VR Storytelling Whitepaper: Night Terrors

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Note: This is an expansion of the in-class presentation I gave on 10/31/2016.

Introduction

"Night Terrors: the Beginning" is an Augmented Reality game currently under development by Novum Analytics. The game asks users to utilize their phone as a prism through which a horror experience is mapped out in their own home. The development team tried to crowd-fund the project through Indiegogo, but failed to meet their donation goal. They are continuing to develop the game at a slower pace with a team of three people.   A preview of the game is exclusively available in Apple's App store.

Concept

I spoke with Sean Evans, Chief Marketing Officer for Novum Analytics, and asked him about what sparked off the initial idea. Evans told me the development team were initially inspired by the movie franchise "Paranormal Activity". They liked the concept of seeing a horror event play out through the lens of an old-fashioned video camera, and believed if they developed the correct algorithms, they could convert a viewer from passively watching a movie into an app user who is an active participant in a "choose your own adventure" horror experience.

Foundations

The team decided to develop something which is accessible to the vast majority of consumers. While they considered creating a virtual reality project, they felt the equipment costs for VR are still prohibitive, and many consumers have low levels of exposure to the technology, which would limit their potential audience. Evans said the team also felt somewhat dubious about whether users would warm up to the idea of "strapping a screen to their face". Instead they settled on making an augmented reality experience which is available on a device many people already have in their pocket: a smartphone. Although smartphones were not specifically designed with A.R. capabilities in mind, the team believed they could utilize features such as: the back-facing camera, gyroscope and gps to fulfill the experience. Using the smartphone model also frees the user from cords, fixed-point sensors etc and allows free and unencumbered movement through the space. The team also decided that an A.R. experience might be superior in that it would add to the sense of dread for the consumer, as they would be relying on their smartphone as a filter to reveal the horrors happening in their own home. The team were initially four individuals based in the United States and the United Kingdom, and felt that since they were not an established media company, they should seek funding to assist in the development of the project. They set up a crowd-funding effort on indiegogo.com, asking for $70,000 and began working on a preview version of the game.

Cracking the Code

The heart of the game relies on one key concept: mapping out your home so the game can populate characters and effects within the actual dimensions of the space you're in. The team were somewhat reticent when talking about the algorithms they developed to drive this process,

and that seems to be because they're breaking new ground in certain ways. I asked if they were building these algorithms from scratch because no one was sharing information, or because nothing like this existed for smartphones, and their answers implied they thought they were charting new waters with the software they are developing. Their P.R. releases talk about four distinct algorithms they are developing to map out environments, but in layman's terms it comes down to this: at the start of the game the user is encouraged to move throughout their home in the dark with only the light of their phone's camera to illuminate the way. The algorithms use light data to sense depth and movement, allowing the app to get a sense of the boundaries of the location. This is integrated with the gyroscope information and built into a map of the user's home space. This information is then used to populate the space with relevant characters, effects and audio cues to build the experience within the user's home environment. Binaural audio cues are used to lead the user to point their device towards where the action is taking place.

Aesthetic

The team say they are very much inspired by old horror movies which relied on special effects as opposed to computer generated effects. They cite the special effects creators of "Evil Dead" and "Nightmare on Elm Street" as inspirational. This might seem like an odd choice for a software driven company to make, but the way they're enacting this plan is anything but antiquated. The team physically build the characters and props they need for the game, often in full-scale. They also use special effects make-up on actors, and then use high definition photography and 360 degree scanning to ingest digital images of the physical effects. The digital images of physical objects are then inserted into the digital feed the user sees on their screen, which shows their

physical environment populated by surreal characters.   By mirroring the process (physical

environment converted to digital image, physical effect converted to digital image) the team

hopes to make the experience feel as realistic and well integrated as possible.

Getting Attention

The developers put together a stripped-down, shorter version of the game and made it available

on Apple's App store. The reasoning was two-fold: to show a proof of concept, and also to raise

some capital through the sale of the app (they charged $0.99). The app was picked up by some

gaming and technology sites (A.V. Club, Fangoria, Polygon, Jammer), and those reviews helped

to put a spotlight on the project. I personally tried this version of the app, and while it is limited

in terms of length it does genuinely create an eerie atmosphere. I personally experienced a sense

of fear and dread that went beyond my normal response to a horror movie. I was impressed by

the ability of the software to accurately figure out the layout of my apartment and populate it

appropriately with disturbing content. I was also impressed by the audio design, which both set

me on edge and also led me through the various points of the experience. The attention gained

by their indiegogo.com campaign, and reviews from various media outlets ultimately was not

enough to push them over their $70,000 crowd-funding goal and their project failed to fund. The

team decided to continue regardless, and say they were pleased to at least receive the focus it

brought to their project. They continue to develop the project at a slower pace with one main app

developer and their C.E.O. based in the United States, and their Chief Marketing Officer based in

the U.K. Sean Evans, their C.M.O., said the small team size has caused the development process

to become somewhat slower and more deliberate, but he says they are not unhappy with doing

things this way. Being a team of three allows them to bounce around ideas quickly, and change or alter course on specific elements in a short space of time.

Moving Forward

The lack of funding has slowed the project, but it has not caused the team to jettison any of the elements they originally wanted to include. The Indiegogo fundraiser collected over $40,000 from interested donors, and they now have over 9,000 likes on Facebook, which has created an active and dedicated fan base. The team say they are trying to balance satisfying the high expectations placed on them against fans' eagerness to get their hands on a complete project. The development team says their main focus is to "do it right" rather than rush and make a project which undersells the potential of the platform.

The team says their ultimate goal is to create an experience where the player can't find the edge between the real and the unreal. They cite Black Mirror's "Playtest" episode as an example of what they want to do (minus the mental breakdown of the central character). What they want to emulate is so thoroughly convincing an experience, that users forget it is curated and actually have real responses to the scenario.

While this project will take smartphone apps some distance towards that goal, I believe smartphones are currently too limited in terms of the physical technology to achieve this goal of total immersion. If smartphone makers focus more attention on V.R./A.R. ready features like: higher resolution, high refresh rate screens; better, smaller processors and eye-tracking

technology, there may be a clearer path for developers seeking to push this sort of content on mobile devices.

I think this project shows a remarkable amount of innovation, thought and attention to detail. Perhaps more impressive is the fact that this progress has been made on a non-traditional platform for an A.R. project. I can only imagine how much easier this project would have been to develop on a dedicated platform like Microsoft's Hololens. While their efforts with the current iPhone platform are commendable, I hope for the company's sake it's possible to easily translate these innovations into future smartphone platforms, as I believe that may give their projects a competitive edge, and a running head-start when V.R./A.R. features expand on mobile devices.