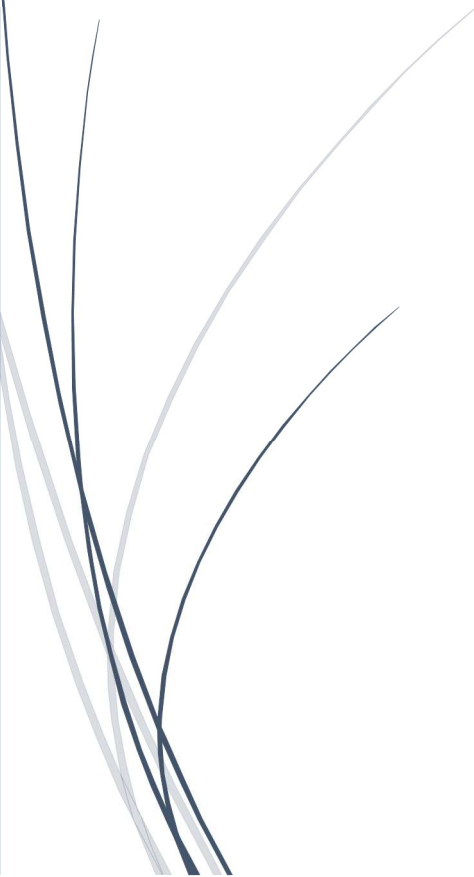


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4/27/2023

PORTFOLIO REPORT

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1. Proposal for Cultural Heritage Game

Game Proposal: *Lost in the Museum*

Concept

Lost in the Museum is a narrative-driven, immersive game that leads players on an exciting adventure through a mysterious museum. Unique narrative, memorable characters, and innovative gameplay mechanics will captivate players. The game features a 2D top-down layout.

Core Gameplay

Lost in the Museum's core gameplay focuses on exploration, puzzle-solving, and narrative-driven decisions. The protagonist is an Egyptian historian searching for a stolen artifact from his homeland. The players must navigate through the museum's exhibits and solve a variety of puzzles to discover the building's hidden mysteries. These puzzles are designed to be challenging but not frustrating. These may include discovering concealed objects, deciphering codes, or manipulating the environment. The objective is to discover the stolen artifact's location in the museum by locating its clues. The game has an engaging plot, memorable characters, intriguing artifacts, and immersive gameplay mechanics. The gameplay is strongly narrative-driven. Players make decisions throughout the game that affect the outcome of the plot.

Target Audience

Lost in the Museum is targeted to a mature audience that prefers games with thought-provoking stories, complex characters, and immersive game environments. With various difficulty settings, the game is suitable for participants of varying skill levels. The game's assortment of tools and devices, as well as its multiple endings, make it appealing to players who prefer more open-ended gameplay.

Core Features

- Multiple branching storylines and endings that are impacted by player choices
- Atmospheric and visually appealing game world
- Challenging and rewarding puzzle-solving gameplay
- Engaging and well-written storyline
- Memorable and relatable characters

Design Patterns

Lost in the Museum uses several design patterns to enhance the gameplay experience and create a cohesive game world. These include:

- Narrative Design Pattern: The game's story is presented through dialogue, cutscenes, and in-game events that players can interact with. The narrative design pattern was chosen to create a compelling story that would engage players and encourage them to continue playing the game. Studies have shown that narratives in games can enhance player engagement and motivation (Grodal, 2003); (Klimmt, 2008).

- **Puzzle Design Pattern:** Lost in the Museum features several puzzles that players must solve to progress through the game, designed to be challenging but not frustrating, encouraging players to think creatively and critically to find solutions. Research has shown that puzzles in games can improve cognitive abilities and problem-solving skills (Subrahmanyam, et al., 2000). By using the puzzle design pattern, the game creates a challenging and rewarding gameplay experience that enhances players' cognitive abilities.
- **Exploration Design Pattern:** The exploration design pattern was chosen to create an immersive and atmospheric game world that encourages players to explore and discover its hidden secrets. It is used extensively in Lost in the Museum, with the game's museum setting designed to be immersive and atmospheric, encouraging players to explore and discover the game world's hidden secrets. Studies have shown that exploration in games can enhance player engagement and motivation ((Ryan, et al., 2006) (Nacke, et al., 2010)).
- **Dialogue Design Pattern:** The dialogue design pattern is used to create a sense of immersion and engagement with the game's characters, providing players with a sense of agency in the game world. By using the dialogue design pattern, lost in the Museum creates a sense of agency and immersion that encourages players to explore the game world and engage with its characters. Research has shown that dialogue in games can enhance player immersion and engagement ((Bizzocchi & Tanenbaum, 2015); (Hunicke, et al., 2004)).

2. Pitching for the Cultural Heritage Game

Pitching for the game: Lost in the Museum

I am here to pitch a new game proposal called "Lost in the Museum". I and my team have been working tirelessly on this project and we believe it has the potential to be a truly innovative and exciting game for players of all ages. The game is a narrative-based puzzle game that takes place in a fictional museum. The player takes on the role of a veteran Egyptian explorer who visits the museum to find clues about an important artifact that has been stolen from his homeland. They must navigate through the museum, solving puzzles and clues to find their way out.

One of the key features of the game is its multiple branching storylines and endings that are impacted by player choices. The gameplay in Lost in the Museum is strongly narrative-driven. Players make decisions throughout the game that affect the outcome of the plot. We believe that this will be particularly appealing to mature audiences that prefer games with thought-provoking stories, complex characters, and immersive game environments.

The game also incorporates a visually appealing game world and immersive background scores. The game's visual style is realistic and detailed, with high-resolution textures and lighting effects that create a sense of depth and realism. The colors and lighting are designed to be dark and moody, adding to the game's overall sense of mystery and tension. The sound design is also crucial to creating the game's immersive atmosphere. The game features a haunting musical score that builds tension and creates a sense of foreboding. The sound effects are meticulously crafted to be realistic and detailed, adding to the overall sense of immersion.

In terms of design patterns, the game uses a narrative design pattern by creating well-written narratives in games that can enhance player engagement and motivation. The game also gives emphasis to puzzle design pattern, exploration design pattern as well as dialogue design pattern. Lost in the Museum creates a challenging and rewarding gameplay experience that enhances players' cognitive abilities.

We believe that "Lost in the Museum" can be a hit with players of all ages, particularly mature players, and young adults. We are seeking funding from the local council to help us bring this game to life, and we are confident that it will be a valuable addition to the community.

3. Design Issues

The intricate process of game design involves the creation of engaging and immersive experiences for players. However, game designers face several challenges when creating enjoyable and demanding games.

One of the biggest challenges game designers faces is managing the game's difficulty. Game designers must create a progressive learning curve that enables players to pick up new skills and overcome new challenges. If the game is too challenging players will quit out of frustration. However, if the game is too simple, players will lose interest and become bored. The key to regulating difficulty, according to game design theory, is to design a game that is challenging but not frustrating. While I was brainstorming the idea for the game I presented, I had to spend a lot of time thinking about the puzzles and challenges to be added to the game. I wanted the right amount of difficulty in these puzzles. I wanted the challenges and puzzles that are neither too easy for the players nor too difficult for them. This balance in difficulty can be achieved using a variety of techniques, including offering tutorials or useful tips, escalating the complexity of the challenges, and rewarding players for successfully completing them. For example, in all the Assassin's Creed games, the game gradually introduces new challenges to the player, such as new enemy types and puzzles, and provides helpful hints and tips to help the player defeat these enemies and overcome these challenges.

The development of an engaging narrative is another difficulty that game creators encounter. A strong narrative may give a game context and significance, enhancing the player experience and making it more immersive. However, it might be challenging to develop a cohesive and interesting story. Theoretically, a good narrative should have a distinct beginning, middle, and conclusion, as well as clearly defined characters and an engaging plot that keeps gamers interested throughout the entire game. This can be accomplished in many ways, such as offering captivating cutscenes or dialogue, developing enduring characters, and creating a unified universe that players can explore. Again, it is important to strike a balance between gameplay and things like cutscenes and dialogues. Gamers would not prefer a game that has too many cut scenes and dialogues in it which would distract them from the gaming experience. Narrative design pattern is an important design pattern that I had chosen for the game, lost in the museum, that I designed. So, it was crucial for me to develop a strong narrative that can keep the players engaged. I knew what was the beginning and the end of the story that I wanted. However, it was challenging for me to design the plot that connects the beginning and climax.

The balancing of game mechanics is one of the main design challenges that game developers encounter. Game mechanics are the guidelines and interactions that determine how players interact with the game's systems and its rules. Game mechanics must be balanced so that players feel like they are progressing through the game while also being challenged without becoming frustrated. For players to understand how to play the game, the game's mechanics must also be unambiguous and simple. A fun and engaging game must have a balance of game mechanics, claims game design theory. The best practices for balancing game mechanics include prioritizing player choice, using feedback to guide decisions, and creating mechanics that support a variety of playstyles (Lee & Hammer, 2011).

According to game design theory, an integrated and compelling game world can provide players with a feeling of realism and connection to the game. Players can explore, learn about, and engage with the game's mechanics and characters in an engaging new setting when the game's universe is well-designed.

Consistent rules, a distinct visual aesthetic, and a logical narrative structure are all necessary components of a gaming world. Making sure that all game aspects, including mechanics, narrative, and aesthetics, are consistent with the game's overarching vision and theme is a design challenge of making a coherent and engaging gaming environment. Each game piece must easily integrate into the game world and add to the player's overall experience, according to game designers. The designer must see the game world as a cohesive system to create a unified game environment. The scenery, characters, plot, and mechanics of the game world should all be viewed by designers as interrelated components that must come together to produce a seamless and immersive experience (Schell, 2008). Using an aesthetic style that is cohesive and constant across the entire game is one way to overcome this difficulty. This can aid in developing a believable and visually appealing consistent and immersive gaming world. The art style of "The Legend of Zelda: Breath of the Wild," for instance, is constant throughout the entire game and features a cell-shaded aesthetic that contributes to the creation of a seamless and immersive gaming world.

Another important design issue in game design is the cultural appropriation and sensitive audience. Cultural appropriation refers to the practice of taking elements of a culture that is not one's own and using them in a way that can be disrespectful to a certain group. This can manifest in video games in various ways. Some groups can be sensitive to such appropriations. One example to this is the use of Native American headdresses as a cosmetic item in games such as Fortnite and Red Dead Redemption 2. This is an example of cultural appropriation because the headdress is a sacred item in many Indigenous cultures, and its use outside of its cultural context can be seen as disrespectful and offensive. The use of the headdress in these games could perpetuate harmful stereotypes and misrepresentations of Native American cultures, which can cause harm to Indigenous communities (CBC News, 2018) (BBC News, 2018). Game designers must take care to avoid such appropriation and instead work with cultural experts to ensure that cultural representations in their games are accurate and respectful. To address this issue, game designers can work with cultural experts and community members to ensure that cultural representations in their games are accurate and respectful. Additionally, they can avoid using sacred or significant cultural items as cosmetic items or game rewards, and instead focus on creating representations that are culturally appropriate and respectful. Game designers should be mindful of cultural contexts and respectful in their representations of diverse cultures. They should consider engaging with diverse cultural communities to ensure that their representations are accurate and respectful (Zimmerman & Salter, 2019).

4. Game Design Document: Lost in the Museum

Version 1.0

Overview

Concept

Lost in the Museum is a third-person puzzle-adventure game in a vast and mysterious museum. The game follows around a seasoned Egyptian historian who is looking for clues to find the artifact that was stolen from his homeland. Players must navigate through the museum's exhibits and solve a variety of puzzles to uncover the secrets hidden within the building. The goal of this game is to find clues about the artifact stolen from the clan and its location in the museum. The game features a captivating storyline, memorable characters, interesting artifacts, and immersive gameplay mechanics. The game uses a narrative 2D based design mechanics.

Style

Lost in the Museum will be a narrative based single player game. It will be designed in a 2D top-down model. This would have the character explore the museum interacting with people, exhibits as well as other objects in the museum to find clues about the final artifact. The player would be learning about the different objects of artistic, cultural, historical, or scientific importance to the Egyptian culture and mythology in the museum with these interactions.

Features

- Compelling storyline
- Memorable characters
- Challenging puzzles and riddles
- Variety of tools and gadgets
- Immersive third-person gameplay
- Mysterious and atmospheric setting
- Multiple endings based on player choices

Targeting

Lost in the Museum is targeted towards players who enjoy puzzle-adventure games with immersive storytelling and atmospheric environments. The game is suitable for players of all skill levels, with a range of difficulty levels to choose from. The game's variety of tools and gadgets, and multiple endings make it appealing to players who enjoy a more open-ended gameplay experience.

Game World and Narrative

Locations and Structures

The location and structures of Lost in the Museum are crucial to the game's overall atmosphere and gameplay. The museum is a large and complex structure, featuring a variety of exhibits, galleries, and hidden areas. In addition to the main exhibits, there are also hidden areas and secret passages throughout

the museum. These areas can only be accessed by solving puzzles or using special tools, like lockpicks. These areas are restricted to museum visitors, which means that the players must use stealth to explore these areas. Overall, the location and structures of Lost in the Museum are designed to be immersive and challenging, providing players with a unique and unforgettable gameplay experience.

Look and Feel

The game is designed to be dark, mysterious, and atmospheric, with a focus on creating a sense of tension and intrigue. The museum itself is designed to be a labyrinthine structure, with multiple paths and hidden areas to explore. The exhibits are meticulously crafted to be historically accurate and visually stunning, immersing players in a world of art, history, and culture. The sound design is also crucial to creating the game's immersive atmosphere. The game features a haunting musical score that builds tension and creates a sense of foreboding. The sound effects are meticulously crafted to be realistic and detailed, adding to the overall sense of immersion.

Characters

Lost in the Museum features memorable characters that players will encounter throughout the game. Here are some of the key characters in the game:

1. The Protagonist - The player takes on the role of a seasoned Egyptian historian, a knowledgeable and resourceful individual whose objective is to find the location of an important artifact that was stolen from his homeland. The curator is determined to uncover the secrets of the museum and find the artifact at all costs.
2. The Security Guards - The security guards are gruff and no-nonsense individuals who are responsible for protecting the museum and its exhibits. However, the guards could be suspicious if they find the protagonist in the restricted rooms and might try to catch the player.
3. The Museum Historians - The museum historians are knowledgeable experts in the museum. They provide valuable information and insights to the player, helping them to solve puzzles and uncover secrets.

Plot

The story of Lost in the Museum follows the journey of a seasoned Egyptian historian whose objective is to find the location of an important artifact that was stolen from his homeland in Cairo. As they explore the exhibits, they uncover clues and solve puzzles that lead them closer to the final artifact. Along the way, they will encounter a variety of characters, each with their own motivations and agendas.

As the player progresses through the game, they will discover that the museum holds a dark secret. They must use their wit and intelligence to uncover the truth and finally take back the artifact which rightfully belonged to his homeland.

Game Elements

Formal Game Elements

1. Player: The game has a single player, who interacts with other characters and elements in the game.

2. Objective: The main objective of the player is to find the stolen artifact. The players can also learn about the different artifacts that are present in the game. Throughout the game, the player will also have to enter some rooms that are restricted and make sure the guards do not catch him.
3. Procedures: The actions that the player can perform in the game are:
 - o Walking around the museum exploring the exhibits and finding clues.
 - o Interact with the artifacts in the museum to learn more about them.
 - o Interact with the NPCs to gather information.
 - o Solve the puzzles to gather more clues and explore the museum further
4. Boundaries: The player character will be limited to the boundaries of a room at any given time in the game. The player can interact with different game elements like NPCs and to know more about the artifacts in the room as well as to gather clues about the other rooms in the museum.
5. Rules: There will also be rooms in the museum that the player is not allowed to enter. The player will get caught by the guards if he tries to enter these rooms.
6. Conflict: The guards can be an obstacle for the player when he tries to enter some rooms which are restricted.
7. Outcome: The players can also learn more about many distinct cultural and historical artifacts and events in this game.

Mechanics

Core Loop

The core loop of the game goes like this:

1. Exploration: The player explores the museum room and investigates various objects, clues, and puzzles to progress through the game.
2. Problem-Solving: The player must use their critical thinking and problem-solving skills to solve puzzles, unlock new areas, and uncover hidden secrets.
3. Stealth: In some restricted areas, the player may encounter enemies and must use stealth to progress through the game.
4. Progression: As the player solves puzzles and evade enemies, they gain new items, and tools that allow them to access new areas and progress through the game.
5. Rewards: The player is rewarded with new story elements, items, and achievements as they progress through the game, which motivates them to continue playing.

6. Repeat: The player repeats the exploration, problem-solving, stealth, and progression loops as they move through different museum rooms and areas, with increasing difficulty and challenges to overcome.

Movement and Actions

1. Walking and Running: The player can move around the museum room by walking or running in different directions.
2. Interacting with Objects: The player can interact with various objects in the museum, such as examining paintings, sculptures, and other artifacts, searching for clues, or manipulating objects to solve puzzles.
3. Collecting Items: The player can collect items such as keys, collectibles, items, and other objects that help them progress through the game.
4. Solving Puzzles: The player must use critical thinking and problem-solving skills to solve puzzles and unlock new areas of the museum.
5. Stealth: In some restricted areas of the museum, the player may encounter enemies and must use stealth.
6. Dialogue: The player can engage in dialogue with non-playable characters in the game, such as museum guides or other visitors, to gather information and progress the storyline.

Levels

In the context of Lost in the Museum, the levels are the different rooms or areas within the museum that the player must explore, solve puzzles, and sneak past enemies to progress through the game. The levels may vary in difficulty, design, and storyline to provide an immersive and enjoyable gameplay experience for the player.

Audio

The sound design is also crucial to creating the game's immersive atmosphere. The game features a haunting musical score that builds tension and creates a sense of foreboding. The game's haunting musical score and sound effects are carefully crafted to create a sense of atmosphere and emotion. The music swells and ebbs to match the player's actions, creating a dynamic and engaging soundtrack.

References

- BBC News, 2018. *Fortnite: Native American headdress removed after criticism*. [Online]
Available at: <https://www.bbc.com/news/technology-46225341>
- Bizzocchi, J. & Tanenbaum, J. G., 2015. Liveness, presence, and the experience of the real in live-action video games. *Games and Culture*, 10(1), pp. 63-84.
- CBC News, 2018. *Red Dead Redemption 2 faces controversy over Native American headdress*. [Online]
Available at: <https://www.cbc.ca/news/indigenous/red-dead-redemption-native-american-headdress-1.4884471>
- Greenfield, P. M. & Cocking, R. R., 1996. *Interacting with video*. s.l.:Ablex Publishing.
- Grodal, T., 2003. *Stories for eye, ear, and muscles: Video games, media, and embodied experiences*. s.l.:Cambridge University Press.
- Hunicke, R., LeBlanc, M. & Zubek, R., 2004. *MDA: A formal approach to game design and game research*. s.l., s.n., pp. 1-5.
- Klimmt, C., 2008. Dimensions and determinants of the enjoyment of playing digital games: A three-level model. *Communication Theory*, 18(3), pp. 292-331.
- Lee, J. & Hammer, J., 2011. *Balancing for Balanced Play: Game Design Principles for Balancing Games*. s.l., s.n., pp. 59-66.
- Nacke, L. E., Grimshaw, M. N. & Lindley, C. A., 2010. More than a feeling: Measurement of sonic user experience and psychophysiology in a first-person shooter game. *Interacting with Computers*, 22(5), pp. 336-343.
- Ryan, R. M., Rigby, C. S. & Przybylski, A., 2006. The motivational pull of video games: A self-determination theory approach. *Motivation and Emotion*, 30(4), pp. 344-360.
- Schell, J., 2008. *The art of game design: a book of lenses*. s.l.:CRC Press.
- Subrahmanyam, K., Greenfield, P. M., Kraut, R. & Gross, E., 2000. The impact of computer use on children's and adolescents' development. *Applied Developmental Psychology*, 21(3), pp. 527-546.
- Zimmerman, E. & Salter, A., 2019. Playing with Appropriation: The Politics of Identity, Exploitation, and Creativity in Video Games. *Games and Culture*, 14(4), pp. 348-367.