University

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# Nomenclature

VR: Virtual Reality

IOCT: Institute of Creative Technologies

MTI: Music, Technology and Innovation

## Aims and Objectives:

The development of the VR Horror Experience has multiple aims and objectives, these are;

* Create an Interactive VR Experience that is viewed as immersive and engaging by testing participants.
* Create an Interactive VR Experience that is viewed as scary and surreal by testing participants.
* Distribute the VR Experience on a digital marketplace, with monetisation and marketing strategies in place to maximise profit and exposure.
* Collaborate with Harri Bettsworth as the project composer to develop an Audio-Visual experience.

## Contextualisation:

The project began when discussions between Harri Bettsworth from the MTI course and I concluded with us wanting to collaborate on a game, with Harri wanting to focus on composing for a horror game for her work. The inspirations for the composing and game design are the same, with games and movies such as The Shining by Stanley Kubrick (1980), Eraserhead by David Lynch (1977), and Silent Hill 2 (Tsuboyama, 2001) directly influencing the sound and game design with their shared theme of Surreal Horror. Context was researched from surrealist horror films and horror games. Inspiration was also gathered from non-horror games and from both VR and non-VR platforms.

Due to VR being a difficult platform to get used to, inclusion options such as the ability to toggle character rendering from games such as No Man’s Sky VR (Murray, 2019) are influencing the design of the VR experience, as reducing the barriers to accessing and enjoying the experience only improves the audience scope and entry skill level required.

In terms of creating an audio-visual experience, the games Outer Wilds (Beachum, 2019) and Hellblade: Senua’s Sacrifice (Antoniades, 2017) have both influenced the design. The Outer Wilds soundtrack is played in part by multiple in game characters, slowly introducing the player to the soundtrack before giving them the ability to listen to all characters playing together. This way of incorporating the soundtrack into the game world engaged me immensely and similar effects would benefit my VR experience. Hellblade also uses immersive audio to improve the experience, using binaural audio to mimic psychosis. Similar effects could help build on the surrealist horror effect of my VR project.

Alongside examples of similar works, frameworks such as Guiding with a Soft Touch by Mark Tempini (2019) will be used to develop strategies for directing the players attention, and frameworks for immersing users in virtual reality (Kanamgotov, 2015) will be followed to help create a truly engaging Audio-Visual horror experience.

## Foundation Work:

In the past, I have worked on multiple VR and non-VR games, with VR examples being Void, a VR exploration game, and Unlikely Things, a VR artwork experience. My experience with VR and game development is in Unity, A game development tool, and therefore this will be the tool I use to develop my VR major project. Aspects such as virtual reality locomotion, interaction and spatialised audio are features I have developed before, with advanced lighting and special effects also being features I am familiar with development. This leads me to the prototype. This proposal and experience design has been developed alongside a Horror VR prototype, that has interactable items such as flashlights, knobs, and levers, with interactive spatialised audio with closed captions all pre-developed. This enables me to be more confident in the 10-week development cycle of the project.

## Workplan and Project Plan:

The timeline from development begins at week 1 with initial development, with testing beginning at week 3. I plan to then by week 4 have a solid prototype that I can then begin implementing a story into the experience. Then between week 5 and week 8, marketing and distribution will begin, with a social media campaign and digital store rollout, with the final weeks left allowing be to focus on polish and developing a website and a transmedia storyline to generate interest with the project.

## Risk Factors and how they will be Mitigated:

The development and audio composition will be done separately, with Bi-weekly meetings and GitHub being used to implement Harri’s composition progress into the experience. This mitigates the risk of any teamwork issues, as most of the work will be done independently. I use GitHub to store the files and keep track of version changes, with a Kanban board to track the experience development and keep progress at a steady pace. Development of the project will use both the Oculus integration and the OpenVR integration, allowing the project to switch platform and headset brand easily if issues arise with hardware.

## Development and Research Methodology:

This practice-based research project is being tackled with a methodology developed by Candy and Edmonds (2018) due to my experience with the techniques outlined. The overall focus of the project isn’t to necessarily develop new research for the field, but instead to apply research from the field into a practical project. By using a RIPA style of prototyping, something that is usually apart of my development strategies, I will be able to collate research and develop techniques and practices for creating immersive Audio-Visual VR experiences. Whilst designing the VR experience, a 6-part methodology from Polcar, Gregor, Horejsi and Kopecek, (2016) will be used to help generate a methodical approach to tackling the development as the project grows in size and scope. This will in-turn enable me to develop new research for the field, despite it not being a specific aim of the project to do so.

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