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Immersive Storytelling in Outer Wilds

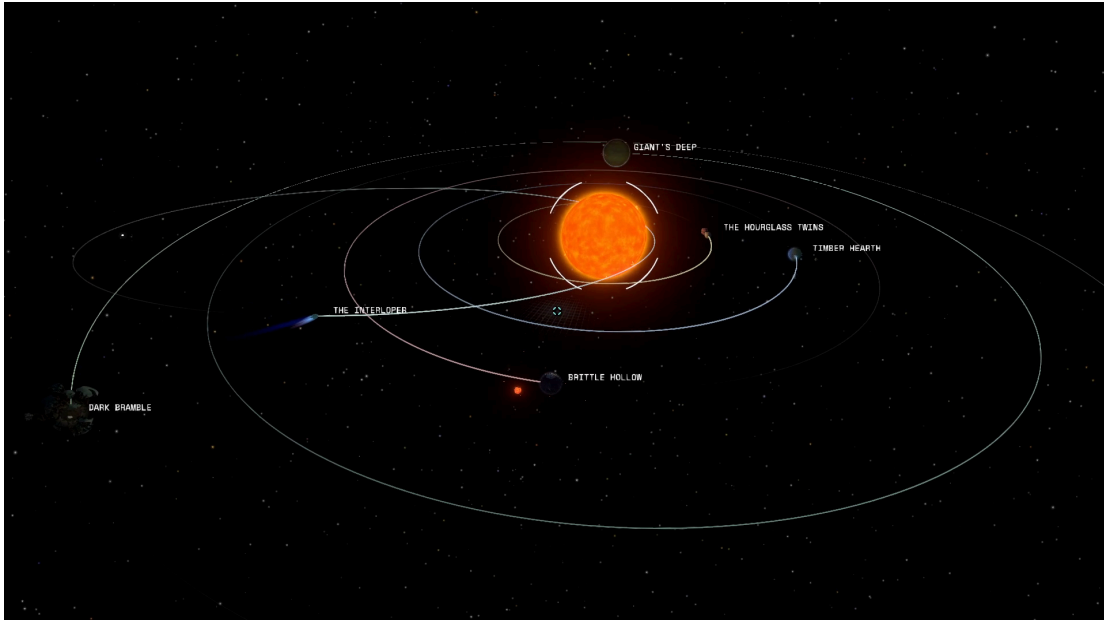
Intro

Video games are becoming more and more prevalent as a way to tell stories. Games like Red Dead Redemption and The Last of Us are known for their engaging narratives, so much so that it has become one of the main selling points of video games. Using Mobius Games' Outer Wilds, I will explore how games can take this effect even further, providing a rich narrative with constantly engaging gameplay. In a market where many video games have linear progression systems or a concrete way to measure how far along the player is, Outer Wilds stands out as a game where you progress by learning. It provides a unique experience by creating a feeling of wonder that the player feels when exploring the world of the game, and it does so with the only progression being knowledge of the game's systems and narratives. Its systems are set up in such a way that players can experience the game in their own unique ways, creating an original narrative experience that stands out from other video games. In this paper, I will set out to answer the question: how do the game design choices in Outer Wilds contribute to the storytelling and sense of exploration?

Immersive World Design

To discuss Outer Wilds at all, I must first acknowledge the world in which the game takes place. One of the main themes of the game is curiosity, and its world is designed with this in

mind. The player enters the world by waking up in their species' village, which is located on a green and blue planet with trees all around. This Earth-like planet provides a "home base" for the player, as the other members of the village all encourage the player as they prepare for their first space voyage as the newest astronaut in the space program. This immediately creates a sense of purpose for exploration, driving the player towards the goal of the game - discovery. Before the player takes off at all, they are given a map of the known Universe, featuring 7 completely custom celestial bodies that revolve around the sun. There are two main aspects of the world of Outer Wilds that contribute to its immersiveness. First, the fact that there are no transition screens anywhere in the game. Typically, when a player enters a new room or area in-game, a loading screen appears to give the game time to load new objects. Outer Wilds creates a seamless experience by having all loading take place in the background while the player has control, making the world feel much more natural to explore. Educator Kwaku Edusei, who uses video games to teach students, states that in his experience, curiosity and exploration "are part of a very large list of what makes video games fun, and are heavily tied to their often cool and realistic game worlds and environments" (Edusei). The seamlessness of Outer Wilds' world is a perfect example of this effect -- a lack of constant breaks makes the game more engaging.



The world of Outer Wilds.

The other major aspect of the world that drives exploration is that the player is stuck in a time loop. After 22 minutes of exploration, the sun goes supernova and the player's character is brought back to the same spot they started. The reason this works so well to enhance the sense of discovery is because the world the player explores is entirely predetermined. Planets all move in the same pattern, planets that crumble in one loop crumble the exact same way in another loop, and events that happen on planets always happen the same way, barring interference from the player. For example, on the Hourglass Twins, a column of sand flows from one planet to the other, filling up a cave system on one while revealing a set of ancient towers on the other. In an essay called "Designing Games for Exploration", game designer Chris Cunningham emphasizes that exploration in games should be "thrilling", but also that "punishments for failure ... need to be carefully balanced" (Cunningham). By allowing the player to explore anywhere in the world but not allowing them infinite time to do so, Outer Wilds finds a perfect medium between punishment for the player's mistakes and reward for the successes of reaching a new area. One of

the biggest examples of this occurs on the Ember Twin, which is the planet where sand slowly fills up its cave systems as time progresses. In order to explore a location called the High Energy Lab, which contains valuable info about the nature of the time loop, the player must get there early enough after waking up to traverse the caves without being buried by sand. This is not easy to do without knowing the layouts of the caves, and it can take multiple failures to learn the path. However, the punishment for failing to make it in time is always “try again next loop”. The player does not lose any progress, which encourages them to try new things and be creative in their exploration.

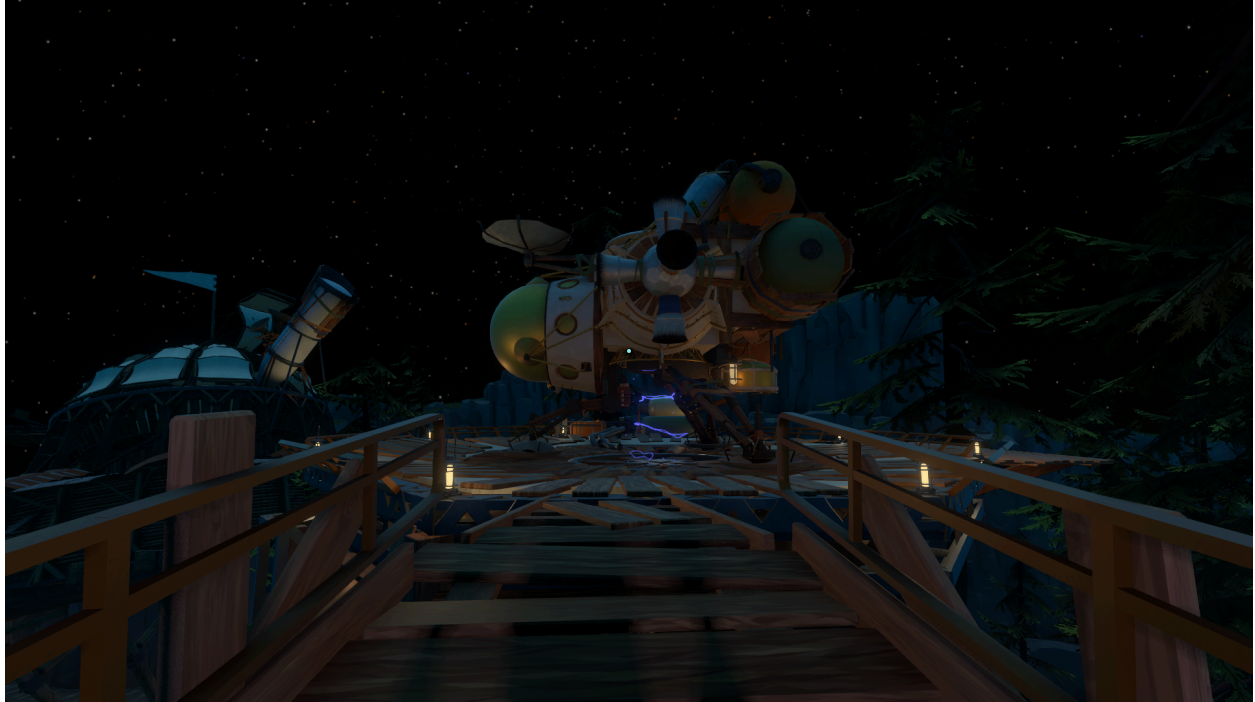


A column of sand flows between the Hourglass Twins, putting the player on a timer to explore them.

Immersive Gameplay Design

Outer Wilds' gameplay serves to immerse the player just as much as the design of its world. For starters, the game is played entirely in the first person perspective. This lets the player

feel like they are the one setting out on a journey and creates a deeper connection to the characters and lore. In the game's starting village, one of the first things the player encounters is a model spaceship that they are able to fly around. Shortly after, the game reveals the non-model spaceship to the user, and they are to step inside and fly it themselves. The fact that the player can walk into and around the ship in first person adds to the sense of wonder. If the game were to force the player to fly in third person, it would break some of the immersion created by physically walking around on the ship and taking off in first person. The only tips the game gives for flying the spaceship are in the form of controls - the rest is up to the player. Initially, this holds the player back from exploring deeper into the game, as they may not be immediately comfortable with the mechanics of flying the ship, but as the player experiences more time loops, the ship becomes a tool for discovering new planets. This effectively creates an alternate sense of progression for the player -- once they are more comfortable flying the ship, they are able to get to places more quickly and discover more new information in a single loop.



The ship the player flies in Outer Wilds.

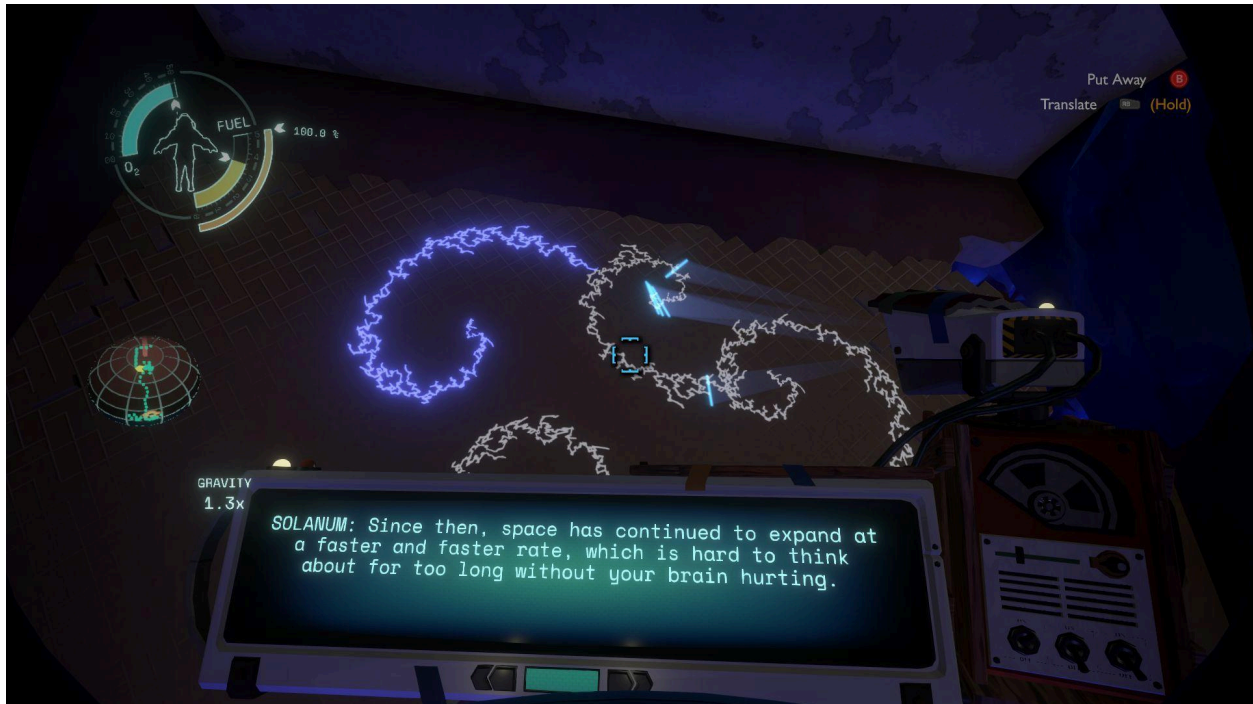
Once the player is able to fly the ship, the main gameplay comes in the form of discovering ancient text left behind by a civilization that used to live in the same solar system millions of years ago. Reading this text updates the player's ship log, which, as more is discovered in the world, creates a web of how all the places and events of the world connect to one another. Additionally, each of these places of interest (POI) is color-coordinated with one of the four main "Curiosities" in the world. After discovering a POI, the ship log is updated with the new information about how that place links to its Curiosity, and provides a clue about one of the world's major mysteries. The ship log is one of the main forces driving the progression in Outer Wilds, and other than aggregating information the player has already learned, it provides no extra abilities or advantages. This system allows Outer Wilds to be purely driven by the curiosity of exploration.

This system of discovery was intentionally designed to mirror the goals of space exploration that humanity does in real life. Because every bit of progress in *Outer Wilds* is only gifting the player with knowledge, the main reason for exploration is to answer questions about the world of the game. In the words of the creative director of the game Alex Beachum, “the fact that the Curiosities themselves exist solely to answer major narrative questions (and offer no other tangible rewards) is intended to craft an experience in which the most strongly supported purpose for exploration is to learn more about the Universe and how it works” (Beachum 11). For centuries, humans have looked up at the stars and theorized about what exactly is out there. The desire to discover answers to fundamental questions about the universe we live in is a key reason why humanity explores space. The official NASA website, headlined with the title “Why We Go To Space” states that “NASA’s exploration vision is anchored in providing value for humanity by answering some of the most fundamental questions: Why are we here? How did it all begin? Are we all alone? What comes next?” (NASA 2023). *Outer Wilds* takes this innate craving for answers that we don’t yet have in the real world and provides a fictional story designed to scratch that same itch, only with all the answers available for the player to uncover.

Curiosity-Driven Narrative

Outer Wilds tells its story in an unconventional way compared to most other video games. Rather than having a linear story told by concrete events that the player experiences, *Outer Wilds* has two major qualities that set it apart. The first is that the player uncovers the story as they play the game. At the start of the game, the player knows nothing about the world, and they discover small pieces of the story as they explore new places. This is referred to as an “embedded narrative”. In Henry Jenkins’ paper on game design, he states that in order for a

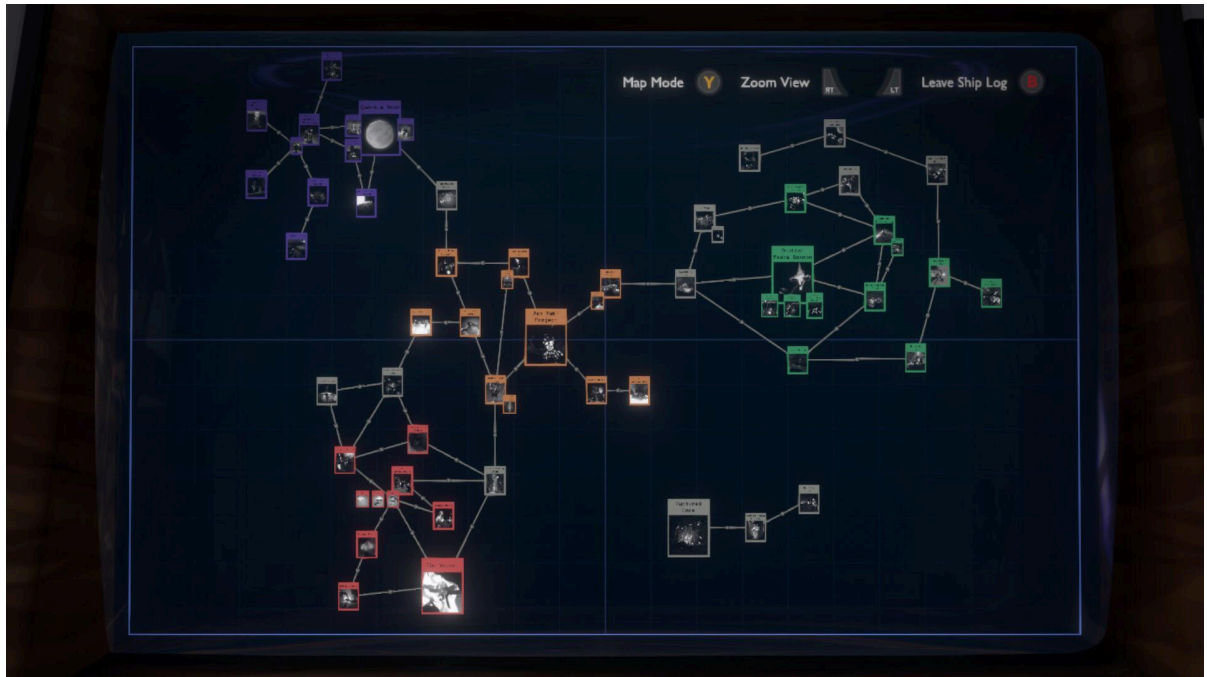
game's narrative to be embedded, "essential narrative information must be redundantly presented across a range of spaces and artifacts, since one cannot assume the player will necessarily locate or recognize the significance of any given element" (Jenkins 10). This type of narrative inherently creates a sense of discovery in the game, as the player is incentivized to keep exploring and discover secrets. This can be seen in the way that *Outer Wilds* keeps track of what narrative information the player has encountered. The player's ship is equipped with a log, which provides a web of locations, events, and ideas that fills itself in as the player explores. As new information is found, the web creates ties to itself and to the main Curiosities of the game that lead the player closer to understanding the full story. Additionally, locations that are physically far apart will appear next to each other in the ship log if they are narratively related. Essentially, when the player discovers something new in the world, they may not realize the significance until it appears alongside one of the mysteries that they have been unknowingly chasing after all along.



Players learn about the world in Outer Wilds through interactive dialogue throughout the world.

The other narrative technique Outer Wilds uses is that the player can uncover the game's story in any order. There is no first or last POI to discover, and the player is free to piece the story together in any order. This is referred to as an "emergent narrative". Jenkins explains the concept in his paper: "in the case of emergent narratives, game spaces are designed to be rich with narrative potential, enabling the story-constructing activity of players" (Jenkins 14). By letting players uncover the story in any order, Outer Wilds lets the player create many different emergent narratives as they try to find explanations as to why the world they explore is the way that it is. For example, reaching the Quantum Moon, one of the four Curiosities, requires the player to piece together three rules related to quantum mechanics that are discovered on three different planets. Because there is no one order to explore these planets, players may discover quantum rules in any order, leading to different theories and ideas about how to progress.

Reaching the Quantum Moon provides the player with lots of answers to the game's mysteries, and doing so without exploring and discovering the three rules is nearly impossible.



The ship log in Outer Wilds tracks the player's progress and connects all the story points together.

These storytelling techniques serve to create a great sense of ludonarrative harmony throughout Outer Wilds. This is essentially an informal measure of how immersive a game's story is with regards to its gameplay. For example, a game with a very dramatic story that is told through a series of low stress dialogue choices may feel less immersive than one that is told through high action sequences (Seraphine 2). In Outer Wilds, the game's story is completely told to the player through the exploration of ancient artifacts and conversations. Appropriately, most of the story is about uncovering the ancient research that explains the nature of the game's universe. This similarity creates a very strong ludonarrative harmony, which helps Outer Wilds to feel even more captivating.

Game designer and early pioneer of academically studying video games Jesper Juul writes in his thesis “A Clash Between Game And Narrative” that games can not be used to tell stories any differently than a book or a movie could. Speaking about games, he says “interactive narrative is not impossible, that is, works can be created that are alternating narrative and interactive. But it does not create something new, something just equal to the sum of its parts” (Juul 76). However, I believe that Outer Wilds provides a storytelling experience that could not be replicated by another form of media. The narrative techniques Outer Wilds uses were not being applied to games in the late 1990s, and the field has progressed greatly. The game’s non-linearity is something that can not be achieved with the same level of grace in another medium, and it goes to show how Outer Wilds is a big stepping stone in its field.

Conclusion

Outer Wilds provides a variety of examples of how game developers can use design techniques to more effectively tell a story in their projects. Because it was developed with discovery and exploration as the main focus, the game creates a unique level of immersion that serves its carefully thought out narrative. Seamless transitions between areas in the game help the player to buy into the world and its history. A dynamic solar system with forces that occur naturally, regardless of how the player interacts with them, creates a sense of realism that immerses the player in the story. Letting the player freely explore the world and have their own individualized experience playing makes the game feel deeply personal, which in turn allows the themes of humanity and community to hit the player harder than most modern games can accomplish. All in all, whether it be the design of the world, gameplay, or narrative, Outer Wilds sets a benchmark in the game development field for future developers to expand upon.

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