

Goliath

Game Design Document

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HIGH CONCEPT

Goliath is a cooperative puzzler for two players, in which players take on complementary disabilities, and must collaborate to solve a series of seemingly insurmountable challenges. By placing players in a co-dependent state, Goliath focuses on creating deeper connections between players, as well as respectfully exploring established assumptions surrounding disabled persons.

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Executive Summary

Goliath is a two-player cooperative multiplayer puzzler for the PC and major consoles, including the Xbox 360 and PlayStation 3. Primarily targeted at high school students and older, *Goliath* follows the story of two hospitalized men as they recount their respective tales, their aspirations, and their fantasies. The format sets a natural precedent for facing adversity, and focuses on disabled persons and their every day interactions with the outside world.

The first portion of this document focuses on user-interactivity documentation, including, but not restricted to a brief technical design overview, graphical, audio, and multiplayer technical requirements, a discussion of in game and out-of-game interfaces and control flow, player controls, cursor behavior and availability states, conversation, navigation, and journal behavior, and additional design topics associated with the ambient environment.

Expanding on the setting, *Goliath* also features three detailed environments, encompassing a park, a cityscape, and a medical institution. Each area focuses on environmental storytelling, and is designed to convey a series of emotions and create an immersive atmosphere. Since one player is effectively incapable of seeing each level or area, set pieces and other objects in the scene are present in order for the guiding player to provide reasonably accurate descriptions and instructions for navigating through each area. Weather and time of day are also addressed here.

A brief discussion on systemic gameplay follows, handling topics such as social interaction in the form of text and voice communication, an overview of the three available mini-games, the concept of exploration, and NPC/mob encounters throughout the course of the game.

Primary gameplay is next addressed, with gameplay in *Goliath* involving each player taking on a complementary disability, requiring both players to collaborate in order to solve a series of seemingly insurmountable challenges. Specifically, one player will lose the ability to see, while retaining control over the character avatar. The other player shares the same bodily avatar, but has no motor control, instead possessing vision. Taking advantage of common hardware found on all of the target platforms, players must use available voice communication features, or text chat over the Internet to collaborate in order to solve sets of navigation and logic puzzles.

To assist players with each puzzle, *Goliath* also features a set of contextual audio cues, as well as a visualizer for the blind player. These audio cues serve to not only advance the story, but also to provide clues as to the layout of the room for the blind player. For example, opening and closing a door will sound slightly different depending on where the player is standing in relation to said door. This will also trigger a corresponding change in the way the sound is translated onto the visualizer, offering the blind player some degree of navigational assistance.

To more deeply immerse players and to highlight the experiences of disabled persons, *Goliath* tells the story of two hospitalized men as they recount their respective tales. By having players live through the everyday struggles and challenges of being disabled, *Goliath* is designed to succeed by combining interesting gameplay with a cathartic story to create a strong overall player experience.

Goliath will also feature a series of artistically drawn cut-scenes, rather than rendered or animated full-motion video. The cut-scenes are presented in a more abstract fashion in order to encourage players to think more about the impact of having a disability, as opposed to having players focus on graphical fidelity.

The document then concludes with a development overview, including marketing towards the target audience, hardware platform analysis, an estimated schedule and budget, a competitive analysis, and a human resources outline, concluding with a risk analysis.

Additional documents relevant to other sections are appended to the end of the document, and listed in numerical order.

Game Mechanics

The following sections contain a brief summary of technical systems in *Goliath*.

Overview

Goliath is designed from the ground up using the latest technological developments. As such, it supports a scalable display resolution, with a maximum resolution of 2880x1800, through a minimum resolution of 1280x720. Display Resolutions greater than or less than these two values are theoretical, though strictly unsupported.

Gameplay graphics are in three dimensions. In addition to standard game-engine support for shadows, shaders, and texture mapping, *Goliath* will primarily take advantage of recent advances in realistic water simulation and environment manipulation (i.e. destructible scenery) to enhance player immersion. Cut-scene graphics are rendered in two dimensions, and are primarily a composition of watercolor/pastel still frames, drawn in sequence, with a corresponding voiceover.

Audio will be handled through a combination of studio-recorded piano pieces for the soundtrack, and edited live-recordings of ambient sounds to provide appropriate audio backdrop. Generic sounds and other sound cues will be created as needed in studio.

Additionally, as *Goliath* is a multiplayer game, a load-balancing, global matchmaking service will be developed in order to pair players together. On consoles, this will be handled through vendor specific (Microsoft/Sony) APIs. On the PC, matchmaking will primarily be handled through geographically distributed servers running the *Goliath* matchmaking software.

Extra Game Interfaces

The following sections describe the basic control flow outside of the game.

Installation

Installation will be handled primarily through distribution method. In the case of consoles, installation will involve copying data from disc to the console hard drive, with the option of partial or complete install. The latter will allow players to forego inserting the disc to play *Goliath*. In the case of the PC, *Goliath* will primarily be distributed through digital means, through which each distributor has their own installation mechanism (i.e. Steam, Desura). For physically purchased copies, installation will be a standard progression of menus, choosing install location, etc.

Main Menu

Players loading into the game (for the first time) will first be presented with an introductory short scene, as well as any legally or contractually obligatory vendor screens (e.g. Source or Unreal Engine). Subsequent launches of *Goliath* will allow this introductory set of screens to be skipped.

At this point, players will be presented with the main menu, including the following selectors: New Game, Quick Join, Load Game, Settings, Credits, and Exit. Options are set in a column on the left side of the screen, with a changing backdrop of scenes from *Goliath*, beginning with the park. Selecting any option causes a flurry of white feathers to fly across the screen before presenting the chosen option.

New Game

Selecting 'New Game' will present players with the option of inviting a private partner, or selecting from the global pool of players via matchmaking. Once an option has been selected, the player (or both players in the former case) will be presented with the introductory cut-scene while the game loads in the background.

Quick Join

Selecting 'Quick Join' presents the player with the option to select their stage preferences, as well as the option to disable joining games that are partially progressed (i.e. incomplete save states). Once the player has selected the matchmaking criteria, the player is placed in the global matchmaking pool.

Load Game

Selecting 'Load Game' will present the player with a sortable list of saved games, first ordered by last played date. Selecting a saved game will also display the name of the original partner, and the name of the most recent partner in the save. Selecting a save to load will present the player with the option to invite the original partner, invite another partner, or find a partner using the global matchmaking pool.

Settings

Selecting 'Settings' will present the player with three submenu options: Gameplay, Controls, Audio, and Display. The 'Gameplay' option addresses in-game options such as the frequency of automatic saving, enabling and disabling subtitles, and so on. The 'Controls' menu allows players to adjust both the keyboard and mouse controls, as well as the gamepad controls if a controller is detected. The 'Audio' option allows players to control different elements of game volume through a series of sliders. The 'Display' option allows players to configure graphics settings.

Gameplay Interface

The following sections describe the primary in-game interface for both players.

Player 1 – Avatar

The player avatar is represented in third-person form, with the perspective from a zoomed out position above and behind the avatar's head. The player in control of the camera will be able to freely rotate the camera around the player avatar in order to view the surroundings.

Player 2 – Visualizer

The player in control of moving the avatar has a restricted camera view. The camera is locked in the forward position at all times (relative to the avatar), and instead of giving traditional vision, the player in control of movement is instead given a visualizer—a two-dimensional (spatial and color) representation of sound.

Objects and Interactivity

Throughout the course of the game, it is possible to interact with certain objects, such as doors, newspaper fliers, and small animals. Objects that have yet to be interacted with are covered in a glowing, white cascade. Subsequent interactions will only outline the object with white lines to signify its presence. As there is no inventory system, players are unable to pick up objects, except in scripted scenes.

Non-Player Characters

Players will encounter a series of non-player characters (NPCs). Important NPCs will have a glowing, white aura surrounding them. If the NPC has a topic to discuss, an additional symbol will appear over their head, and they may also perform a contextually significant action, such as waving or shouting at the player avatar. Unimportant NPCs will have no aura, and will only have passing contextual audio cues if the player bumps into an NPC or performs an otherwise illegal action.

Travel Mechanism

Travel in *Goliath* is strictly progressive throughout each stage. As such, there is no fast travel mechanism. However, the player with unrestricted camera control has an optionally enabled mini-map and compass that appears at the bottom of the screen to guide the player to the next objective. Waypoints may also be set on the mini-map, and an additional crazy-taxi style arrow will pop up as a navigational aid for the camera-controlling player.

Controls

The following section describes control schemes for consoles and computers.

Console Controls

For consistency, console controls in *Goliath* are as similar to other first/third person shooters as possible. For the player controlling the camera, the left stick manipulates the zoom level, while the right stick manipulates the camera direction about the player avatar. For the player controlling the avatar, the left stick manipulates the avatar movement (forwards/backwards/sideways strafe), while the right stick controls the avatar direction (up/down/left/right). A more detailed controller layout may be found in the Technical Design Document.

PC Controls

For consistency, PC controls in *Goliath* are as similar to other first/third person shooters as possible. For the player controlling the camera, the mouse scroll-wheel manipulates the zoom level (as well as W and S), while the actual mouse movement itself will manipulate the camera direction about the player avatar. For the player controlling the avatar, W, A, S, and D, manipulates the avatar movement (forwards/backwards/sideways strafe), while the mouse movement controls the avatar direction (up/down/left/right). A more detailed keyboard and mouse layout may be found in the Technical Design Document.

Cursor Behavior

The following section describes possible cursor states in *Goliath*. The default cursor state in *Goliath* is an invisible cursor. This state is set whenever the game is not in a menu, and during gameplay. When the camera moves, the player cursor turns into a crosshair, which is then manipulated by the mouse on the PC, or using the sticks on a console controller or gamepad.

Ready

The ready state is set whenever an interface is active, but does not require immediate attention. For instance, the ready state is the active state on the main menu screen, or while an in-game interface menu is active. The ready state takes the form of a cursor shaped like a feather.

Action

The action state is set whenever the player may interact with the indicated object. For example, when the crosshair moves over a door, the cursor will morph into the action cursor, which takes the form of the contextually relevant action. In the presented case, the cursor takes the form of an animated door, opening and closing in a loop.

Talk

The talking cursor becomes available whenever the camera-controlling player hovers over a conversation-enabled NPC. The cursor will remain greyed out until the player avatar (as controlled by the other player) moves into range of the NPC, at which point the talk cursor becomes fully opaque. The talk cursor takes the form of an animated conversation bubble.

Examine

The examine cursor is set whenever the player may interact with the indicated object, but the object does not necessarily change states, unlike with the action cursor. For instance, reading a newspaper flier or examining a plaque will trigger the examination cursor, which takes the form of a magnifying glass.

Travel

The travel cursor is available whenever the camera-controlling player enters the map screen. Hovering over the map will turn the cursor into the travel cursor, which takes the form of a small pushpin. Interacting with the map while the cursor is in travel form will drop a small pushpin on the map, creating a waypoint.

Conversation Window

Conversation in *Goliath* takes two forms. The first form is in cut-scenes depicting the hospital room interactions. As such, there is no official conversation “window” though conversation does occur. In the second form, players confronted by NPC extras will merely experience contextual audio cues without interrupting gameplay flow (players may freely move away from such NPCs). NPCs with dedicated conversation options will zoom both player cameras in to conduct a “face to face” conversation (the vision-impaired player will see a heavily blurred face).

Maps and Minimap

The player in control of the camera will have a small, round mini-map displayed at the bottom-center of the screen. This mini-map displays a small portion of the traversed world map, with any undiscovered portions faded out. Etched into the round border of the mini-map is a compass that can either remain fixed, with the mini-map rotating with the player, or rotate about the mini-map, with the actual map remaining fixed.

The player controlling the camera will have access to a toggled world map, which shows all explored areas, and a general outline of undiscovered areas, which is faded out (covered by a rough “fog of war”). As the player avatar moves through the game world, sections of the map will be revealed in a manner similar to many massively multiplayer online games, as opposed to a more gradual progression.

Journal

Available to both players, the journal is a categorical list of objectives, both past and present. The current main objective title is displayed at the very top as an expandable item. Any other secondary objectives will be displayed in smaller text (relative to the main objective) immediately below the main objective. Clicking on any objective will toggle a short description beneath the objective title. Completed objectives will be greyed out below any current primary and secondary objectives. Players may choose to sort the objectives list in order of acquisition, completion, or priority, with an optional toggle separating active and completed objectives.

Additional Design Topics

The following sections cover ambient interactions within *Goliath*.

Voice of the Super-Ego

The primary mechanism for providing hints in *Goliath* is through contextual audio. Moving near an objective or attempting an illegal action triggers a corresponding audio cue. Additionally, text hints may be seen on loading screens, and other various clues may be found as signage across various stages in the game. Sample audio cues include, but are not restricted to the following:

1. "I'm afraid I can't [open/do/see] that."
2. "Hmm, I wonder what that flier says."
3. "I think I hear a siren."
4. "Out of my way!"
5. "Excuse me."
6. "Some fresh air at the park might do me some good."
7. "Maybe I can escape through that alley."

Rest States

Rest states in *Goliath* exist for the two possible player avatars: Paul and Simon. Paul's rest states include scratching his head, stroking his chin, rubbing his face with his hands, and if near a wall or large object, leaning on said wall or object. Simon's rest states includes rocking back and forth on his heels, worriedly looking over his shoulder, and putting his hands on his knees and breathing hard, trying to catch his breath, and checking his watch.

Music

Music in *Goliath* is composed with two pianos in mind. A supporting classical orchestra will provide additional background music, with special themes for each main character: Paul, and Simon. Musical themes associated with Paul reinforce a peaceful and serene feeling, while motifs associated with Simon are more upbeat.

Art and Animation Style

The following sections address the visual styles presented in *Goliath*.

Gameplay

During the course of gameplay, players will encounter various structures and navigational hazards that have a strong emphasis on primary colors. Most structures will take the form of modern, silvery skyscrapers with red, blue, or yellow accents and trim to give a very uniform, clean, even austere appearance. More dilapidated areas will feature increased secondary color usage, with more greens and browns. The general art style is generally closer to an animated film rather than towards realism.

Cutscenes

Cutscenes in *Goliath* are in the form of highly stylized, artistic drawings, in a watercolor or hand-drawn style along a pastel color palette. These scenes are composited from a series of still frames, creating a stop-motion effect. The general art style in these scenes is comparable to traditional manga or anime.

Animations

Lifelike motion and animation are instilled into character models by means of motion capture by real actors, and translated into game animation. A wide variety of general animations will be captured, as well as a set of character-specific animations to address the unique disabilities associated with Paul and Simon.

Setting and Main Features

The next section covers the game setting and main backstory features.

Time Period

Goliath takes place during the early 21st Century, during an alternate history where the United States never emerged from the recession that occurred at the turn of the century. Saddled with difficult economic times, the United States instead turned inwards as it grappled with one internal crisis after another, struggling to restore a floundering economy.

History

In the early days of the recession, many small businesses were driven out of business as their customers soon tightened their belts, cutting back on spending. In just a few years, the only companies remaining were large corporations, controlling

nearly every aspect of life. Those at the very top, CEOs and executives, live lavish and opulent lifestyles. Those employed by the large corporations are fortunate enough to receive stable salaries and benefits, leaving the rest to scavenge from the scraps. With nothing to lose, and poor job prospects, many have turned towards a life of crime to eke out a living beneath the silvery skyscrapers of the rich.

Geography

Goliath takes place in a city strongly resembling a modern-day New York City, specifically in the island of Manhattan. The city is undergoing a significant series of modernization projects, as powerful corporations construct monumental skyscrapers symbolizing their prosperity and wealth. Meanwhile, outside of the financial district, the city is falling into disrepair. Entire sections of the city are slowly turning into a sort of urban jungle.

Locations

The following subsections describe traversable locations in *Goliath*.

The City

Events in *Goliath* primarily take place within the city. As previously noted, the city is roughly analogous to the island of Manhattan, New York City. Within the areas of the game designated as “city” segments, there are two neighborhoods of note. The first, is the Financial District, similar to *Wall Street*, and is the center of corporate power and wealth. Gleaming skyscrapers dominate this first area of the city, and clean, straight avenues run down the length of the neighborhood. The Financial District is flanked by heavy construction on both sides as companies construct new high-rise offices. The Financial District has a very awe-inspiring factor, conveying a sense of overwhelming wealth and power.

The second neighborhood is dubbed ‘Jefferson Heights’ and is analogous to the neighborhood of ‘Washington Heights’ (bordering Inwood). This section is incredibly poor and dilapidated. As the player moves farther north (away from the Financial District), the small, squat buildings begin resembling a sort of shantytown, and graffiti increases in frequency and density. Garbage and litter also line the streets, with the homeless clustering around barrel fires in alleyways. Jefferson Heights conveys strong feelings of chaos, in contrast to the Financial District.

Calvary Park

Sandwiched between the Financial District and Jefferson Heights is Calvary Park. Very similar to Manhattan’s Central Park, Calvary Park is a huge public space filled with grassy fields, paved and unpaved trails. A small man-made lake resides at the center of the space. Within Calvary Park, there are two distinct locations: Southgate and Lakeside, named after each location respectively. Southgate is of

course, by the southern gate, opening out towards the Financial District, just a few blocks away. This area is filled with many tourists, businessmen, and other people going about their everyday affairs. The primary architectural feature is a massive wrought-iron gate with two huge lion statues flanking the entrance to Calvary Park.

The second location, Lakeside, is a comparatively quieter location overlooking the manmade lake at the center of Calvary Park. Reached by walking along the paved or unpaved paths, Lakeside is an area filled with trees and benches, secluded away from the noise of the city. Ducks and pigeons mingle freely with people here, and many people can be seen feeding the fowl, despite signs posted everywhere vigorously warning against this exact behavior. Lakeside is meant to convey feelings of peace and tranquility, isolated from the rest of the city.

Marah Medical Research Institute

The third and final location in *Goliath* is the 'Marah Medical Research Institute' within the neighborhood of Jefferson Heights. Constructed within the Jefferson Heights neighborhood as an attempt to gentrify the area, the Institute operates in a manner very similar to the National Institutes of Health—essentially a series of scientific research laboratories, with a special needs hospital serving those with disabilities or rare and difficult to treat afflictions. There are two areas within the research institute. Only one area, the Hospital Entrance is accessible by the character avatars. The other area, the Hospital Room, is only seen in cut-scenes.

The Hospital Entrance resembles a typical emergency room reception, with chairs along one wall, a long, poorly staffed reception desk at the end of the room, and large double doors set in the walls. Potted plants are placed at regular intervals to break up the room into smaller sections. The institute is intended to convey an image of sterility and cleanliness, with feelings of being trapped in a maze of sorts.

The Hospital Room is the room shared by Paul and Simon in cut-scenes. A long window runs the length of the room on Paul's side, with a television in the corner. The privacy curtain, when drawn, obscures the television from Simon. In Simon's corner, there is another small, potted plant, hiding a small array of electrical plugs and beeping machinery. Set into the window is an air-conditioning unit. The door is evenly spaced in the wall facing the two beds, with a glowing 'EXIT' sign screwed in above it.

Weather

As *Goliath* takes place over a short period of time, the weather in *Goliath* is relatively static. During the gameplay segments, the temperature is brisk and the weather is sunny, with most people wearing jackets and windbreakers. Cut-scenes also take place with sunny weather outdoors. The final scene takes place in a more overcast setting to provide additional backdrop for the narrative content.

Time of Day

As a parallel storytelling progression, *Goliath* takes place during two timeframes: late afternoon into early evening. The early afternoon involves brilliant sunlight aligned perfectly with the grid of avenues and streets in the city, forming a sort of Manhattanhenge effect.¹ This has the gameplay effect of leaving streets brightly illuminated, with shadows confined to the cross streets and alleys of the Financial District. The alignment of the sun also contributes extensively to the gleaming skyscraper effect. As the player moves into Jefferson Heights during later segments of the game, the daylight begins to shift into early evening.

The evening segments see the streetlamps come to life, and with the setting sun very low in the sky, nearly everything casts extremely long, dark shadows. This creates a sort of creepy ambience while the player traverses Jefferson Heights on their way to the medical institute. The burning barrels for instance, contributes to a spooky, flickering shadow effect. The primary gameplay impact is to add to the dark atmosphere cast in Jefferson Heights.

Cutscenes for the most part (with the exception of the final scene) take place during the daytime over the course of a few days. The primary gameplay contribution is to illuminate the hospital room, allowing players to clearly see the various items placed throughout the room. The final cutscene takes place during an overcast afternoon to add to the gloomy atmosphere.

Systemic Gameplay

This section addresses general gameplay and player interaction in *Goliath*.

Social Interaction

As *Goliath* is a cooperative game for two players, social interaction is handled in a variety of ways. The first is text communication, in which players may type back and forth to each other in a chat box. Additionally, messages can be multicast to other players in the area for general discussion or help purposes.

The next method of social interaction is through voice communication. This will be the primary mechanism for communication, allowing two players in the same session to pass information to each other to progress through each mission.

The third and final form of communication allows players to leave messages at specially designated hubs (e.g. newspaper stands). Messages are visible for up to one week for all players that visit the same hub, as a form of meta-communication.

¹ <http://en.wikipedia.org/wiki/Manhattanhenge>

Mini-Games

Three mini-games may be found in *Goliath*. The first is a Stock Market Trading game. Players entering the Stock Exchange Trading Floor may take over an unattended computer terminal and play with the Stock Market Simulation Software, allowing players to “buy” and “sell” stock over a short period of simulated time. The resultant score is recorded onto the global leaderboards.

Feeding the Pigeons and Ducks is the second of three mini-games. While at the park, Paul has the option to crumble some bread into breadcrumbs and feed the fowl gathered together in Lakeside. While not strictly a score or objective based mini-game, the main goal is to gather as many birds together as possible.

The third and final mini-game is a graffiti-spraying mini-game featuring Simon. While passing through Jefferson Heights, players will have the option of picking up paint cans scattered about the area to make their own mark on the walls.

Exploration

As *Goliath* is an exploration-centric game, bordering on sandbox in some respects, exploring areas off the beaten path will reward the player with additional expository audio or imagery. Segments featuring Paul lead to additional audio explaining more about his extremely successful company and philanthropic affairs, delivered in the form of radio broadcasts, fliers and advertisements, and NPC chatter. Segments featuring Simon lead to additional audio detailing the hardships he encountered during the latest economic slump, as he recognizes brands or items he once owned, but can no longer afford.

Encounters

Encounters (“mobs”) in *Goliath* are categorized into three types, arranged by location. NPCs found in the Financial District are primarily businessmen and women and the wealthy. Many of them act with respect and deference towards Paul, given his elevated status. However, they react angrily towards Simon, as they see him as nothing more than street scum.

The second set of NPCs is a more generalized crowd milling about Calvary Park. Most NPCs are moving towards a pre-determined destination. Collisions with these NPCs trigger hostile audio cues, and moving through the crowd is a slow, but steady process for Paul. Simon must take care to avoid the police officers on patrol.

The final set of NPCs is found in Jefferson Heights. These NPCs are primarily gangsters, hobos, the homeless, and more police officers. All of these NPCs are confrontational towards Simon—outright confrontation leads to a chase sequence in which Simon must break line of sight to escape. Paul must take care to navigate near police officers to avoid a mugging by unsavory types.

Character Descriptions

This section contains character profiles for the two protagonists: Paul and Simon.

Paul

An only child, Paul is a 76 year old man from the city, born wealthy and blind, and through a combination of extremely hard work and luck, is now among the wealthiest individuals in America, a modern day Carnegie or Rockefeller of sorts. He currently resides in a small apartment overlooking Calvary Park, bordering the Financial District, where he works as a venture capitalist and stock market investor. Paul has a remarkable knack for predicting the future, first investing in agriculture, then oil, and then the technology sector in the late '90s, cashing out each time just before the market collapsed. By this time, an aging Paul (in poor health, suffering from cancer) now seeks to cure his blindness.

Paul is a white male, standing approximately 5'8" and weighs approximately 150 pounds. Physical characteristics include green eyes, brown (greying) hair, and dark sunglasses perched on his long face and nose to hide his blindness. His preferred form of clothing is a navy-blue pinstripe suit with a matching colored fedora. In outdoor scenes, Paul also wears a dark grey trench coat as a throwback to an older era in American history.

Born into a wealthy household, Paul was raised to be exceedingly proper and polite. He frequently apologizes for even the slightest of mistakes, and makes a habit of inquiring about others. Should the subject of his blindness arise, he is unfazed and quite open about the subject. Educated at the best schools money and influence can buy, Paul is counted among the intellectual elite, though he remains very humble and polite about his status, and is well liked by all. Secretly, Paul is disgusted with others of the same social standing, seeing them as parasites after his wealth and power.

Paul's short-term goals are primarily in battling cancer, finding a cure for blindness, as well as finding a successor who can take over the day-to-day management of his company. His long-term goals include improving the living standards of the poor, mostly through charitable philanthropy. When not pursuing these goals, Paul is typically found taking solitary walks at Calvary Park.

Simon

Born into a family of five, Simon is the youngest of three siblings, leaving him with no inheritance to speak of. At age 37, Simon never completed high school, dropping out at age 16 during the early '80s economic slump to find a job to help support his family while his elder siblings attended college. Despite working extremely hard, Simon ranks among the poorest of Americans. Having fallen out of

contact with his family, by this point, Simon now lives on the street, working as a petty thief on good days, street beggar on rainy days--his dreams of opening a coffee shop, shattered by the latest economic downturn.

Simon is a malnourished, white male, born to Eastern European immigrants escaping the Iron Curtain. Standing 5'4" and weighing less than 130 pounds, his physical characteristics include brown eyes and dirty brown hair. While out on the streets, Simon wears a grey, woolen, knitted cap, and a collection of rags assembled from an overcoat, a tweed vest, denim jeans with tears and holes, and old black boots. He also wears an old nylon backpack that looks as if it's been to the dump and back a few times.

In contrast to Paul's proper and polite upbringing, and logical approach to situations, Simon is vigorously emotional, acting more on instinct and gut feeling than rational thought. He is prone to emotional outbursts, and his mouth often works faster than his brain. A particularly distinct speech pattern involves an excessive amount of swearing. On top of this, Simon is also a pathological liar, often piecing together elaborate cover stories on the spot, as he is ashamed of being a petty thief, and would much prefer others not discover this particular fact. When meeting Paul for the first time, he also lies about being crippled from birth, though in reality, Simon has only been crippled since the car accident that landed him in the hospital in the first place.

Simon's short-term goals involve finding a warm place to sleep, and enough food to last him through the next six hours. His long-term goal of opening a coffee shop seems indefinitely on hold, though unbeknownst to him, his prospects pick up when he meets Paul in the hospital room...

Narrative and Gameplay by Scene (Location)

This section is a list of story and gameplay by scene in order of play-through. Note that while players are almost immediately aware that Simon has attempted to pickpocket Paul, the two protagonists are not immediately aware that they are connected, or that they know each other at all prior to their sharing a hospital room.

Scene 1 – Paul Among the Flock

This scene is chronologically and narratively first in the sequence.

Narrative

Goliath opens in the midst of a hurriedly assembled press conference at the Stock Exchange. The time is 3:30pm, with only a half hour remaining before the closing bell. Paul is seated just beside the head of the conference table, where his spokesperson is about to announce that Paul is terminally ill, and has only a few

weeks left to live. He turns to Paul to confirm, who nods in affirmation, despite the risks to his company stock price. The spokesperson delivers the prepared speech, after which in typical press conference fashion, cameras begin flashing, reporters begin crowding the podium asking questions, and general chaos ensues. During the chaos, Paul takes the opportunity to grab his small bag and slip out the back door. On exiting the press conference, Paul navigates through the complicated corridors that snake through the underbelly of the Stock Exchange.

Emerging from a small side door and into a brilliantly illuminated, but crisp, autumn day, the imposing Corinthian columns of the main Stock Exchange entrance can be seen off to the side. Noting the extremely heavy traffic that has transformed Wall Street into a parking lot, Paul decides to walk the few miles to Calvary Park, as the route is mostly flat, and pedestrian friendly. While walking, Paul is bombarded by the sounds of a city brimming with life, and he muses over how he cannot see all the busy sights, and despite the millions he's poured into medical research, he most likely won't have the chance to see the stunning glow of the sun rising and setting in perfect alignment with the city streets before he passes away.

As Paul approaches Calvary Park, the crowds thicken with city residents out for their daily exercise, businessmen jabbering away on their phones after a busy trading day, schoolchildren on their way home, tourists snapping pictures one after another, and other various denizens inhabiting the city. Paul's pace slows considerably as he slowly works his way through the crowded avenues and cross streets. Just a block away from the gates of Calvary Park, while crossing the street, Paul is jostled by a man wearing a hoodie, and evidently moving very quickly. As he passes by the man, Paul suddenly feels his bag being ripped from his hands. Turning quickly, Paul quickly realizes to give chase would be futile, his blindness becoming an overwhelming impediment in that regard.

After flagging down a police officer, Paul decides to continue to Calvary Park. Sitting down at his favorite bench, Paul laughs as he realizes that his stolen bag only contained a peanut butter sandwich, and a small bag of breadcrumbs he intended to feed to the pigeons. Turning to a nearby street vendor, Paul purchases some roast chestnuts and a hot dog. Crumbling up the bun, Paul tosses the bits and pieces to the pigeons as a slow breeze picks up, ruffling his jacket and hair. The camera slowly pans out onto the afternoon city skyline.

The narrative then transitions to the first hospital scene – “Don't Panic”.

Gameplay

Gameplay during this first scene is primarily an introduction and tutorial to cooperative, but disjoint perspectives. Players begin in the conference room. The movement-impaired player's camera will begin as a blurry mess, before resolving into focus. The blind player's camera will begin as a blurry mess before fading into a visualizer. The first player hears dialogue from the spokesperson explaining that he

needs to guide his partner to the door by looking around and telling the other player which direction to walk. The other player hears instructions from the spokesperson explaining that they will need to await instructions from the camera-controlling player. Once both players understand the communication system, the players must next work together to navigate the maze segment.

The maze zone is primarily an exercise in having one player provide directions in turning left and right, as well as moving forwards. This zone is free of obstacles, and painted arrows direct the camera-controlling player in the appropriate direction. Once the players reach the door, the concept of interacting with the game world is introduced through the form of a door. The camera-controlling player needs to direct the movement-controlling player to face the door and press the interaction key to open the door.

Once players exit the Stock Exchange basement, the player minimap, map, and compass become available, with the voice of the super-ego taking over with monologue audio hinting to the camera-controlling player of the purpose of the three new interface items. The two players must use their new tools to navigate the crowded streets of the Financial District, heading towards Southgate. This is essentially a straight shot, with the primary challenge being the crowds, and timing Paul's movement with the crosswalk signals. The segment concludes when the player reaches Southgate, in Calvary Park.

Scene 2 – Simon Fleeing the Authorities

This scene is chronologically fourth in sequence, but second in narrative.

Narrative

This chapter begins in medias res, with Simon having burst into an alleyway. He stands in the shadows while two police officers walk the beat. He hears his description blaring over the radio dispatch, and shrinks further into the dimly lit alley, stumbling over a small can. The small noise attracts the attention of two large dogs. A low growl emanates from both dogs as they stare at the bag Simon is carrying loosely in his hands. Simon unsuccessfully attempts to quiet the dogs as he furiously gestures with his hands. The dogs instead begin barking very loudly. One dog makes a jump for the bag. After a brief, but inevitable tug-of-war, a loud ripping sound cuts through the air as the bag splits apart.

The loud cries of two policemen interrupt the brief interlude between angry dog and angry thief. In a panic, Simon takes off running down the alley, with two policemen in hot pursuit. Bursting out the other end of the alley and onto Broadway. It's the middle of rush hour and the street is absolutely packed. Paying no heed whatsoever to other pedestrians, Simon barrels straight down the middle, pushing and shoving where appropriate. Rounding the corner, Simon trips and crashes through an open air fruit stand outside a small grocery mart, spilling

bananas, berries, apples and oranges, and other fruit all across the street. Avoiding the angry shouting of the owner, Simon makes a mad dash for the subway entrance, hoping to lose his pursuers in the crowd.

Simon breaks line of sight with the police officers, and enters the subway station unnoticed. Mostly blending in with other rush hour riders, Simon takes great care to avoid the various security guards and transit police, eventually making it onto the platform for the train headed Uptown while remaining inconspicuous and undetected. Despite maintaining a façade of innocence, the two police officers from before spot Simon waiting by the end of the platform just as the train arrives. The police shout out as Simon hurriedly boards the train—two police officers in hot pursuit. They quickly radio for backup as they advance through the train, car by car.

As the police officers advance, the train lurches and picks up speed. The operator announces that the current train has been converted to an express train, skipping the next two stops. Visibly panicking, Simon moves to the last carriage in the train. As the police officers are about to enter the final subway car, the train arrives at the platform, and Simon surges out the door and up the escalators.

Charging through the turnstiles, Simon emerges out onto a dusky Uptown street. Turning north, Simon passes through areas marred with graffiti and litter. Not even thinking to check both ways, he starts to cross the street. A large horn blares as rubber screeches on asphalt as Simon is lifted and sent hurtling through the air before blacking out as the sound of sirens wail in the distance.

The scene then transitions to the second cinematic – “The Coffee Shop”.

Gameplay

This segment introduces players to Simon and his abilities. Simon begins in the shadows of the alleyway, where Simon attracts the attention of the two dogs. The player controlling Simon’s physical movements is given an objective to wave at the dogs, thereby attracting their attention. Additional popup text indicates that this ability may be used to create distractions later on in the game. As guided by the camera-controlling player, the movement-controlling player is then tasked with mastering the running mechanic by running straight down the alleyway. Emerging out the other end, the second segment begins in the street.

The second segment of Scene 2 begins with an introduction to tackling. A flashing prompt indicates to the movement-controlling player that they can have Simon perform a running tackle to knock people out of the way while sprinting. As guided by the camera-controlling player, the movement-controlling player must have Simon tackle his way through the thick crowds to enter the subway station, beginning the third segment of the scene, in the subway tunnels.

The third segment begins on the subway platform, where the two players are introduced to the concept of blending. The camera-controlling player is tasked with identifying and guiding the player towards a group of grungy homeless near the end of the platform. When standing near groups of people, Simon has a chance to evade detection by police, with varying results depending on the similarity of clothing and number of people in the crowd.

After a scripted event in which the police spot Simon trying to blend in, Simon jumps on the train, and the two players must combine the skills acquired over the course of this scene to alternately avoid attracting attention by blending, and tackling their way to the end of the train, before escaping out the door and up the escalators into Jefferson Heights.

Scene 3 – On the Road to the Institute

This scene is third, both chronologically and in the narrative.

Narrative

As Paul is getting ready to leave Calvary Park, his phone buzzes several times in quick succession with voicemail and text messages. Paul decides to check his text messages first, as they're usually shorter. The only text message is sponsored spam advertising about extra cheap vacation getaways, which he promptly deletes. Paul then checks his voicemail. (Navigating his phone while blind)

First is Paul's spokesperson, who summarizes the events of the day following the press conference. The share price of his company has tumbled, but not as significantly as expected. His spokesperson reminds him that there is currently no plan of succession in place, and strongly suggests that he nominate, or even directly appoint a successor before any further damage is done.

Second is a courtesy message from the city police department, informing Paul that they found the shredded remains of his bag in an alleyway not far from the site of his pickpocketing. They have two officers in hot pursuit of the suspected thief. In the meantime, what's left of his bag can be recovered from the police station north of the Stock Exchange.

Third is a message from his personal physician, informing Paul that there were some abnormal test results with his blood work, and that he needs to visit the Marah Medical Institute to redo the tests, just to be safe, and to expect an overnight stay, for observation regarding his terminal condition.

With a deep sigh, Paul hangs his head in defeat. Taking one last loop around the park, Paul leaves Calvary Park from a different exit (than when he entered) to avoid the inevitable tourist exodus heading towards Broadway. Passing through a small construction zone, Paul picks up on the clatter of sledgehammers,

jackhammers, and other hammers. The general sound of construction floats down from above as Paul carefully navigates through a minefield of orange safety cones and yellow caution tape.

Calling ahead to his chauffeur, Paul arranges to meet a few blocks away from the main entrance to the Stock Exchange. After meeting up with his limousine, Paul pays a visit to the city police department, where he retrieves the slobber-drenched remains of his bag before heading out to the Marah Medical Institute for the night. The chapter concludes with Paul standing outside the hospital as the camera pans out onto the evening city skyline.

The story then flows into the third hospital cinematic – “Simon Says”.

Gameplay

Scene 3 gameplay begins with a one-off mini-game in which the camera-controlling player must instruct the blind-player in the use of Paul’s phone. Together, they must play through all four messages and listen to the recorded speech. Optionally, the players may also review the spam text messages, before placing a call to his chauffeur. Once these objectives have been completed, the two players must navigate to the pickup location, beginning the second scene segment.

The two players must work together to navigate Paul through a series of construction zones. The camera-controlling player must take care to watch for falling debris and instructions by the construction crews along the avenue, while the player controlling Paul needs to move in sync with the construction crew signals. For the most part, this is a straightforward direction-navigation puzzle, mostly filled with obstacles placed in the way.

Scene 4 – The Penitent Thief

This scene is chronologically second, but fourth in narrative.

Narrative

Simon walks Paul through the process of selecting an unsuspecting victim. First, the victim has to be distracted. To ensure a safe getaway, Simon explains that he usually works in thick crowds, since it’s easier to lift wallets and small purses that way. Over the years, Simon just developed the habit of pickpocketing people, to the point where it became second nature, rather than having to work at it. It was something Simon was pretty good at.

Simon then walks through how he had just had a productive thieving session at Calvary Park. Beginning at the main gates to Calvary Park, Simon navigates the crowd, lifting purses and picking pockets of wallets. Sometimes he’s caught, causing a small disturbance, and occasionally a larger altercation. Through all this, he

manages to avoid detection by the police, or by Paul. Spotting a distracted Paul crossing the street, grabbing the bag was a reactive instinct over anything else. Normally Simon doesn't even go for the larger bags. Simon thought it was a little odd at the time that there was no protest, or any attempt to give chase.

With bag in hand, and a few staring bystanders, Simon needed to make a quick escape without attracting too much attention by running. The bag was pretty heavy—Simon wondered what was in it. At first Simon thought it was a computer, since Paul was dressed in a nice suit, though that was quickly disproved when the bag proved less than rigid, and not quite heavy enough for an electronic device. Simon's inner curiosity soon gets the better of him. Ducking into an alleyway a few blocks from the park and the Stock Exchange, Simon hears the growl of two dogs...

The scene then turns to the fourth cinematic – “The Last Will and Testament”.

Gameplay

While Simon delivers his voiceover monologue, the player controlling the camera must scan the crowd for an unsuspecting target (i.e. Paul). Once the camera-controlling player has located Paul, he must direct the player controlling Simon towards Paul. As Simon's model passes Paul, the player controlling Simon is prompted with the interact button to grab Paul's nylon backpack. Once Simon successfully steals the nylon backpack, he must escape the scene without attracting too much attention.

This begins the second portion of the segment, in which Simon must use his blending ability to merge with the surrounding crowds and avoid police officers patrolling the area as Simon makes his way south, through the Financial District. As he moves deeper into the Financial District, the crowds thin into mostly businessmen and women, where Simon's scruffy appearance begins to stand out more and more. Should Simon be identified at any time, a third segment portion immediately escalates (with the potential to downgrade back to the second segment) in which Simon must sprint and tackle to escape police officers chasing him. If the players manage to break line of sight and blend in with the crowds once again, the activity level downgrades back to the level of the second segment. Gameplay during the fourth scene concludes when Simon successfully reaches the alleyway at the far end of the Financial District.

Scene 5 – Twenty-Eight Days Later

This is occurs both last in the narrative, and chronologically.

Narrative

Four weeks later, Simon finds himself standing outside the courthouse with a bewildered look on his face. Not only had all charges been dropped, the police

department, and the judge, both apologized for inconveniencing him. The strangest day of Simon's life would soon become even stranger.

It was a neatly handwritten letter addressed to Simon, from Paul, asking to meet if at all convenient. This was the same Paul who had disappeared four weeks ago in the middle of the night. Simon thought it was a little strange to be meeting Paul at the Trinity Church cemetery. Looking down at the letter again, Paul reads the instructions more carefully as he steps up to what appears to be a new marble statue of a young man leaning on a cane. Taped to the small, inscribed plaque was a waterproof envelope—the name Simon is neatly written across the front. Inside it, Simon discovers a letter outlining that by the time Simon reads this, Paul will be gone, but he hopes that Simon will put his newfound inheritance to good use. Horrified, Simon looks down and reads the inscription on the plaque: “In loving memory of Paul ...” before the credits roll.

Gameplay

Gameplay during the final segment begins with Simon at the cemetery. Using the date and alphabetical ordering of the burial plots, the two players controlling Simon must work out where Paul has been buried.

Cutscenes

This section is a list of hospital cinematics in order of encounter.

Cutscene 1 – Don't Panic

The game then transitions to the present, where Paul and Simon are in their shared room. Paul is hooked up to a variety of monitoring equipment, while Simon suddenly wakes up, handcuffed to his gurney. Paul introduces himself to Simon as Simon thrashes around. They've both been assigned to the same hospital room, as they're both disabled patients. Simon exclaims that he isn't disabled, but then slowly realizes something isn't quite right when he tries to get up. Looking downward, he discovers his legs have been amputated.

After an initial amount of panic, which raises a curious look from Paul, Simon calls out to the orderly in the hall. A few moments later, the orderly returns with the policeman who attempted to arrest Simon earlier. The policeman reads Simon his rights, and informs him that he has been remanded into the custody of the *Marah Medical Institute* awaiting a new set of prosthetics, and that the trial date has been set for four weeks time. After signing the bail bond, the officer awkwardly stumbles through the fact that Simon is technically free to go, but given his current condition, Simon is unable to actually go anywhere. With an apologetic look, the policeman leaves Paul and Simon.

A screenplay and spreadsheet for Cutscene 1 is attached to the end of this document, and is available under the “Additional Documents” section.

Cutscene 2 – The Coffee Shop

Returning to the present ... Simon asks what’s wrong with Paul, discovering that he is not only terminally ill, but also blind from birth. Unsure of what to say, and ashamed of his “profession,” Simon lies to Paul and says he works as a street cleaner since he couldn’t find a job doing anything else. Both of them are quiet for a bit, before Paul asks Simon to describe the sun setting, explaining how it’s a personal dream. Simon in turn reveals his dream of starting his own business, but instead fell on hard times.

When questioned about what type of business, Simon goes into more detail about how he always wanted to start a small coffee shop combined with a bookstore on the side ... or perhaps the reverse. As much as Simon wants to pathologically lie about this as well, he ends up feeling rather guilt tripped about the terminally ill part of Paul. Simon next asks Paul what he does for a living.

Paul is silent for a bit, but then responds about how he inherited vast sums of money, which he spends on medical research in the hopes of finding a cure for his terminally ill condition, as well as his blindness. He then goes into the events of Chapter 1, and how news of his impending death have brought into question the future of his company and his wealth. Paul then thinks back to earlier, when he was still at the park, after he finished feeding the pigeons...

Cutscene 3 – Simon Says

Returning to the present ... after hearing more of Paul’s story, Simon decides to own up to Paul. At this point, Simon reveals he wasn’t being entirely honest, and explains how he is really a petty thief. However, those days are now most likely behind him as he is now apparently a double amputee. Not only that, but Simon is also in police custody, awaiting trial. Paul reveals that he knew the entire time, but wanted to see if Simon could come clean of his own accord.

Paul informs Simon that the policeman explained everything to Paul while Simon was unconscious and sedated. Even before then though, Paul put two and two together after he heard the orderly talking about the cross-city chase that began with two dogs and a man with a bag in an alleyway. Paul then asks Simon about whether or not he actually knew what the contents of his bag were.

Simon sheepishly denies all knowledge and apologizes for profiling Paul on the street. Had he known Paul was a terminally ill, aged man, Simon would never have attempted to rob Paul. Paul retorts by berating Simon for stealing anything from anyone, or even having the thought of stealing from someone. Ever the curious man, Paul asks why Simon chose Paul as a target, leading into the next chapter...

Cutscene 4 – The Last Will and Testament

Clearly amused by the story, Paul thinks for a moment, before pulling out a small notepad and a pen. He calls in the orderly, and begins to write. Confused by all this, Simon just stares. Paul quickly finishes, and asks the orderly to sign an affidavit affirming all that he witnessed just now. The orderly questions Paul, who responds with a smile and a question regarding why everyone always questions him. With that complete, Paul rips the sheets of paper out of his notebook, handing them to the orderly, with instructions to deliver the notes to his personal assistant.

Simon questions Paul about what is going on, but Paul gives a cryptic response involving an appropriate time in the near future to explain. Accepting the answer for now, and with little else to do, Simon lies back down and falls asleep.

Simon wakes up in the middle of the night to a chorus of beeps as the machinery connected to Paul begins flashing dangerously. Simon calls out to Paul, but there is no response. Several nurses burst into the room, as a small nexus of activity forms around and surrounds Paul. Soon, the entire gurney is wheeled out of the room, leaving a worried Simon behind.

Database Functions

Database functions on *Goliath* servers are mainly to facilitate smooth player matchmaking. As such, the server software will query the player client for information regarding player progress and available hardware (e.g. microphone), and attempt to pair two players who are looking for to complete the same narrative stage. Outside of basic matchmaking information collected at runtime, the database stores no other permanent records.

Target Audience

Goliath is primarily intended for players of all ages, though the subject matter revolving around disabilities makes *Goliath* especially suitable for players entering high school or university. From an educational standpoint, *Goliath* is intended to demonstrate that disabled persons are normal people, just like everybody else. The general feel of the game is meant to allow players to experience a disability firsthand, and having players work their way through each challenge.

Goliath is designed to highlight player collaboration. Some portions of the game become exceedingly difficult, if not impossible to complete solo. This lends well to players interested in cooperative play to analytically solve a series of problems, as opposed to players seeking a more massively multiplayer experience.

Hardware Platforms

Goliath is designed for platforms with inherent networking capabilities. This includes, but is not limited to the PC, targeting the Steam platform, the Xbox and PlayStation consoles, as well as smartphones, tablets, and other mobile devices running the iOS and Android operating systems.

There are several distinct advantages to the PC. Among other things, an approximate majority of users have access to a microphone, which would more easily facilitate communication between the blind player and the moving player.² Additionally, the availability of a keyboard provides a reasonable text-only fallback in the absence of a microphone.

The Xbox and PlayStation consoles are strong candidates for development for similar reasons. Established console players already own microphones, and frequently play in online settings. The availability of matchmaking services enables an enjoyable experience by quickly connecting players in similar regions, and by allowing players to easily find new partners to play with.

The iOS and Android operating systems also share a similar aspect with consoles through the available matchmaking services. For instance, integrating the iOS Game Center with *Goliath* would provide another easy avenue for matchmaking. Many devices now offer touch screens, gyroscopes, and vibration motors, which would open up new avenues for disability pairings—for instance, tactile or mechanical feedback on encountering an obstacle. This is especially relevant for actual disabled persons attempting to play *Goliath*.

Estimated Schedule and Budget

Intended as a smaller scope project, *Goliath* will be developed over the course of two years, in an iterative fashion according to a series of phases, organized in the following manner:

1. Pre-Production and Prototype
2. Production and Development
 - First-Playable
 - Alpha
 - Beta
3. Gold Master / Release to Manufacturing

The first major phase in *Goliath* is pre-production, during which initial documentation is compiled. During this phase, pitch, proposal, high-concept

² Per the Steam Hardware Survey (<http://store.steampowered.com/hwsurvey>)

document, game design and technical design documents are all written. Specific modifications to each document will be tailored for certain departments (e.g. marketing). Additionally, this phase will also encompass a small degree of location scouting for suitable areas to base levels upon, as well as the creation of concept art. The pre-production phase is expected to take approximately two months.

The pre-production phase flows into the development of a prototype. This prototype phase is intended to evaluate the technical and design aspects required in *Goliath*. Addressing the technical aspect first, implementing a basic equalizer for the blind player, testing the control scheme in which two players share one body, and handling network programming are the primary avenues of importance regarding the game engine. Additionally, the prototype serves to guide future design decisions. In short, “is this game fun?” This process is expected to take approximately four months under the staffing requirements detailed further on.

Moving forward from the prototype and entering production, *Goliath* follows a three-milestone schedule, organized into a First-Playable, an Alpha, and a Beta. The First-Playable will comprise a playable game demonstrating the full range of game mechanics, and a rough skeleton for the overall game structure. This stage is expected to flow from the prototype, taking approximately an additional six months (twelve months elapsed) with current staffing requirements.

Next is the Alpha stage, during which *Goliath* is feature complete, followed by a general code freeze, entering Beta. Art and sound are incomplete at this point in time. However, during this stage, core features and level designs are finalized. *Goliath* transitions from Alpha to Beta after another eight months. Entering Beta, all features and assets are complete, and primary focus is diverted to fixing bugs and other problems related to shipping the game. *Goliath* remains in beta for two months, at which point the game is shipped. At this point, twenty-two months have elapsed, leaving a two-month buffer as a contingency plan for unanticipated delays.

Competitive Analysis

Goliath follows a strategy very similar to that of *Valve* titles such as the *Portal* and *Left 4 Dead* series. Gameplay in these titles follows a semi-linear path through a map or puzzle, while creating an immersive atmosphere through creative use of contextual sound, carefully placed posters and other art assets, and clear mission/level/stage objectives. Unlike these titles though, *Goliath* focuses on highlighting a set of issues surrounding disabilities, rather than playing into a set of tropes or classic narratives involving zombies and other post-apocalyptic settings. Traditionally, *Valve* titles have sold extremely well, and *Goliath* shares a similar gameplay and environment concept, while also approaching a unique disability premise from the unexpected angle of shared perspectives.

Goliath uses a narrative style much closer to that found in *Mirror's Edge*, where gameplay is interspersed with short cut-scenes containing dialogue or some form of narrative exposition. Unlike the anime-style scenes in *Mirror's Edge* though, cut-scenes *Goliath* are much more abstract, both in color palette and style. This is potentially even comparable to older *Disney* short films, in the sense that *Goliath* is trying to do more with less. From this perspective, both *Mirror's Edge* and *Disney* animated shorts have sold extremely well, and *Goliath* is attempting to replicate this level of narrative success in sections of the game that require cut-scenes for scene transitions (e.g. dialogue) or while the game is loading in the background.

Audio also plays a key part in *Goliath*, as it becomes one of the few senses common to both players. The best game inspiration again comes from the *Left 4 Dead* series, in which certain actions play sounds differently, depending on relative location or context. For instance, the presence of different Special Infected and players' progress through a level will trigger specific audio cues. From a narrative standpoint, certain audio in *Goliath* will trigger depending on where the player avatar may be standing, or on completion of non-critical, secondary objectives.

The Team

Goliath requires a complete head-count of twenty-eight (28) individuals to complete, divided into a number of teams to complete all aspects of pre-production, production, and release. This will include a programming and software engineering team, an art and animation team, a creative and technical design team, an audio and sound team, a quality assurance and testing team, as well as any associated support staff required to operate a business (e.g. Legal).

Programming and software engineering will explicitly require two to three game engine programmers, two network programmers, two game mechanics & features programmers, and two scripting programmers, for a minimum of eight programmers. Engine programmers are responsible for optimizing the underlying game engine and improving performance. A network programmer is necessary to handle the complex networking associated with multiplayer, online games. Mechanics & features programmers will focus on creating tools that simplify the development process, such as a level editor and asset loader, as well as any other tools needed by the design team. The scripting programmer is responsible for automating planned game events, as well as handling any necessary technical requirements for animation and rigging.

Art and animation will follow a traditional visual effects/art pipeline, with a 2D concept artist, a storyboard artist, and two 3D concept artists working in tandem with two 3D modelers. Additionally, this team will also require an animation specialist with experience in rigging and animating models (e.g. preparing bones) who will work in conjunction with the programming/software engineering team to

integrate art assets into the game engine. Rounding out this team will require a dedicated art/programming producer overseeing the post-production and compositing process, for a minimum of eight individuals.

The design and writing team will require a mechanics designer to develop disability-centric puzzles. Additionally, environment and level design will require an additional three designers to create immersive and believable areas—one per area (park, city, hospital). Two more writers are necessary to generate the requisite technical documentation, dialogue, and backstory in *Goliath*, for a total of six people on the design and writing team.

Additionally, *Goliath* requires a sound team comprised of a composer for the soundtrack, and two sound engineers to handle background (passive) audio, and recorded/voiced speech (active) audio. *Goliath* will also require, at minimum, two quality assurance testers. To complete the development team will be an executive producer managing the entire project, working in conjunction with each team.

Risk Analysis

The primary risk in *Goliath* centers on the shared-perspective mechanic. Only allowing one player to control the avatar, while requiring sensory input from the other player could potentially be an exercise in frustration. Many design challenges revolve around players sharing the same body. Should the prototype reveal fundamental flaws in this mechanic, a new approach would need to be taken, most likely in the form of a new core (game) mechanic. However, with modifications, story elements and art assets could be re-used.

Another risk involves the fact that this is a relatively untried concept. Very few games have been made with disabilities as the centerpiece of narrative and gameplay. As such, attempts to minimize risk here involve streamlining control flow and general gameplay to feel similar to other popular titles.

Regarding development risks, an additional two months of lapse time has been incorporated into the development schedule to account for staff leave. This would include sickness, vacation, and other unspecified time off. The development schedule has also been organized into discrete development milestones, enabling a more granular scheduling process by only requiring certain teams to be present at certain times.

Additional Documents

- 1) Cutscene 1 – “Don’t Panic” – Screenplay**
- 2) Cutscene 1 – “Don’t Panic” – Spreadsheet**

SCREENPLAY – CUTSCENE #1 – “DON’T PANIC”

FADE IN:

INT. MARAH MEDICAL RESEARCH INSITUTE HOSPITAL ROOM DAY

Simon awakens with a jolt (to the sound of a television), gasping for air as he uselessly flails a handcuffed arm.

PAUL
(glancing over)
Everything alright over there?

Simon drops his head back onto the pillow and groans.

SIMON
(sarcastically)
Let me see. Massive headache,
handcuffed to my bed, two
missing legs – yeah I’m alright.

PAUL
Oh ... I apologize. I didn’t
mean to strike a nerve.

Paul and Simon are quiet for a few moments.

SIMON
(awkwardly continuing)
So you never did tell me what
you’re in here for...

PAUL
No, I suppose I didn’t. I --

SIMON
Wait let me guess. Lupus?

PAUL
(wryly)
Someone’s been watching a little
too much television.

SIMON
Hmm, you still have all of your
body parts. Cancer then? Naw, too
obvious, plus you still have hair.

(CONTINUED)

CONTINUED: (2)

Another period of extended silence in the room.

SIMON

Oh... shit. It's cancer isn't it.

PAUL

Don't worry about it.

SIMON

How long?

PAUL

Two years now.

SIMON

I meant how much time you got left?

PAUL

The doctors gave me approximately
two months. That was six weeks ago.

Loud cheering erupts from the television in the corner.

SPORTS CASTER (V.O.)

(on TV)

and he's rounding first, now second,
will he make it? Will he make it?

SIMON

Hey man, what's the score?

PAUL

I don't know.

SIMON

What do you mean "you don't know?"
You're looking right at the damn TV!

PAUL

I mean, I really don't know.

SIMON

Seriously? The TV is right in front
of you! Are you blind or something?

(CONTINUED)

CONTINUED: (3)

SPORTS CASTER (V.O.)

(on TV)

And he scores, leaving the game
tied, four to four as we enter the
bottom of the ninth!

Another awkward silence between Paul and Simon.

SIMON

Oh... shit. You're blind, aren't
you. Damn, just my luck.

PAUL

Don't worry about it.

They are interrupted by a knock on the door. A nurse enters
and records some measurements before replacing Paul's IV.

PAUL

Forgive my curiosity, if you don't
Mind my asking ... how did you come
to lose your legs?

SIMON

Well, one minute I'm standing in the
street, and the next thing you know, you
hear rubber screeching and boom, I wake
up here in bed. You know the rest.

PAUL

I suppose the logical next question
is: what were you doing in the street?

SIMON

(sheepishly)

Oh, I uhh ... (spotting a broom in
The corner) I'm a street cleaner. I
sweep the streets ... I was uhh ...
watching the sunset.

PAUL

And the handc--

(CONTINUED)

CONTINUED: (4)

SIMON
(interrupts)
Oh shit...

PAUL
Really, don't worry about it. I'm
like any other person. I just have
to do some things a bit differently.

SIMON
Damn, it's too early in the morning
for this. I wish I had some coffee.

PAUL
I'm afraid I can't help you there.

SIMON
Yeah well, not everyone gets
what they want ...

PAUL
You sound bitter.

SIMON
Yeah, well, I wanted to start a
coffee shop once. You know, run
my own business, set my own hours.

PAUL
So what happened?

SIMON
The economy tanked. That's what
happened! What do you care anyways?

PAUL
It's always good to have goals.
You should think more positively.

The television announcer drones on about the uncertain
prospects of Paul's company as the camera pans out.

FADE TO BLACK.

PAUL (V.O.)
Damn. I'm such a hypocrite.