

FACULTY OF SCIENCE, ENGINEERING
AND COMPUTING

School of Computer Science and Mathematics

MA DEGREE
IN GAMES DEVELOPMENT (DESIGN)

CI7800 Digital Media Final Project

Design Report

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Project Title: Songs, Dialogue, and Games – How dialogue
and song can be used as a storytelling device in a narrative
driven roleplay game to reduce the length of explicit
cutscenes

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Project Type: BODY of CREATIVE WORK

Kingston University London

Contents

Table of Figures.....	3
Acknowledgements.....	4
Abstract.....	5
Current State of the Art: A Review of Ludo, Literary & Music Influence.....	6
Video Games, Exposition and Song: Current Trends in Modern Games.....	6
Theatre, Opera and Symphonic Rock: Songs and Dialogue to Tell Story.....	8
Musical Inspirations.....	8
Opera and Musical Theatre.....	9
Rock/Pop Music.....	10
Game Soundtracks.....	10
Film Scores.....	11
Context of this project.....	11
Project Aims.....	13
Project Objectives.....	13
Project Plan.....	14
Methods.....	16
Professional and Ethical Considerations.....	17
Discussion.....	19
Conclusions.....	19
Overall project aim – Can dialogue and song be effectively used to reduce cutscene length? ...	19
Dialogue as a narrative tool.....	19
Lyricism and Song as a form of storytelling.....	20
General limitations of the project and research.....	21
Failures and Disappointments.....	21
Project Management Reflections.....	22
Future Works and Expanding on Ideas.....	24
References.....	25
Prototype Assets.....	26
Ludography.....	27
Audiography.....	27
Bibliography.....	28
Appendices Omitted – Full version of Report Available on Request.....	30

Table of Figures

Figure 1: Rivers in the Desert Battle - Persona 5	6
Figure 2: Seat of Sacrifice (To The Edge Battle) - Final Fantasy XIV	6
Figure 3: Phantom Rabbid – Mario and Rabbids: Kingdom Battles	7
Figure 4: The Great and Mighty Poo – Conker’s Bad Fur Day	7
Figure 5: Life if Strange Dialogue Choice	7
Figure 6: Mass Effect & Dragon Age Dialogue Choices	7
Figure 7: List of Musical Influences	9
Figure 8: Project Gantt Chart	14
Figure 9: Collaborative Tracker for Original Songs	14
Figure 10: Consent and Permissions for the use of data in questionnaire	17

Acknowledgements

I would like to express my gratitude and appreciation to the staff in the faculty of Science, Engineering and Computer Science at Kingston University that made this project possible.

Specifically, I would like to extend my heartfelt thanks to my supervisor Hope Caton for her unwavering support, professionalism and enthusiasm throughout this project.

I would also like to extend my deepest thanks to Yvette Ayres for her work as my co-composer on the two original songs, Danny Keeler-Smith for creating the artwork assets for the project and his work as a voice actor, and Phoebe Frolich for her work as a voice actor.

Finally, I would also like to deeply thank my family, specifically my partner Callum, for their unwavering support throughout both this project and my entire masters.

Abstract

This body of creative work explores how the use of a hybridised dialogue approach and narratively driven lyrics in original songs can be applied in the development of a game to reduce the overall length of cutscenes and encourage players to be more active as opposed to passive in gameplay. An extensive review of literature, music and games was carried out, and based on the views presented by O'Grady (2013) and Sicart (2012) about how cutscenes in video games work as both "spatiotemporal units of narrative, dramatic or spectacular significance" whilst also being "devoid of any procedural agency". From this, certain aims were determined that would allow for the appropriate creation of a prototype that would allow for the testing of a means at reducing cutscene length through audio-driven narrative, while defining what it means to be an "active player" and a "passive observer".

The work explored herein is based on a prototype that made use of a hybrid form of dialogue writing based on the naturalistic and melodramatic styles of theatre to communicate the games main narrative and two original songs that were written to provide both additional characterisation for certain characters as well as additional information on the world in which players were experiencing using theories of musical theatre, whilst drawing on wider genres of game and film music along with more contemporary rock and pop.

Incorporating both quantitative data collected in play testing along with qualitative responses provided, this body of creative work demonstrates that, despite some limitations, there is a feasibility in the use of dialogue and song to be used in place of some cutscenes in video games, given that both the dialogue and songs have clear narrative purpose and present specific ideas that are easily understandable and not abstract to players.

Current State of the Art: A Review of Ludo, Literary & Music Influence

The premise of this body of work is to explore how narrative exposition can be presented to players of games through the merging of theatrical ideology in terms of dialogue development and underpinning theories around the use of songs and lyrics as a form of narrative delivery to maximise the time players are active whilst experiencing narrative games.

The rationale behind this thinking is based on the somewhat negative views presented by Sicart, 2012, who stated that video game cutscenes are “devoid of any procedural agency” and juxtaposed by O’Grady, 2013, who described cutscenes as “a spatiotemporal unit, often freighted with the narrative, dramatic, or spectacular significance”. Both forms of thinking actively imply the more passive elements of cutscenes, although in differing views, and this project aims to explore how dialogue and song can be used in place of lengthier exposition based cutscenes to increase the time players are actively playing the game, as opposed to passively watching them.

Video Games, Exposition and Song: Current Trends in Modern Games

When reviewing the current landscape and trends for how exposition is presented in games, specifically through song, there are a limited number of examples of games that offer this form of thinking. Persona 5 and Persona 5 Royal exemplify some of the thinking that will be developed in this body of work through its use of songs that indicate additional narrative exposition during the games battle sequences and some parts of level exploration, when reviewing the lyrics of the songs “Rivers in the Desert”, “Life Will Change”, “I Believe” and “Take Over” there are clear narratives each of the songs is telling along with imagery that is designed to further these ideas (Atlus, 2016) & (Atlus, 2019).



Figure 1: Rivers in the Desert Battle - Persona 5

Final Fantasy XIV also makes use of songs for narrative purposes. When reviewing the soundtrack for the game and its subsequent expansions, in particular Shadowbringers, many of the lyrics written for the songs used in the opening cinematics are used to communicate narrative themes to players, however “To The Edge”, a track used for a climactic 8-person battle in Shadowbringers, was written to represent the stories of the characters involved in the battle, providing players with broader narrative threads tied to this in-game battle (Sicycre, 2020) & (Soken, 2020).



Figure 2: Seat of Sacrifice (To The Edge Battle) - Final Fantasy XIV

Mario and Rabbid’s also includes a character focused musical sequence, albeit in a cutscene, to convey to players some character focused exposition through the “Phantom Rabbid’s Song”. Although occurring in a cutscene, the song introduces players to a character and highlights their motives and provides additional narrative threads (Ubisoft Milan, 2017).

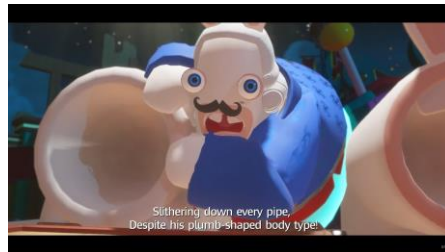


Figure 3: Phantom Rabbid – Mario and Rabbids: Kingdom Battles

The final game researched that makes use of songs for the purposes of exposition is Conker’s Bad Fur Day. Despite being totally different from both Final Fantasy XIV and the Persona 5 games, Conker’s Bad Fur Day includes a boss battle wherein the introductory cutscene and additional cutscenes in the battle have the boss communicate through baritone operatic singing to communicate the characters personality and backstory (Rare, 2001).



Figure 4: The Great and Mighty Poo – Conker’s Bad Fur Day

In terms of the use of dialogue for exposition, games such as Dragon Age Inquisition, Mass Effect and the Life is Strange games make effective use of dialogue as a gameplay mechanic to allow players to learn additional information from both a world building and character perspective. Both games incorporate these mechanics into the core gameplay in different ways, with Life is Strange using it as the core mechanic for progression (Figure 5) and both Dragon Age and Mass Effect using them as mechanics to allow players to explore further information about the game’s world and broader narrative (Figure 6) (BioWare, 2014), (BioWare, 2021) & (Deck Nine, 2021).



Figure 5: Life is Strange Dialogue Choice



Figure 6: Mass Effect & Dragon Age Dialogue Choices

All these games also put player choice, and therefore activity, at the centre of these dialogue scenes allowing players to make informed decisions while actively engaging in the games, as opposed to passively watching the events unfold in a cutscene.

Theatre, Opera and Symphonic Rock: Songs and Dialogue to Tell Story

The landscape and thinking around lyrical storytelling are very broad and stretches across a range of genres of music from rap to musical theatre and even extending into symphonic rock music. For this body of work, however, the focus on how lyrics are used as storytelling devices is limited to those found in musical theatre, more classical opera, and contemporary symphonic rock music. The reason for this more limited view is based on the style and genres that were used when developing the songs for this project.

Sondheim states that approaches to song writing and music for musical theatre should always be centred around either the character that is performing the song or, if an ensemble piece, focus on providing the audience with further context that will support their development in understanding the story being told. He suggests that the construction of lyrics needs to be at the forefront of the musical development for shows and that lyricists and composers should focus on how the song will serve the audience and the stories being told and a song should never be “just thrown in”. Carefully interweaving narrative with music is at the core of good musical theatre and this should be at the forefront of the mind of those that are developing songs with a narrative purpose (Sondheim, 2010). These ideas are further iterated by Lloyd-Webber who has stated that when approaching the writing of a musical, the story being told needs to appropriately tie in to songs and as such lyrics need to reflect the characters personality whilst also preserving the story each song is telling (Lloyd-Webber, 2019).

The importance of story-focused lyrics appears time and again when reviewing a range of plays and shows in this genre, dating back to classical opera’s such as Mozart’s Don Giovanni where a mixture of catalogue arias are used to communicate information to the audience effectively without the need for an extended monologues (Mozart, 1787) and letter arias similar to those that appear in Tchaikovsky’s Eugene Onegin that relay important character information and exposition to the audience through song (Tchaikovsky, 1879).

The use of songs as a medium for storytelling is not, however, limited to just those that are performed for opera and musical theatre. Contemporary bands such as Within Temptation and Nightwish have both released albums with a central narrative theme, often referred to as high-concept albums (BraveWords, 2010). These albums feature songs that, when listened to as whole create both narrative and intriguing world building purely through the ways in which the lyrics and music are used to convey story and emotion to the listeners. The album “The Unforgiving” by Within Temptation, however went a step further by producing short films and a series of comic books that further elaborated on, and developed the characters that were referenced in the songs on the album, providing listeners with additional visual elements to support the narratives created in their songs (Within Temptation, 2011). Whereas Nightwish wrote an album, *Imaginaerum*, which told a disjointed narrative about a child that experienced a dark fantasy world and was used as the base for the 2012 film of the same name to further the lyrical storytelling of the album (Nightwish, 2011) & (*Imaginaerum*, 2012).

Musical Inspirations

To enable a broad and succinct approach to the composition of the original songs, a significant review from a wide range of musical genres was undertaken. The purpose of this review of music was to better ideate and identify the ways in which varying musical forms presented across various

genres and composers are used in the communication of both story and overall emotive tone. The below table details the broad spectrum of music reviewed as part of this project that helped shape the two songs to best fit the tone and theme of the prototype's narrative goals.

Album/ Musical/Opera/Soundtrack	Genre	Composer/Artist
Eugene Onegin	Opera	Pyotr Ilyich Tchaikovsky
Don Giovanni	Opera	Wolfgang Amadeus Mozart
The Phantom of The Opera	Musical Theatre	Andrew Lloyd-Webber
Sweeny Todd	Musical Theatre	Stephen Sondheim
Into the Woods	Musical Theatre	Stephen Sondheim
Wicked	Musical Theatre	Stephen Swartz
Bat Out of Hell	Rock/Pop Album	Meatloaf & Jim Steinman
The Unforgiving	Rock/Pop Album	Within Temptation
Imaginaerum	Rock/Pop Album	Nightwish
Violator	Rock/Pop Album	Depeche Mode
Construction Time Again	Rock/Pop Album	Depeche Mode
Hounds of Love	Rock/Pop Album	Kate Bush
Final Fantasy 7 Remake Soundtrack	Game Soundtrack	Nobuo Uematsu et al
Final Fantasy XIV – Endwalker Soundtrack	Game Soundtrack	Masayoshi Soken
Kingdom Hearts 3 Soundtrack	Game Soundtrack	Yoko Shimomura
Persona 5 Royal Soundtrack	Game Soundtrack	Shinji Meguro & Lyn
Batman Arkham Knight	Game Soundtrack	Nick Arundel & David Buckley
Avatar: The Motion Picture Soundtrack	Film Score	James Horner
The Dark Knight Trilogy Soundtrack	Film Score	Hans Zimmer
The Amazing Spiderman 2 Soundtrack	Film Score	Hans Zimmer, Jonny Marr & Pharrell Williams
Star Wars Franchise Soundtrack	Film Score	John Williams
Star Trek: Into Darkness	Film Score	Michael Giacchino

Figure 7: List of Musical Influences

Each genre of music in the above table denotes specific forms of musical or lyrical significance in terms of the structure, melodic qualities and lyrical composition within the two songs in this project.

Opera and Musical Theatre

Since the earliest planning of this project the focus for the songs has been focused around how to incorporate the ideas and musical structures of classical opera and musical theatre into video games as a means of communicating narrative. When reviewing the operas of Mozart and Tchaikovsky, the ways in which lyrics were central to character and plot progression was heavily apparent throughout, with each songs melody being written in a way as to further emphasise the emotions the characters were feeling whilst also driving forward the plot. However, more classical operas tend to focus on the use of song as the sole or main manner of narrative delivery, with dialogue being used sparingly and as a means in which to expand briefly on a certain thought presented in each song.

Similarly, the ways in which songs and lyrics drive narrative within musical theatre are again heavily apparent. However, apart from The Phantom of the Opera which leans more into the structures of classical operas, musicals tend to use songs to drive the narrative at key moments for characters within their individual narratives, focusing on turning points or critical moments within the

characters personal stories and making use of dialogue to communicate the less critical moments or as a prelude to these more significant songs. The use of Defying Gravity in *Wicked* and Sondheim's positioning of Epiphany in *Sweeney Todd* allow the characters to provide necessary exposition to the audience in a concise and musically focused way without the reliance on extended monologues or soliloquys, enabling certain key narrative points to be presented to the audience in a form that may be seen as more engaging than a more Shakespearean soliloquy. Many of these songs also rely heavily on a visual spectacle to further emphasise the lyrical storytelling of the songs when performed on stage.

Rock/Pop Music

Considering the melodic aspects of the songs composed for this project and exploring how to frame thematic ideas more broadly to players through the instruments, inspiration was sought through reviewing a range of contemporary music, with a specific focus on how the repeated melodies in rock and pop music are used to support lyrical storytelling, albeit simplistic stories, or stories that focus on a central theme.

Early explorations of music within this broad genre were focused on *The Unforgiving* by Within Temptation and *Imaginaerum* by Nightwish, as explained in a previous section. However when exploring a broader field of music within this genre (Meatloaf, Depeche Mode and Kate Bush) the ways in which instruments and time signature of songs such as *Bat Out of Hell*, *Everything Counts*, *Enjoy the Silence* and *Running Up That Hill*, in relation to their lyrics and how often the off-beat is used as a place to start a lyrical phrase, enable the songs to create easily recognisable melody lines that both match and occasionally juxtapose the tone of the songs.

The instrumentation is also central to how contemporary music within these genres set the emotional tone of the song. Outside of the keys in which the songs are written and performed, the instruments themselves play a significant role in communicating the overall mood of the song, by either contradicting (*Enjoy the Silence* by Depeche Mode) or complementing (*Bat Out of Hell* by Meatloaf and Tim Rice) the lyrics. The use of instruments to convey tone is echoed in more popular contemporary music in much the same way it is applied in classical opera and musical theatre.

In terms of framing lyrical breaks or musical transitions within contemporary music, instruments play a major role. Most contemporary songs employ solo instruments (keyboards, synthesisers, or guitars) to enable lyrical breaks. Often these occur following the bridge in a song which allow for a sense of musical transition. This aspect of rock and pop music is a central reference point that was used in the composing of the song '*Our Light Will Burn*', as explained in the '*Methods*' section.

Game Soundtracks

Soundtracks within games are used to varying effect based on the genre of the game and the circumstances within gameplay. As explained in an earlier section, the ways in which Soken and Meguro explore the use of song for partial exposition and narrative communication in their respective games highlights how this project relates to current trends within some aspects of the games industry. However, through broader exploration of the ways in which music is used in games within the RPG genre there are trends in how scoring of music is used to reflect both the overall mood of a game/level as well as communicate turning points in the narrative. The *Batman: Arkham Knight* soundtrack makes use of the same set of musical motifs throughout the game for specific characters. These motifs, however, evolve and change based on the circumstances the player finds themselves in, in terms of overall plot and specific missions as well as the journeys certain NPCs are going through. This is also true of how certain melodies are used by both Uematsu et al and Shimomura in the soundtracks for *Final Fantasy 7 Remake* and *Kingdom Hearts 3* respectively. Both

use a variety of musical motifs and melodies that are constantly present throughout the games, however, will employ the use of different instruments to convey the environment players are in, and the circumstance surrounding that plot point, as well as making use of specific pieces of music to evoke emotional responses from players within specific moments of gameplay and cutscenes that reflect action on screen.

Within the scope of the game soundtracks reviewed for this project, on top of how musical motifs and melodies are used to create a sense of familiarity between player and music, all these games make use of very specific pieces of music to symbolise the central villains. These pieces of music, as well as being played at varying points throughout the game, are often heard with a smaller number of instruments or at a much slower time signature until the climactic battles of the games or moments where the villain is victorious against the protagonist(s). It is during these climactic moments that the melodies players will have heard several times throughout the game will have a much broader array of real or virtual instruments creating a far larger and grandiose sound to reflect the climax of the narrative and convey the grandeur of the battle to players. Further to this the ways in which instruments are both harmonised and conflict with one another on a melodic level is often used to further the ideas of these final conflicts. The ways in which many scores for games are written and employ layered instruments that both harmonise and conflict was integral in the composing of both 'These Mortals' and 'Our Light Will Burn'.

Film Scores

Much like the ways game soundtracks are used to supplement the dialogue within scenes, film scores actively use music to match and further communicate the tone of a scene within a film. When exploring the importance of changing time signatures within a single song, Horner's use of multiple time signatures within a single piece of music in the Avatar soundtrack is used to convey a variety of narrative features from the characters sense of wonder and excitement to apprehension. The use of time signatures and varying keys is also frequently present in the works of Zimmer, Williams and Giacchino who all employ both tempo and key changes within certain songs.

The Imperial March by Williams exemplifies this in the way that a key change is used, along with additional instruments in the final "verse" of the piece. The key and tempo change allows for the communication of the idea of force and power to the audience which matches the visuals seen on screen. Zimmer achieves this also, in his use of key changes in both the Dark Knight trilogy and The Amazing Spiderman 2 soundtracks. Across all films Zimmer makes use of certain repeated melodies throughout to match visuals during climactic moments in these films, Zimmer uses slight key changes, or semitonal variances to set apart the familiar melodies to match on-screen climaxes or reflect the emotions of the characters present in the scene.

By contrast Giacchino mixes the melodies present in a scene to evoke specific emotional response. In the score for Star Trek: Into Darkness the melody associated with the star ship Enterprise is used in moments of on-screen peril to cut through the more melancholic or aggressive musical tones to create a sense of hope out of a hopeless situation.

The ways in which the above composers employ key and time changes and make use of certain melodic intervals within music were central to the composing of the hopeful refrain heard in all songs and music present in the prototype.

Context of this project

Considering the current landscape within gaming and how both dialogue and song are being used to convey certain narrative threads, as detailed above, this body of work explores how current use of

both song and dialogue can be applied and expanded within games, specifically the RPG and narrative-focused genres, to reduce the length of cutscenes through audio and also providing players with a greater sense of urgency, resulting in them being more active as opposed to passive, which is defined in the 'Methods' chapter.

The innovation in this project comes from the ways in which both the dialogue and songs have been written, making use of theatrical and musical theatre ideology. The merging of gaming and theatre craft is not a particularly new field of study as Bloom argued that "games can be approached and studied as theatrical media and theatre" (Bloom, 2018) and Delikonstantinidou & Nikolaidou explored how the mapping of theatrical ideology to a massive multiplayer online RPG (MMORPG) narrative can be used to develop experiential ways to rehearse social change (Delikonstantinidou & Nikolaidou, 2021), however this project explores how the merging of theatrical dialogue strategies and musical theatre song writing can be applied to present narrative opportunities in a game whilst enabling a player to remain more actively involved in the process of play, as opposed to passively absorbing information through the use of lengthy cutscenes.

Project Aims

The central focus for this body of work is to explore how methods used in the development of songs and dialogue for theatre and film can be applied within video games to provide players with narrative exposition, whilst reducing the need for lengthy and explicitly exposition-focused cutscenes. Below are the projects aims that were explored during this project which have developed from initial proposal stages.

- To define what it means to be an active player and a passive observer from a gameplay perspective and apply this in the development of all prototype assets
- To employ varying ideologies used in musical theatre and opera to write 2 distinctly different songs that provide character driven exposition from a perspective of wider world building and character thoughts
- To employ and merge the conventions of naturalistic and melodramatic theatre to write 2 separate scenes that have songs embedded within them
- To explore how audio and artwork can portray both a narrative and sense of a key gameplay moment.
- To implement the audio-narrative elements into an appropriate prototype that actively tests overall project aim – Dialogue and Lyrics may be used to reduce overall cutscene length in games

Project Objectives

Following the development of these aims, further objectives for this project were set along with a fluid plan to enable all assets to be created and enable ample time for testing of the central theory – Dialogue and lyrics can effectively communicate narrative whilst allowing players to remain actively playing, thus reducing the length of time spent by players passively observing cutscenes.

- Research and define what active players and passive observers are in the context of gamers
- Write a narrative for a 70-level action role play game
- Compose and record 2 different songs that reflect different narrative themes and musical styles linked to the game's narrative
- Write narrative driven dialogue for 2 key scenes by merging the conventions of naturalistic and melodramatic theatre
- Construct a series of artwork focused scenes that, when viewed in tandem with a song, convey the sense of a climactic in-game battle
- Create a working prototype using Unreal Engine 5 and the Wwise Audio Engine for the 2 key scenes with implemented dialogue
- Test project aims with a minimum of 10 play testers
- Analyse player understanding of the narrative using the prototype through a google forms survey

Project Plan

To ensure that all aspects of the project were effectively created, and the aims could be fully met and tested, planning of the project was done using a Gantt chart (Figure 8) along with conditionally formatted checklist (Figure 9). These choices were made to enable the project to move apace and ensure maximum collaborative working could be achieved with other creatives that lent their support to this project, whilst also allowing for crossover work to be conducted on various aspects of the project to compensate for time constraints and availability of collaborators.

Task		March	April	May	June	July	August	September
Proposals	First Draft Proposal	█						
	Final Proposal		█	█				
Songs	Compose Songs	█	█	█	█	█		
	Use DAW to edit and develop				█	█	█	
	Record Vocals							█
Screenplay	Write screenplay for 2 scenes				█	█		
	Record voice over				█	█	█	
Game Docs	Create narrative overview doc - Total Level Count: 50				█	█		
	Write GDD				█	█	█	█
Prototypes	Determine best prototype engine (Chosen Engine - Unreal 5)		█					
	Design Prototype Levels			█	█	█		
	Implement Sound Files				█	█	█	
	Final prototype adjustment - from play testing)						█	█
Testing	Play test (10 users)				█	█	█	
	Create user survey for testers				█	█		
	Analyse Survey results						█	█
Interim Doc	Interim Report					█		
	Interim Early Demo					█		
Final Reports	Final Report						█	█
	Presentation							█

Figure 8: Project Gantt Chart

Song Checklist			
Y = Done, N = Not Done, P = In Progress			
These Mortals - Slow Song			Our Light (Will Burn) - Boss Song
Write Lyrics and Melody - Male part	y		Re-do String Melody
Write Lyrics and Melody - Female part	y		Alter Guitar Chords to match melody
Write Strings (long chords)	n	Not included	Change Lyric rhythm
Write Piano chords and melody	y		Create Bass Guitar Line (From Cello)
Rework Bridge Melody to include spoken word aspect	y		Create Lead Guitar Riff and Solo (Dance around G and C - up to 15th fret)
Write bridge transitional melody (both into and out of)	y		
			Add Synths
			Add Woodwind
			Add 1st Chair Violin
			Add Percussion - Timpani
			Add Percussion - Regular
			Intro - Synths, Piano and Drums - think about other instruments.
Record Vocals	y		
Bring into DAW and Edit final version	y		
			Record Vocals
			Bring into DAW and Edit final version

Figure 9: Collaborative Tracker for Original Songs

Despite industry trends in the use of online planning boards such as Trello, a cloud-based spreadsheet was used mainly with the focus on allowing ease of access for artistic collaborators on the project who may not be as familiar with the overall use of such tools.

Throughout the process there was mild application of SCRUM techniques, however due to the scope and style of the project, and the need for a high level of flexibility when approaching creative tasks, such as the writing of two original songs and associated voiceover scripts and working with both creative collaborators and voice talent, this application was more focused on the development of the final prototype within the game engine (Unreal Engine 5) due to scheduling difficulties and conflicts with talent/collaborators (explored in detail in the 'Methods' and 'Discussion' sections of this report).

Regarding the planning of the playtesting for this project, and largely because of planned delays from working with collaborators and talent, the initial plan to set aside a month of testing, as seen in the project proposal, was moved to a two-week period towards the end of the project and resulted in a final test count of 18. Although this is within initial projections, and provides a level of generalised data, more time to allow for the testing would potential have resulted in a broader conclusion being developed.

Methods

This project required a range of creative, reflexive, and adaptive methods when approaching the varied tasks associated with the development of the creative assets (including the final prototype), along with determining appropriate definitions of active players and passive observers which underpins much of this project's research focus and many of these methods and approaches developed throughout the development process.

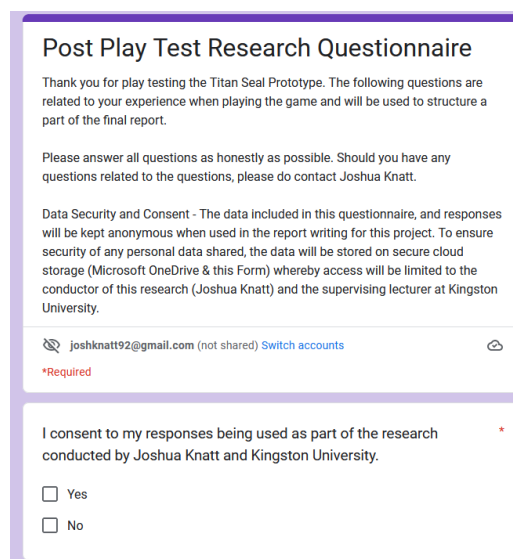
Methods and Outcomes Omitted – Full copy of report available on request

Professional and Ethical Considerations

Throughout this project due care and attention has been given to the landscapes of both professionalism and ethical considerations of myriad issues from copyright infringement to data protection and privacy.

Regarding approaches taken to copyright infringement and intellectual property rights (IPR), all assets used within this project, including the use of third-party assets, individual voices, and musical melodies have been appropriately referenced and credited where appropriate. Regarding the use of voices for singers and voice actors, prior permissions were gained, and all performers and collaborators were appropriately credited in the credits of the prototype as to ensure proper credit was awarded to these individuals for their contribution. Third party assets that are the intellectual property of third parties have been included both in this document and within the credits of the prototype to appropriately credit the artists whose work was used in the project.

In relation to the secure holding of any data stemming from the play testing and questionnaire, the questionnaire was written using Google Forms due to its inbuilt security and data protection based on the Privacy Policy written by Google (Google, 2022) whilst also following the guidance set out by Kingston University with regard to user testing along with GDPR. As such no personal data was stored or taken for this project, other than the opinions expressed by the play testers in the questionnaire. Further to this, play testers were asked to provide consent in the form of a simple “Yes/No” question before beginning the questionnaire in which data protection and use of data was explained (Figure 27). This question was mandatory and any play testers who selected “No” were advised to not complete the questionnaire.



The image shows a screenshot of a Google Form titled "Post Play Test Research Questionnaire". The form contains the following text:

Thank you for play testing the Titan Seal Prototype. The following questions are related to your experience when playing the game and will be used to structure a part of the final report.

Please answer all questions as honestly as possible. Should you have any questions related to the questions, please do contact Joshua Knatt.

Data Security and Consent - The data included in this questionnaire, and responses will be kept anonymous when used in the report writing for this project. To ensure security of any personal data shared, the data will be stored on secure cloud storage (Microsoft OneDrive & this Form) whereby access will be limited to the conductor of this research (Joshua Knatt) and the supervising lecturer at Kingston University.

Below the text is a contact information field showing "joshknatt92@gmail.com (not shared) Switch accounts" with a red asterisk indicating it is required.

The bottom section of the form contains a consent statement: "I consent to my responses being used as part of the research conducted by Joshua Knatt and Kingston University." followed by two radio button options: "Yes" and "No".

Figure 10: Consent and Permissions for the use of data in questionnaire

Due to the nature of this project in that it is a form of consumable media (a video game prototype) part of the considerations from an ethical perspective was determining an appropriate rating for the game using the ratings set forth by Pan European Game Information (PEGI). Based on the descriptor for a PEGI 16 Rating “This rating is applied once the depiction of violence (or sexual activity) reaches a stage that looks the same as would be expected in real life. The use of bad language in games with a PEGI 16 rating can be more extreme, while the use of tobacco, alcohol or illegal drugs can also be present.” (Pan European Game Information (PEGI), 2017) the decision to label Titan Seal (the game) with this age rating was deemed appropriate due to the themes and depictions of violence, alcohol

and tobacco depictions, along with language use that set out in the game design document and narrative document.

All professional and ethical consideration made regarding this project were made on the basis that the prototype for this game is available in video format and as a downloadable demo online, and as such the proper crediting of the intellectual properties of third parties, along with the inclusion of specific talents voices and creative collaborators was of paramount importance when approaching these vital issues.

Discussion

This project presents ideas within a microcosm of creative thinking; overlapping and merging creative thinking from that of passive entertainment found in theatre and music with the more active form of entertainment present within video games. Despite much of the collected data reflecting the potential of the project's central aim, additional feedback made additional suggestions on ways in which narrative could be communicated to players to either support or supplement dialogue and lyrics. The project has several strengths and limitations as well as some significant failures and disappointments that may have hindered the overall effectiveness of the project, as detailed below.

Conclusions

Overall project aim – Can dialogue and song be effectively used to reduce cutscene length?

The body of work presents some positives from the conclusions that can be drawn from the user testing. Chief among these is the response to the feasibility of dialogue and song being used as a means to reduce the length of cutscenes in video games, with 88.6% of all play testers agreeing or strongly agreeing with the statement around it being a feasible option. However, additional feedback provided from testers stated several key points around the use of dialogue and songs as a narrative medium in games. Chief among these was the potential of narrative elements needing to be kept simple as players highlighted that, especially during the 'Our Light Will Burn' sequence, players actively playing the game may result in split focus and as such more complex narrative ideas that are communicated using the medium of song would be lost as players are likely to be more focused on the gameplay over the music itself.

Players also highlighted the role that music and song plays regarding player immersion and as such they felt there was significant scope for the effective use of song and music to support and extend narrative, whilst some built on this to pose the importance of balancing the amount of narrative exposition being presented through the songs in relation to gameplay elements within specific scenes/levels.

A limitation of this particular focus of the project, however, was demonstrated in other feedback that questioned the feasibility from a more holistic standpoint, referring to the suitability of this kind of project being usable within a broader spectrum of game genres such as shooters, action games and puzzle games.

Certain feedback also highlights the need to use sound sparingly as a narrative tool and suggested that the importance of a range of factors from visual and sound effects to level and environmental storytelling in conjunction with cutscenes to ensure that narrative aspects were accessible for all types of gamers.

Dialogue as a narrative tool

The dialogue elements of the project present interesting conclusions regarding the overarching foci of the use of dialogue as one of two central points with which narrative is communicated over cutscenes. 61.12% of players either agreed or strongly agreed that the dialogue present in the prototype effectively communicated a wealth of information ranging from world building and character motivations to overall understanding of the game's narrative.

However, when reviewing the data and subsequent comments from testing a significant proportion (72.2%) found the information on the antagonist unclear or not detailed enough highlighting the need to ensure that narrative focused dialogue has clear set goals for all information being communicated to players and works to ensure that all necessary information is effectively

communicated to the player. The dialogue for the gameplay scene was written to allude to the events of the game in keeping with the cyclical narrative that is a feature of the game's storytelling. To that end, perhaps the inclusion of information related to the use of this style of narrative would have better communicated the intent of the scene as opposed to this question. There is also a potential that the wording of the question itself is a limitation in terms of overall data collection as the information on the antagonist from the associated dialogue was written to be purposefully ambiguous in the gameplay scene and alluding to the game's events in the video sequence at the end.

Lyricism and Song as a form of storytelling

The songs as a medium of storytelling, based on testing, were effective in their roles of communicating narrative exposition to players regarding game world and character thoughts. However, the general response to the narrative delivered in 'These Mortals' in the main gameplay sequence was, by some play testers, seen to be lacking in some clarity in terms of the narrative being communicated with 55.5% of testers either agreeing or strongly agreeing that the song provided them with enough information about the game world and certain narrative threads, with 11.1% of players disagreeing with the statement altogether. This implies that, despite the use of varying musical theatre techniques, the song 'These Mortals' should have had more time spent exploring the lyrics to ensure that each stanza within the song communicated the overall meaning as stated in Figure 9 and provides the potential for the exploration of potentially taking the narrative being explored in a single song and splitting it into more than one to enable players to process all the information in more 'bitesize chunks', potentially increasing the percentage of players that could effectively understand all of the narrative the song communicates. There is also the potential for the song to be divided into section and interspersed between some of the dialogue within the level. This however would be reliant on more developed level design, as a key issue discovered throughout this process was structuring level areas to be long enough to allow players to hear all the present dialogue and the song and as such several revisions of the design of the levels were needed to ensure that players were given enough time to listen to all of the dialogue and the song in its entirety before moving to the next area.

In contrast, however, the narrative provided in the song 'Our Light Will Burn' seemed to provide most players with a clear understanding of the story being told in this scene with 83.3% of players and 0% of tester disagreeing or strongly disagreeing with the statements. The implications of this clearly show how through the structuring of this song using more contemporary and conventional methods (Verses, repeated pre-chorus & chorus, bridge) enabled players to better understand the narrative being provided. However, in the written and verbal feedback provided some testers did highlight that the biggest support in their understanding of the narrative was the added subtitles that are shown during this sequence but did add to this saying that the melodies present in the music presented the sense of defiant hope that was a central theme to this song. The issue with this feedback is that it may be difficult to determine whether the song alone is able to effectively communicate the narrative, or whether players would require additional subtitles to better iterate the storytelling of the song.

The other limitation of 'Our Light Will Burn' as a sequence is that it is a purely passive experience designed to explore whether or not players are able to glean a sense of the final battle occurring, and although 88.6% of testers agreed or strongly agreed with this sentiment, the fact remains that whether they would be able to fully follow the narrative if they were actively playing the battle sequence would need to be tested further.

General limitations of the project and research

One of the central limitations to this body work is in the amount of time allocated to play testing when compared to the project as whole. The testing phase from early proposals suggested a minimum of 3 weeks of testing, however as the project developed and certain challenges presented themselves the amount of time committed to testing was significantly reduced to just 10 days to allow for appropriate data collection to determine a level of impact. However, this reduced timeframe meant that further developed testing could not be implemented to build upon early feedback. This oversight in terms of time managed reduces the overall validity of the data as the sample size was not big enough to explore broader appeal of the project in its entirety. Had greater time been allocated to the testing phase, and certain aspects of the project been slimmed down as to enable this then a larger sample of testers would have been able to be gathered improving the overall validity of the data collected.

Another major limitation for this project comes from the format of the questionnaire and data obtained during testing. This was down to the five-point scale used for testers to input data from 1 (strongly disagree) to 5 (strongly agree). The limitations of this model were that a 3 on the scale comprised a 'neither agree nor disagree' categories, which, for several questions, was the chosen response providing no clear data other than to assume that the responses were middling, wherein testers had no significant opinions for the questions being asked. Strengthening the scale and reducing it to a four-point scale would have resulted in much clearer and potentially more useful data that demonstrates stronger ideas in terms of the effectiveness of the various narrative elements explored in this project.

Failures and Disappointments

Within the project there were an array of failures and disappointments that were both present and absent from the final prototype. One of the main disappointments and related failures of this project was in the combat system of the game not working as intended due to the lacking experience with regards to programming, especially using Blueprint. Although Blueprints allowed many additional game systems to be implemented with relative ease, the enemy monsters present in the latter third of the gameplay portion of this project did not work as intended, in that they did not randomly roam around specific areas of the map and their damage system, and therefore the players ability to kill them was absent from the prototype. The result of this issue was the need to make adjustment and very late additions to the dialogue to explain the players being unable to kill the monsters in a thematically appropriate fashion, resulting in further development of the level design to factor in the additional dialogue required.

A further disappointment was in the final voice recording of the songs. The initial plan was to make use of professional singers to record the vocal tracks for the two songs, however at a late stage in the development of the songs, these singers dropped out, resulting in myself and the co-composer needing to rearrange the songs to fit our respective vocals ranges. The result of this was significantly reduced quality in the singing delivery of the songs and the need for further time to be spent of the vocal production of these vocal tracks to bring them up to an acceptable standard, however they ultimately served their purpose within the wider project, to a lower standard that had been initially anticipated.

A final disappointment and subsequent failure within the project were the inclusion of additional, planned and independently triggered dialogue sequences and additional gameplay mechanics such as puzzles and interactable areas in the game world. These were omitted due to both time constraints and the need to restructure the size and length of the levels. Following the recording of

the main scripted dialogue, initial plans were to include additional voice lines that would reward players exploration around the levels. This additional dialogue was initially drafted to provide additional, non-plot specific dialogue with a view to provide players with additional information around the 'world that came before' and was designed to work off independent triggers that would play should players explore specific locations within the level. However, as the project moved forward this idea was omitted owing to a lack of time to write, record and implement this additional dialogue, and due to the need to consider how these triggers would pause the main narrative dialogue and then resume the playing of said dialogue in both Wwise and Unreal Engine 5. The lack of technical understanding of how to make these aspects of additional dialogue work effectively in the game in terms of setting them up within Wwise and Unreal, coupled with the limited time remaining to carry out effective play testing resulted in these elements being left out of the project. Interestingly the addition of this style of dialogue was a suggestion made by several play testers during the testing phase, with several stating how additional dialogue such as the ones described above would provide them with further understanding of the game world, as well as the characters. Additionally, initial plans had revolved around certain pathways players could take would be blocked off due to collapsing buildings in the overworld areas, along with the inclusion of a light puzzle to open the light doors present in the lab level. Time constraints and programming skills were both major factors in these aspects of gameplay being omitted from the final prototype. The overall impact of this in regard to the project aims is minimal, however the inclusion of such additional mechanics would have resulted in a more interesting and engaging prototype, a comment echoed from verbal feedback by 6 play testers in post-play discussions.

Project Management Reflections

Generally, the management of this body of work was adequate in that it allowed for the creation of a prototype with associated assets to appropriately test and evaluate the aims of the project. However, during early phases of the project, a broader range of contingencies should have been explored, such as having altered versions of the songs should either or both singers be unable to lend their voices to the project. The same could also have been said about the voice talent that is also present within the game. These contingencies, had they been explored at an earlier point may have alleviated some of the additional work that was created when the singers had to pull out of the project at such a late stage in the songs production.

Initial ideas also focused on the use of the SCRUM and Agile methods in terms of a project management, however it was discovered early into the project that, due to the nature of the creative works being undertaken, this form of project management would not effectively lend themselves to the project. As such a more simplistic form of project management was employed by setting dual deadlines for all aspects of the project. The rationale here was to have a 'soft' deadline by which certain assets (script drafts, melody sections, level designs etc) should be complete by to enable greater time to be spent on other areas of the project (such as testing). The second of these was a 'hard' deadline, usually 5-10 days after the 'soft' deadline whereby that was the cut off for that aspect of the project. This turned out to be a highly effective manner of project management when composing the songs and working on the level design aspects, however following a table read of the script first draft with the other voice talent present in the project, the deadlines for the implementation of the voice lines into the project was moved by 15 days to allow for re-writes and accommodate for the travelling to voice actors for recording sessions of the dialogue.

Despite the constant shifting nature of the deadlines and targets within the project, overall management was effective enough to produce a prototype that would enable the exploration of the project aims, whilst meeting the availability of the creative talents that worked alongside the

creation of some of the assets in this project, and contingencies that were planned for were effective in ensuring this. However, had more time been spent in the early portion of the project lifetime exploring additional contingencies, along with determining the use of Unreal Engine 5, then there is potential for this project to have been more developed and provide greater narrative through broader dialogue and potentially better realised gameplay mechanics.

Future Works and Expanding on Ideas

Section Omitted – Full Copy of Report Available at request

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