Development of a coming of age video game with a complex narrative.
The things I said about the stars

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Final Degree Work

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To the ones that are not afraid of being themselves

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ABSTRACT

Video games are forms of media that due to their interactivity can support complex narratives. This narratives can abroad sensible topics in a way other forms of media cannot. The combination of mechanics, narrative and game world makes video game the perfect way of communicating the player the deepness of those sensible and themes, not only explicitly but implicitly. This document presents the report of the Final Degree Work of Alberto Alan Sánchez Andreu in Video Games Desing and Development, a first approach and the construction of the basis of a 2D adventure video game about the change and how young adults face it titled *The things I said about stars*. The basis of a video game are composed by its programming, art and game narrative. Those elements are expected to be developed in order to transmit the player the feeling intended.

Keywords Change, Narrative, Roleplay mechanics, Coming of Age, LGBTQ+.

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INTRODUCTION

Contents

The following lines constitute a first approach to the reason for the existence of a video game such as the one proposed, justifying its existence and establishing as part of this justification a series of objectives that must be met if the work carried out is to be validated.

1.1 Work Motivation

I like all sorts of narrative media, specially the kind of narrative that someway represents a part of the society that is never showed up. That's why I get so much interested in one of the universal narratives described in the book *La semilla inmortal* [3] when in the subject *VJ1218 - Hyper Media Narrative and Video Game Analysis* the professor Martín-Núñez introduced us to it: the return home. Once the hero has finished their adventure, they has to come back home and accept that they had change but their home had change as well.[1]

I also should mention the concept of "Sensitized ludonarratives" that Porta-Pérez presents in the article *Sensitized ludonarratives. Narrative adventures to promote the representation of minority groups* [27], being those ludonarratives that "promote critical

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[1]In the rest of the document when someone's gender is not specified or it is neutral (neither she nor he), the "they" singular pronoun will be used.

thinking in the player through a complex ludonarrative interweaving under the clear concerns of some designers who seek to convey specific values". Porta-Pérez also talks about *queer games*, those games where the lead role falls on the experience of a LGBTQ+ character and, usually, the developers are also part of this community. As researcher Trépainer-Jobint states about *indie* games that "it is not that these video games seek to differentiate themselves from each other by competing in a market, but that there is no self-censorship or institutional pressure where designers can"[...] explore more sensitive issues such as rape, racism, incest, cancer, depression, transsexuality, etc" [34].

Knowing, investigating and analysing the subject of change in multiple works like *Sandman* [11] and *Doctor Who* [6], I came with the idea of this project. The return home of a young adult who has to fear that change, specially one queer that leaves their house not knowing who they are and came back knowing who they is, but the rest do not. This is a intrinsically *queer game*, a sensitized ludonarrative that due to the context of being a Bachelor's degree, I can express these themes without any censorship.

Navarro-Remesal says in his book *Libertad dirigida. Una gramática del análisis y diseño de videojuegos* [26] there is no actual freedom in video games, but a directed freedom that is what the playable system allows the player do. Everything is contemplated in the rules and the behaviour is guided. This is specially true to narrative games like *Heavy Rain* [9] where the game-play usually reduces to just take decisions. And it is true that no game escapes from the term Navarro-Remesal, but role playing games like *Disco Elysium* [40] or *Baldur's Gate III* [32] let the player make almost anything they can think about. It is from this games where the inspiration for all that encompasses the mechanics come from.

Video games understood as ludonarrative works are composed of three elements that can persuade the player, and the combination of all is what endow meaning to the game: the rules that define the gameplay, fiction that refers to the context of the narrative and story that is what happens in the period the video game occurs [25]. Having these three elements in mind and with no pressure to experiment I want to take the concept of the change to its ultimate consequences: the rules, the fiction and the story must change.

By doing this, I also think is a good opportunity to explore three areas of developing videogames: narrative, art and programming. I think of myself as a polyvalent person, so a project like that might show my skills.

1.2   Objectives

Based on the limited representation of sensitized ludonarratives in the video game industry and the needs to explore sensitive topics related to minority groups described above, the objectives of the project can be taken as those characteristics that allow to transfer the immersion and interaction of the video game to the changes to adulthood. Therefore, all the missions, functionalities and goals that they currently have must be satisfied. These are

- Create and construct a world, characters and basic plot that supports a complex

narrative about change.

- Write and develop a subtle narration that captures and reflexes the complexities of the changes teenagers must overcome in their coming of age.

- Design and develop mechanics that suit the game. Each chapter a new mechanic will be introduced to suit the sensation that the game is changing.

- Develop and program a system that supports this mechanics (dialogues, dice rolls, etc.) and branched narratives based in character' decisions and stadistics.

- Making a game that feels alive and that the player can do what they want and that their decisions are important.

1.3 Environment and Initial State

As mentioned before, the topic of change is not only important in the story but in the rest of the game, influencing also mechanics and art. This might get the player uncomfortable (facing change constantly is unpleasant) so the best way to make the video game more welcoming was to use the Three-Act Model presented in *Story: Substance, Structure, Style and the Principles of Screenwriting* [19].

An story is based in a state of calm that is being disturbed, for the better or the worst. This event provokes a desire to the character to restore the balance, so they start searching for their object of desire, fighting against antagonist forces. In this particular case, there is a conscious desire, but also a unconscious one, as well as there are internal and external antagonist forces.

The Three-Act Model refers to the classic dramatic structure in three acts: the setup, the confrontation and the resolution.
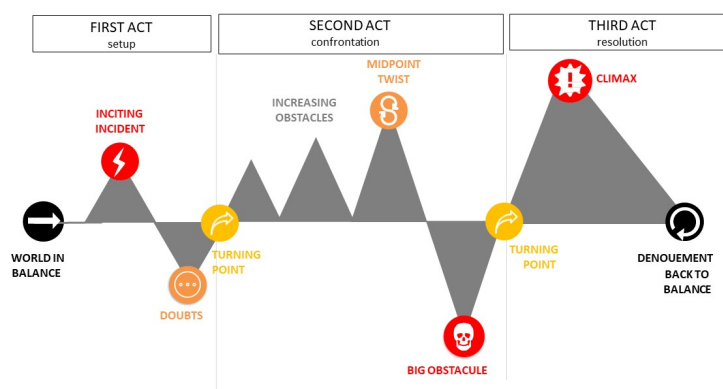
Figure 1.1: Three-Act Model structure.

To resume, the idea was settled down: a game about the change that occurs in 4 days (following the Three-Act Model structure in the first three days and an epilogue in the fourth). Further in this document more details about the narrative will be explained.

1.3.1   Additional Information: related subjects

Considering this the culmination of four years of hard work, there will enumerated those subjects that for one reason or another made this project possible.

- **VJ1207 - Visual Culture and Mass Media.** An introduction to the world of narrative, how to develop the eye to see and to analyse.

- **VJ1215 - Algorithms and Data Structure.** Although the programming taught in this subject is completely different to the one used in this project, this subject is vital since it gives a pretty much deep understanding of logic, programming and data structures.

- **VJ1218 - Hyper Media Narrative and Video Games Analysis.** As mentioned before, this subject has been key to the understanding of complex narratives in video games, how to analyse them and make them.

- **The third course project.** Here are encompassed VJ1222 - Video Game Conceptual Design, VJ1223 - Video Game Art and VJ1224 - Software Engineering. This is the first big project and where key things as designing mechanics, artistic coherence and intentionality or using the engine are learned.

- **VJ1227 - Game Engines and VJ1240 - External Work Placement.** These subjects teach and master the use of the engine this game is made with.

- **VJ1230 - Theory and Practice of Audiovisual Production.** This may seem not be related, but learning how creative project are made in a professional ambient came to be really useful. Moreover, this subject is with difference the one that personally made me develop more creatively. Without it, the idea might never come to my mind and would not be any project at all.

PLANNING AND RESOURCES EVALUATION

Contents

This chapter details the planning followed during the development of the work, as well as the resources that allowed its accomplishment.

2.1 Planning

Given the diversity of research, design, and development processes that would have to be performed in order to test the present study, planning was taken as a priority from the early stages of development, and excessive care was taken. Therefore, even including the time in which all tasks and subtasks have been developed, there are no major changes since the initial planning made in January on the occasion of the delivery of the first design document in the final version, which can be found below. However, it should be mentioned that the priority of things has changed in order to present a more attractive product. This is explained further in this section.

- **Preparation (8 hours):** define the technical proposal, the game design document and organise the workflow of the project.

- **Pre-production (96 hours):**

  - **Investigation narrative (30 hours):** investigate and analyse narratives that aboard similar topics. The main guide to analysis followed is the concepts

learned in the subjects VJ1207, which can be found in *El análisis de textos audiovisuales*[17]. In this same book is referenced the way of analysis used (in point 2.3 *Propuesta metodológica*).

- **Investigation software (6 hours):** investigate and familiarise with the writing software Articy:Draft X.
- **Complete Game Design Document (30 hours):** extend and detail the game design document, including describing all mechanics, narrative, level and artistic design.

- **Production (125 hours):** production of the game per se.

  - **Write narrative script (40 hours):** write the story of the game based in the previous narrative structure made.
  - **Basic programming (38 hours):** make the basic programming structure of a functional game. It includes the dialogue system, the input system, the player's behaviours and the way it relates with NPCs, objects, and environment. Also the user interface, menus and options' programming are included here.
  - **Prologue (10 hours):** the concrete gimmicks of this scene.
  - **Day 1 (15 hours):** the concrete gimmicks of this day.
  - **Day 2 (7 hours):** the concrete gimmicks of this day.
  - **Day 3 (10 hours):** the concrete gimmicks of this day.
  - **Day 4 (7 hours):** the concrete gimmicks of this day.
  - **Mechanic day 2 (5 hours):** the main mechanic the second day, similar to the selection of interesting words in *Do not Feed the Monkeys* [33].
  - **Mechanic day 3 (7 hours):** the main mechanic the third day, turn-based combats that can remember to the energy of *Undertale* [10].

- **Post production (110 hours):**

  - **Art (105 hours):** all the assets of the game. It should be have in consideration that every element changes its visual style every day, so multiple assets should be made for each.
  - **Sound (5 hours):** sound the game.

- **Testing and optimisation (20 hours):**

  - **Testing and optimisation (20 hours):** even though each part of the process has its own time reserved to testing and optimise all, it is important to save some time to check everything is alright.

- **Documents (55 hours):**

- **Biweekly report (10 hours):** the reports that should be made every two weeks.

- **Memory (40 hours):** memory of the project.

- **Presentation (5 hours):** presentation of the project.

Some things should be in consideration about this planning. The first of all is that this planning is made for a full game, so the total hours are 414, no 300. As mentioned before, in order to get a more attractive final product for this project, the art has been given more priority.
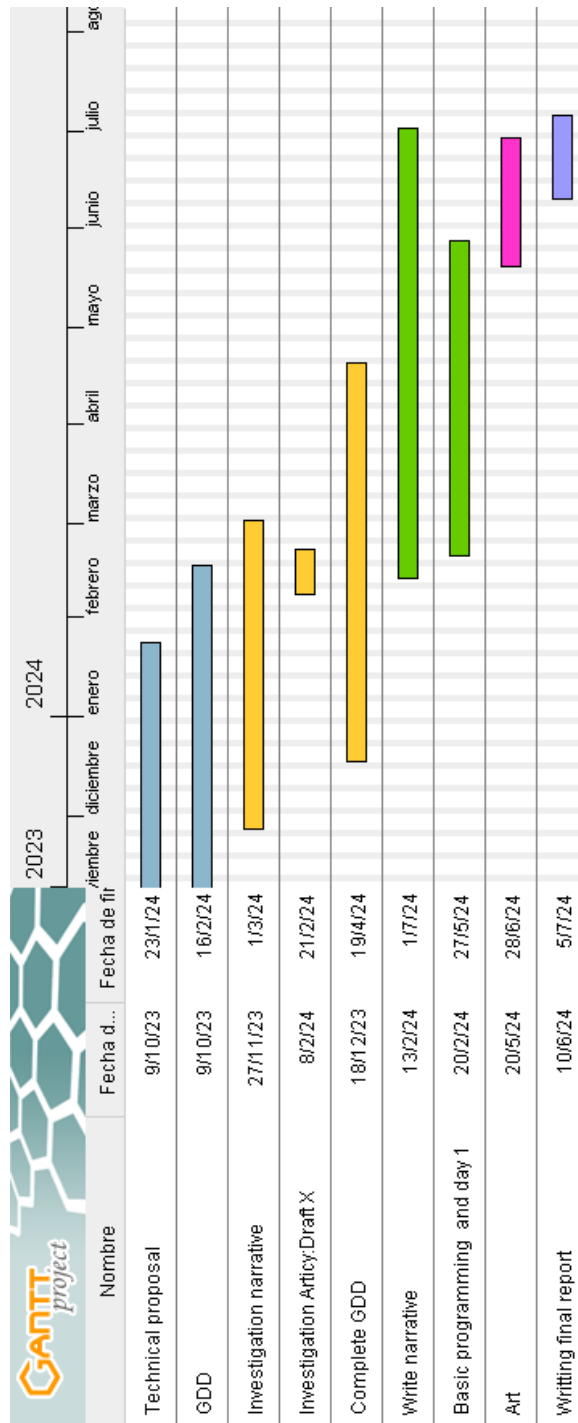
Figure 2.1: Gantt chart of the tasks (made with Grantt Project)

2.2 Resource Evaluation

The resources used to make this project will be divided between hardware, software and human resources, each with an approximation of the price of each one.

2.2.1 Hardware

- **Computer (AMD Ryzen 5 3600, 16GB, GPU Gigabyte GeForce GTX 1659 Windforce 4GB) - 850€ aprox.** The main device used to develop the work.

- **Laptop HP (AMD Ryzen 5 7000, 16GB, Radeon graphics) - 600€ aprox.** A secondary device that will be used to develop the job.

2.2.2 Software

- **Unity 2022.3.19f1 - free for educational purposes.** The engine where the game is made.

- **Articy:Draft X - free trial / 8€ per month**[1] The software used to write the narrative.

- **JetBrains Rider 2023.3.3 - free for educational purposes.** The ide used to program.

- **GitHub Desktop - free.** The version's control program.

- **Krita - free.** The software used to draw and make assets.

- **Google sheets - free.** Used to do the organization of the workflow.

- **Obsidian - free.** Used to organize and write ideas.

2.2.3 Human resources

- **Labour - 3.036€ aprox.** This is an estimation taking in consideration the average junior salary in programming[2].

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[1] Right now, the scope of the dialogues written do not require more than the free trial, but since this project is thought to become a full game, the price should be taken into consideration.

[2] Accordingly to *Glassdoor*[16] the average salary is 21.040€ per year.

3

SYSTEM ANALYSIS AND DESIGN

Contents

This section presents the requirements analysis, the design and the architecture of the proposed work. It also encompasses the design of the interface.

3.1 Requirement Analysis

To abroad the requirements of this project, it is necessary to define what a video game is and its requirements.

A video game needs a *main menu* screen with two buttons, one play button that starts the game when clicked and one exit button that close the application. This screen is the one the player see first so it also must have the name of the game, *The things I said about the stars*, and any other relevant information as credits to the developer. In this concrete case, in the right corner there will be buttons that remit the user to the main developer web when clicked.

For narrative proposes, a cinematic should be played so the player can be situated in the space. Also, must be dialogues to complete the visual information as well as the information of the current state of the main character. This first dialogue and the visual information completes the fictional frame for the fiction, but some set up is needed for the rules. The next dialogue fixes that: its propouse is to prepare the player a more

personalised experience in a diegetic [1] way, so the statistics typical from roleplaying games like the ones mentioned in chapter 1, are determined without the player noticing it. This constitutes the prologue.

The game world is divided in two by the way of controlling the main character: the world, where the character can move with WASD keys or arrow keys and interactuating with characters with E key; and the dialogue scene, where the player can pass to the next dialogue with E key and choose options by clicking the button of the desired reply. No matter what part of these parts the player is, they can use ESC key to open the options menu and pause the game.

The option menu must have an audio button that when clicked shows up the audio options, a video button that when clicked shows up the video options and an exit to menu button that when clicked, return the player to the main screen. When pressing ESC key with this menu opened, it closes itself and resumes the game.

3.1.1   Functional Requirements

The following list is the one of functional requirements that the game has:

- **R1:** The player can start the game.

- **R2:** The player can interact with the dialogue interface of the prologue using click to choose options.

- **R3:** The player can move around the environment wing WASD or arrow keys.

- **R4:** The player can interact with the NPCs using E.

- **R5:** The player can interact with the main dialogue system using click to choose options.

- **R6:** The player can pause and unpause the game by pressing ESC.

- **R7:** The player can return to the main menu.

3.1.2   Non-functional Requirements

Non-functional requirements are those attributes that impose restrictions on design or implementation. The game should have this attributes.

- **R8:** The aesthetic of the game must change every day (cartoon, pixel art, expressionist and life-action).

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[1]Diegetic is refered to those elements that ocurss in the diegesis. The diegesis is a spatio-temporal world depicted in the film. Anything within that world (such as dialogue or a shot of a roadsign used to establish a location) is termed diegetic whereas anything outside it (such as a voiceover or a superimposed caption) is extradiegetic.[29].

- **R9:** The interface must be as diegetic as possible so the player can get immersed in the game.

- **R10:** The player should feel comfortable so the controls must be

- **R11:** The characters must feel alive and with personality.

- **R12:** The game world must feel real.

- **R13:** The story must be interesting.

3.2   System Design

This section presents the logical and operational design of the system to be carried out.

Requirements:	R1
Actor:	Player
Description:	The player can start the game by clicking the *Play* button.
Preconditions:	The player must be in the main menu.
Normal sequence:	The player press the button *Play*. The system loads the prologue.
Alternative sequence:	None.

Table 3.1: Table 3.1: Case of use "Start game".

Requirements:	R2
Actor:	Player
Description:	The player can interact with the dialogue interface of the prologue using the click to choose options.
Preconditions:	The player must be in the prologue. There has to be any dialogue.
Normal sequence:	The player press the button of the chosen option. The dialogue continues to the branch the player selected.
Alternative sequence:	None.

Table 3.2: Table 3.2: Case of use "Dialogue in prologue".

Requirements:	R3
Actor:	Player
Description:	The player can move around the environment using WASD or arrow keys.
Preconditions:	The prologue must have to be ended. The player must be in a scene where they can move. The player should not be talking to a NPC. The options menu should not be activated.
Normal sequence:	The player press WASD
Alternative sequence:	The character cannot move because is colliding with something.

Table 3.3: Table 3.3: Case of use "Move".

Requirements:	R4
Actor:	Player
Description:	The player can interact with the NPCs using E.
Preconditions:	The prologue must have to be ended. The player must be in a scene where there are any NPCs. The player must be near a NPC. The player should not be talking to a NPC. The option menu should not be activated. The NPC must have a dialogue assigned.
Normal sequence:	The player press E when near to an NPC. The dialogue interface is showed and the dialogue starts.
Alternative sequence:	None.

Table 3.4: Table 3.4: Case of use "Interact NPC".

Requirements:	R5
Actor:	Player
Description:	The player can interact with the main dialogue system using click to choose options.
Preconditions:	The dialogue system should be activated. The NPC must have a dialogue assigned.
Normal sequence:	The player press E to advance in the dialogue when there are no options. The player clicks the button of the option they want to chose when there are options. The next dialogue line shows up as well as the options if there are any.
Alternative sequence:	None.

Table 3.5: Table 3.5: Case of use "Dialogue system".

Requirements:	R6
Actor:	Player
Description:	The player can pause and unpause the game by pressing ESC.
Preconditions:	The player must have to start the game.
Normal sequence:	The player press ESC. If the game is unpaused, the game pauses. If the menu is off, the menu shows up. If the menu is on, the menu hides. If the game is paused, the game unpauses.
Alternative sequence:	None.

Table 3.6: Table 3.6: Case of use "Menu".

Requirements:	R7
Actor:	Player
Description:	The player can return to the main menu.
Preconditions:	The menu should be on.
Normal sequence:	The player press the *Main menu* button. The system loads the main scene.
Alternative sequence:	None.

Table 3.7: Table 3.7: Case of use "Return to main menu".
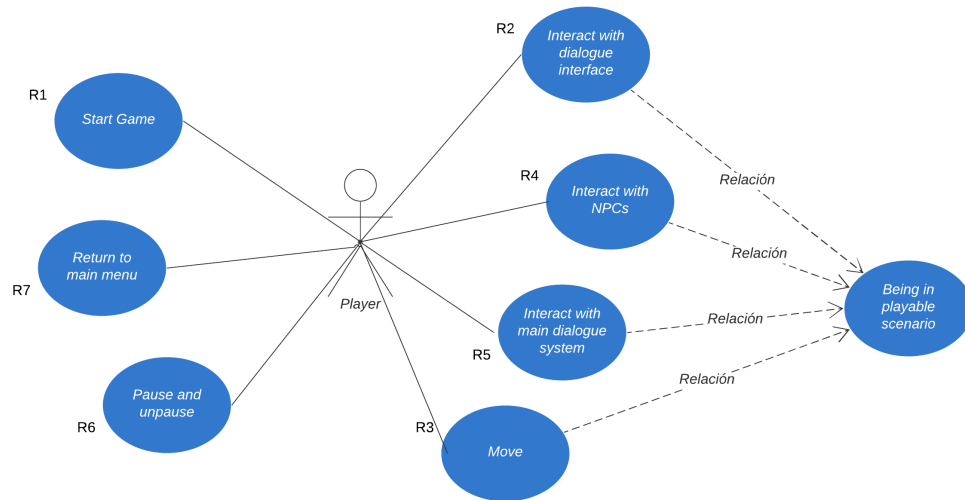
Figure 3.1: Uses case diagram

3.3 System Architecture

This section describes the architecture of the project system. Since this project has been developed in Unity 2022.3.19f, the minimum requirements are the following:

- Operating system

  - Windows 7 SP1+

- CPU

  - x86 or x64 architecture with SSE2 instruction set support

- GPU

  - Graphics card with DX10.

3.4 Interface Design

3.4.1 Prologue

In the prologue, the main character uses a laptop to open a chat. The cinematic made is to show how they get a message and opens it.

When the message is open, the chat pop ups and there is where the dialogue is displayed. The laptop and the message app is a way of making the dialogues of the prologue diegetic.
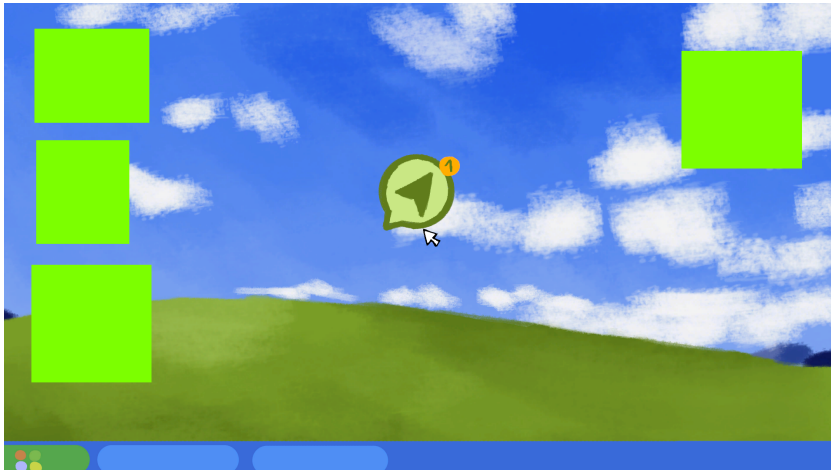
Figure 3.2: Cinematic interface.
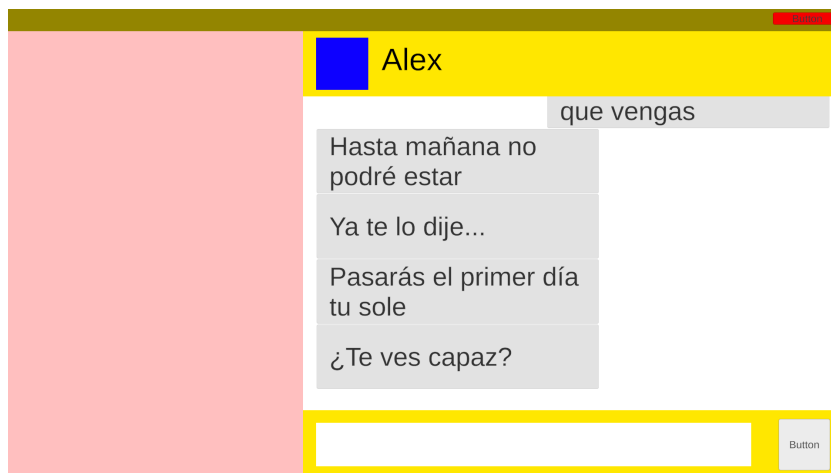
Figure 3.3: Message app interface.

3.4.2   Main

As mentioned before, the user interface must be diegetic so, since the main character always carries a camera with them and there is present the narrative excuse that what they is doing are interviews, the dialogue interface is the camera digital screen. The dialogue choices are in form of buttons at the bottom part of the camera digital screen.

The menus as well as the pop-ups showing information of the dice rolls have the aesthetic of a notebook.

Lastly, the music menu should be a cassette, since the main character has one too. This way, the music the player is listening is diegetic as well.

Figure 3.4: Dialogue system interface buttons.

Figure 3.5: Dialogue system with dice roll pop-up

4

WORK DEVELOPMENT AND RESULTS

Contents

In this section the work developed will be abroad. Since the work made belongs to pretty differentiated topics, it will be explained in its respective subsection.

4.1 Work Development

4.1.1 Narrative Design

For presenting a narrative design, the first that was took in consideration was looking for referents of the topics to abroad: coming of ages, change, returning home.

The works that were analysed (some more deeply than others) were the following: for coming of age, *Last Night in Soho*[39] and *Clerks*[31]; for change, *Doctor Who*[6] and *Sandman*[11].

Also, for the general mood the general work of Edgar Wright and specially the *Three Flavors Cornetto*[1] was taken into account.

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[1]The *Three Flavours Cornetto* is a trilogy of Edgar Wright's movies about comedy with dark undertones. It is composed by *Shaun of the Dead*[36], a film about an zombie Apocalypse and how normal people deal with it; *Hot fuzz*[37], about a cop that is reassigned to a village where nothing happens and has to deal about that change; *The world's end*[38], it is a film of a group of friends that reunite after 20 years to remember the past and drink beer.

Coming of age

Last night in Soho is about Eloise, a young adult that is about to move from their small village to London start fashion collage and not only chase her dream, but hers mother. However, "London can be a lot" as her grandmother said, and she struggles to find her place, developing a copping mechanism of idealise the past, specifically the 60s in London. This mechanism goes to the extreme and last consequences, making her relive the past as Sandy, a young adult that in the 60s was chasing her dream of "becoming the next Cilia Black".

The first half of the movie present us the reality, actual London, as a nightmare: Eloise is a fish out of water and is being bullied buy Jocasta, her room mate. But when she goes to sleep, when she can relive those Sandy's memories all is alright. However, after Sandy gets her first audition to start accomplish her dream, the dark true come to the surface: Sandy will not ever accomplish her dream because she is seen just as a product for men pleasure, she must dance, talk and do anything she is told or she will not be ever a star. In the climax of this loop of drugs, music, and chitchats with men, she is forced to have sex with one of them.

Since this point, Eloise's escape, 60s London, is not a shelter anymore but a nightmare, so she refuses to sleep. That night John, the only person of her school that were nice to her, invite her to a Halloween party and, at the end, they end in Eloise's room about to have sex. In that point, Eloise revives Sandy's experience and she saw her being murdered. Eloise ends having an anxiety attack and the night ends bad. Is in this point when the movie becomes a psychological thriller: the anxiety and fear of older white men who violated and murdered Sandy chases Eloise until she became nearly insane since no one believes her.

The end of the movie is not relevant for the analysis since the thing to be highlighted is the toxic coping mechanism, the escape from reality and the anxiety not only of older men, but the impotence of knowing something is wrong but don't know why or how fix it and anyways, no one will believe you because you are too young to have in consideration but to old to just let your parents fix the problem.

Last night in Soho portraits in ultimate instance a picture of a young woman that do not know how to be an adult, how to fix her problems, how to deal with her mental illness and being overwhelmed about all that.

On the other hand, *Clerks* is a comedy about Dante, a convenience store who is just stucked in his current live. The film is a sequence of normal life experiences with surreal ones in a day with Dante at work. It is the mundane and daily in contra position of the absurd. But at the end Dante will wake up tomorrow and will go to work again, and the next day the same, and then the same.

The message of the film is a critique of what a life without propose is. It is nihilism but also absurdisim. Dante, as young adult, have no place in the world, no motivation and that is why his life is meaningless, but, also, that is why he can give his life whatever mean he wants.

The message of the film resonate more when the context of the film making is known.

Clerks is a low-budget film where Kevin Smith is the director, one of the two producers, the writer, one of the two editors and a secondary character (Silent Bob) in the film. Also the black and white of the film has no artistic ends but budget ones: filming in black and white was cheaper.

Similar happens to the locations, a street, a convenience store, a film renting store. All locations that cost nothing or not a lot.

This film is, in all itself, a message of a generation desperate to find their place. No money, no motivation. They've been raised by their parents telling them that if they work hard they will make it, but it is the 90s and that doesn't work anymore. They are young adults lost and helpless because no one understand what is happening to them.

Change

Doctor who is a British series made in the 60s about an alien who along humans travels through time and space. The series started in 1963 and ended in 1989, with a later movie in 1996. However, after it cancellation, in 2005 Russell T. Davids convinced BBC to reboot the series. In this version the same dynamics where preserved but with a more modern perspective. The analysis made is mainly of the ninth season, having context of the previous ones, with Peter Capaldi as the Doctor and Jenna Coleman as Clara, the companion.

To highlight is that the main gimmick of *Doctor Who* is that every few seasons the Doctor[2] dies and regenerates, which means that the actor changes. This means that not only the face the spectator associated as a character changed, but the entirely of the character. For example, in 2005 the ninth Doctor (interpreted by Christopher Eccleston) is a serious one. The Doctor just made a mass murder (even though the spectator doesn't know) and is angry.

However he meet Rose, the first companion of this reboot and that make him softer. When the Doctor dies in this first season and regenerates, he does into the tenth one, by David Tennant. This Doctor is much more goofy and hyperactive, he has hope and want to see all forms of life. In the second season, Rose continues as a companion but at the end, she dies.

Maybe because she is the first one, maybe because she is the one that helps the Doctor to see the good in the world again, Rose's death is one of the more significant ones for the Doctor. And it is the first time when the main topic of *Doctor who* is massively settle down: change. Not only for the spectators with the change of Doctors, but for the Doctor itself.

Before further analysis, since the stages of change will be explained using examples of both works, *Sandman* should be mentioned.

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[2]Doctor goes with capital D since is the name of the character. For differentiating of which one is speaking the number of Doctor and/or the actor will be mentioned.

Sandman is a comic series which first number was realised in 1989 in which protagonist is Dream, one of the Endless[3]. The story start when Roderick Burgess attempts to obtain immortality by summoning Death with the intention of blackmailing her. However, he makes a mistake and captures Dream for a hundred years, when he finally archives to escape. In the process of that many years, the keep Dream powerless and defendless in a sphere where he cannot escape and without his objects of power (a ruby, a helmet and a bag of sand). When he escapes, he start looking for his objects of power as well as revenge. In general *Sandman* is about changing or dying as will be explained next.

When analysing this two works, similar points came together that are also mentioned in the work of psychologists Prochaka and DiClemente[8], so four stages in the process of change were determinate.

- **Ignore the change.** The main character is forced to a change in their daily life, but they try really hard to ignore it and continue as nothing had happens. Porcha and DiClement refers to this stage as the pre-contemplation or "not ready" one[8].

  At the beginning of *Sandman*, Dream must face the fact that he is being imprisoned one hundred years and everything has changed, the Dream world is not the same and neither is Earth. However, he will fight for recover his objects of power and go back to what he knew, for what was normal for him, ignoring the fact that, even with his objects, nothing will be ever as it was before.

  In *Doctor Who* the main example, for the Doctor, is the death or change of companions. After this loss, in the next few chapters (usually Christmas specials or other kind of special chapters) the Doctor will do as everything is alright, nothing has happened. But "not everything can be avoided" says River Song to the Doctor in *The husbands of River Song*[23]. This a special chapter that is the climax of a seed planted in *Silence in the Library*[20] when the Doctor and the spectators meets for the first time the character of River Song. She announces that she and the Doctor are lovers and she dies in that chapter, so the spectators and the Doctor only knows that at some point, they will be lovers and she will die.

  In the mentioned *The husbands of River Song* it is know that that night is the last one, however, one night in that planet, Darillium, is 24 days. This chapter is a feeling good chapter, an special, that comes after losing Clara, the second most dramatic companion lost after Rose's one. This chapter is a way of not facing change, it is a coping mechanism and a runaway. A hiding from reality. (usually

- **Impossibility of ignoring the change.** The change cannot be ignored and the protagonist must pass to action, but their actions are a way of fixing the past, not of making a better future. This point might be as the contemplation or "getting ready" that Porcha and DiClement point out[8].

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[3]The Endless are a family of not Gods, but more powerful entities formed by the already named Dream, Death, Desire, Despair, Delirium (who was before Delight) and Destruction (who at the beginning of the comic has abandoned the family and his duty as being the personification of destruction).

In *Season of Mists*[12] Dream travels to Hell to free a former lover, Nada, whom he condemned to torment thousands of years ago. There, Dream learns that Lucifer has abandoned his domain. When Lucifer gives Hell's key (and therefore, the ownership of Hell) to the Sandman, Morpheus himself becomes trapped in a tangled network of threats, promises, and lies, as gods and demons from various pantheons seek ownership of Hell.

Dream realise that his actions had have consequences and that the only one that can fix them is him. So he tries fixing the past. Also he must face that one of his biggest enemy, Lucifer, has decided to abandon hell and leave it to Dream. In this point Dream come to realise that even his most old enemy has changed, Lucifer changed and made a choice that they wouldn't do before.

Heaven Sent[22] is the episode that comes after Clara's death. He remembers what happened and will blame himself of her death[4] and must grief. However, the process of grief is avoided in this chapter.

Heaven Sent is situated in a controlled space of torture based in fear of dying, because a monster that is always chasing the Doctor, with the finality of learning something (similar of what happens in the *Saw* series, specially in *Saw II*[5]. However, this learning is avoided by the Doctor since the real finality of the trap is not the mentioned learning (although being some subtext at the beginning) but confessing one of the Doctor's unspeakable secrets. This makes the torture a hell, since when the monster reaches the Doctor, and it will, the trap restart and the Doctor will have no memory. It is a *Groundhog Day*[28] that when the Doctor knows what to do, he will die to re-spawn again an live it again.

At the end of the chapter, he manage to survive but thousand of years has passed and for him, Clara's death was yesterday. He is trying to erase the past and fighting it, but he won't permit himself grief and accept the change.

- **Facing the change.** In this case the main character knows that change cannot be avoided, the time will pass and decisions must be made whether they wants or not. They must face the past decisions and actions and act in pursuit of a better future. Porcha and DiClement talk about six points, since i made four, this item relates to what they call preparation and action[8].

  Dream's son is Orpheus, and in the past he took a decision about his son but he had not thought if it was a right decision or not, was avoiding change. However, in *Fables and reflections*[13] he is forced to make a decision.

  In *Brief lives*[14], all the Endless family has decide to forget about their brother Destruction since he left family. However, now change is inevitable and Dream,

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[4]In season eight and nine of *Doctor Who* there is the phenomenon of the "Clarification" of the Doctor and the "Doctorification" of Clara, being the climax of it *Face the Raven*[21]. In it, Clara dies because she makes a move the Doctor would do to defeat the enemy but without knowing the real consequences of it.

together with Delirium who had face a big chance once[5] go on a trip (physically and metaphorically) seeing known life's and how those have changed. This trip helps Dream to face his decision about Orpheus and kill him, as he was asking.

After the hell of *Heavens Sent*, Clara is dead, two billion years have passed and she still. But the Doctor in his incapacity of accepting that since he could not face it, he has become insane and he will try to avoid that change (Clara's death) to the last consequences. He is eager to break space and time just for not accepting Clara's death.

The Doctor become a thread and he is no longer himself. In an earlier chapter that season *The Zygon Inversion*[24], the ones who cannot accept change have their memory erased and they let continue their path, however, the ones who get it are part of something bigger. Clara (that due that break in space and time now is alive but is not permanent) has understood that her time is over and must go, because it is beautiful and sad.

- **The change and its acceptance.** Change is inevitable, must be and has been. Now it is time to accept the consequences of it. Porcha and DiClement in this case talk about maintenance and termination[8].

  If it is true that Dream knows that he must change, he cannot. He is the same after all. However, change is inevitable and ineffable. That is why old Dream must die so a new one can born, so the change can be accomplished.

  For the Doctor, the impossibility of accepting the change and go to the end of time (literally) to save Clara just let him one option. Change is inevitable, Clara is dead, she is just "alive" between one heart beat and the next one. So, if the doctor cannot change, he will die (or at least the memory). Being the Doctor's memory erased makes him grief-less, he forget what change is and the dilema of it. However, world has changed, Clara is not there anymore, and the doctor has changed too, he has forgot Clara.

General mood

Briefly mentioned before, Edgar Wright's work have lots of thinks that make it unique, but one of it is the ability to talk about serious topics but still being a comedy.

In *Hot fuzz*[37] the final plot twist is that there is an evil cult that is killing all the people of the village, but the happens to be all the older people who do not wanted the village to change. Moreover, one recurrent gag in the film is the apparition of a swan that at the end, helps with the resolution of the plot.

It is the perfect mix of absurd things and serious things, since the beginning of the movie is about Nicholas being gas lighted and belittled while he tries to adapt himself to the change of being designated to a small village.

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[5]As mentioned before, Delirium used to be Delight but as society change, so do the Endless.

Application to the video game

After the analysis done, the four days correspond no only with the Three-Acts Model[19] but with the analysis made. The main themes are, as mentioned before, the coming of age and the change.

Since these topics are pretty serious ones, the mood mentioned before is important and it will give the game the "meta"[6] element: the reailty is that the main character is being used as a guinea pig for some malevolent investigation by aliens, so they have been put down to sleep and they is living in a simulation based in their memories.

That being said and taking into consideration the followed structure is the referenciated in the first chapter in the Figure 1.1, the main narrative structure consist of the following.

- **Prologue.** It is the first contact of the player with the game. In it there is a dialogue that situates the why the main character is doing and where, as well as a bit of context of them. There is also a test that works to give the main character statistics (dexterity, strength, intelligence and charisma) in a diegetic way.

- **First act: day 1.**

  – <u>World in balance:</u> the return to home is something comforting. Nothing has changed and the main character is comfortable reliving their childhood memories, so happy has they remembers. Their friends of childhood receive them as no time has passed. Their parents are affectionate and interested in them. Everything is just as they remember it.

    It is given some space to the player to familiarise with the basic mechanics, with the rules, the game world and the characters.

  – <u>Inciting incident:</u> an agent from outside the world presented (the village) comes in, the protagonist's partner. He is going to highlight the fact that it is a bit strange how all the characters in the village behave. The group of friends still talk like 16-year-olds, even though they are in their early twenties, and tell the same anecdotes that happened back then. He also reminds they that their parents never approved them leaving home to study, and this sudden change of attitude is strange.

  – <u>Doubts:</u> this conversation will generate a series of doubts and question everything seen on the first day.

  – <u>Turning point:</u> it is at night, after the conversation with their partner and when the character goes to sleep, when they processes all this and through sleep begins to see certain incongruities in the village. They remembers parts of their past that they had kept back and did not remember.

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[6]Metafiction is a form of fiction that emphasizes its own narrative structure in a way that inherently reminds the audience that they are reading or viewing a fictional work. Metafiction is self-conscious about language, literary form, and story-telling, and works of metafiction directly or indirectly draw attention to their status as artifacts.[35]

- **Second act: day 2.**

    – <u>Increasing obstacles:</u> in this point it is introduced the new mechanic of comparing inconsistencies in the characters' story with the environment, so that the player and the main character realise that there is, indeed, something wrong.

    – <u>Midpoint twist:</u> the min character comes to the conclusion that they is going to discover what is happening in the town, no only because of the documentary[7], but for the sake of their loved ones.

    – <u>Big obstacle:</u> this decision leads the main character to risk their life to go at night into a building guarded by who they think are their enemies because hiding something.

    – <u>Turning point:</u> the main character reach a secret room that looks like it is outside the reality they know where there are lots of cameras watching the village, but more specifically, the main character and what they does. Their entire trajectory thees two days is recorded and, at the end, everything turns black because a hit in the head.

- **Third act: day 3.** The main character wake up in a dream world in which all the moments in the first two days are relived briefly but like how they really happened. There is a deidealization of the past.

    – <u>Climax:</u> after realising of this idealisation, the main character must face to the most painful memories, answering questions like "why they left their house", "why they were worried about returning", "is returning actually something good", "what is they doing there", "has they changed or has been the rest". After this confrontation with their inner daemons, the illusory curtain falls.

    – <u>Denouement:</u> this is the point in the story where everything about the supernatural events is explained. The meteorite that fell years ago brought alien life forms that gradually grew to the point where they were able to think and develop certain technology. It is just when the protagonist arrives that these aliens decide to take a hostage in order to investigate and understand the human brain, so they connect them to a simulation device where they recreate the memories of the people as the subject remembers them. At this point the player (and the main character) are given the opportunity to erase their memory of this experience, and they will not know what happened, so all the pain suffered will not have to be lived, or to remember everything and deal with it. Knowing that everything has changed, they have changed, the past will not return.

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[7]The excuse of the returning home is that the main character has to do a documentary about a meteorite that fell years ago.

- **Epilogue: day 4.** If the character choose to wipe their memory, they will experience something similar to the prologue (without the personality test) and the actual arrival home.

  If not, the main character and their partner (who will be supporting them throughout the game, except for the climax when they confront themself) walk back to their parents' house, wondering what the future holds, whether their family will really accept they, but knowing that whatever the answer is, they is they and that is the most important thing. They have learned to accept themself.

Characters

As important as defining the bases of the story is defining its characters.

- **Val (they)**

    - **Rol.** Heroe.

    - **Relevance.** Protagonist.

    - **Motivation.** Make a documentary about a meteorite that fell in the village years ago.

    - **Appearance.** Reminiscence of goth culture. See Figure 4.5.

    - **Biography.** Born into a traditional village family, Val decides to leave the small to leave the small village where they grew up to go to the big city to fulfil their big dream. After a few years they is forced to return due the need of making a documentary. When they returns, they finds that everything is just as they remembers it before she left. Everything is the same. Despite having grown up in a family that loved them, their traditionalism prevented them from knowing who they was and from truly developing as a person until he left home, not only to fulfil their dream, but also to be able to be themself.

- **Alex (he)**

    - **Rol.** Helper.

    - **Relevance.** Secondary.

    - **Motivation.** In the story he accompanies his partner, Val.

    - **Appearance.** Reminiscence of new wave culture. See Figure 4.6.

    - **Biography.** He has always lived in the city and although he has had his ups and downs, he has grown up in an environment that has allowed him to express himself freely.

    - **Story.** He is supposed to arrive on the second day, but for the player an Val he manages to arrive the first day. This would mean that although Val believes he is in the village, he is not really in the village, but he is not really there and it is only the spectator who knows it, generating a certain tension.

- **Sam (she)**

  - **Rol.** Helper.

  - **Relevance.** Secondary.

  - **Appearance.** Reminiscence of coquette culture. See Figure 4.7.

  - **Biography.** The eldest in a family where the mother died when Sam was 10 years old. At that time, she became the matriarch and the one in charge of the house. Her father works at night and sleeps during the day, so she takes care of her siblings. From the age of 14/15 onwards, her routine consisted of doing housework early in the morning, taking care of her siblings (with whom she is 5 and 7 years old, who at the time were 10 and 8), taking them to school and going to school herself. When she left from school, she would pick up her siblings, made lunch for her, her siblings and her father, because in the afternoon she took her siblings to the few extracurricular activities that they could afford. they can afford. At that time her father would eat, get ready and leave for work before she arrived. she arrived. Meanwhile, she took care of the shopping and household chores. She would pick up her siblings and make dinner, put them to bed and try to study, only to fall asleep and go back to work.

  - **Val's vision.** Sam is their first love. Samanta was the stereotypical perfect girl, who got good grades, was popular and had a lot of friends, something unattainable for they even though she treated them well, without necessarily being friends. She always tried to keep her family and how hard she tried, as she tried to be just a normal girl.

- **Esther (she)**

  - **Rol.** Helper.

  - **Relevance.** Secondary.

  - **Appearance.** Reminiscence of uniforms and schoolar culture. See Figure 4.9.

  - **Biography.** Since she was a little girl it has been clear to her that she was different from the others. However, due to her normal physique and the way she dresses, she hasn't stood out too much at school as different. She always tried to escape from home to hang out with her friends (Sam among them) and she always avoided doing school work. At a certain point she meet Andrea and started to make a relationship with her. Her grades, already mediocre, worsen until her parents start to take action, discovering that their daughter is best friend with a girl who is distracting her. They forbid her to see her, to which the girls respond by running away from home.A few days later they are found and the girl tries to explain everything to her parents without success, and forbidding him to see his then girlfriend forever because "she get over the

nonsense about liking girls". Eventually they leave the village to go to the city to live a life together.

– **Val's vision.** She is a cretin who has always treated them badly. She has over her shoulder and thought she was better than them.

- **Esther's parents**

  – **Rol.** Helper.

  – **Relevance.** Tertiary.

  – **Biography.** A failed couple. The husband is never at home due to work, the wife takes to drink to get through the day at home as a housewife. To everybody they are a perfect couple, partying and getting along with everyone, but in reality the family is falling apart, especially since their daughter ran away. Hyper-strict parents.

  – **Val's vision.** They have never given them a good feeling, but there have never been reasons to judge them. They have never spoken, they don't know each other especially.

- **Andrea (she)**

  – **Rol.** Helper.

  – **Relevance.** Secondary.

  – **Appearance.** Reminiscence of y2k culture. See Figure 4.8.

  – **Biography.** She has always used her beauty to her advantage. She usually behaves like prick and is of the popular girls group. She was transferred half a grade at the age of 16. She dislikes her parents even though they have always supported her in everything she has done, but deep down she is a very insecure person who has created a mask and is and is unable to take it off for fear of being rejected. When she meets Esther, she is the first person she manages to open up to and she begins to mature and stop being so insecure until her parents reject her. At that point she came to her parents and they support her in every way they can, backing her decision to leave the village in the future and even offering to host his girlfriend. Nowadays, she visits the village often to look after her parents and is a much kinder and a more self-confident person.

  – **Val's vision.** A prick that has always treated them badly and that has make them feel bad about their appearance.

- **Andrea's parents**

  – **Rol.** Helper.

  – **Relevance.** Tertiary.

– **Biography.** Ideal couple. The father change of city after meeting his actual wife to start a new life. Their daughter worries them since she adapts very badly to her stepmother and to the new environment in general. This happens until Andrea meets her girlfriends and her parents are happy to see her well and support her in all they can, although they don't get it a lot.

– **Val's vision.** They do not know them but they seem nice.

- **Major (he)**

  – **Rol.** Obstacle.

  – **Relevance.** Antagonist.

  – **Motivation.** To prevent people from sticking their nose too much into the meteorite subject.

  – **Biography.** Not much is known. It is a figure of power that appears as representation of an obstacle placed by the aliens so that Val does not investigate about the meteorite.

Game Mechanics

The main game play, as mentioned, is a 2D conversational adventure with RPG components with multiple dialogue options that will be unblock depending on the statistics of the main character or dice rolls.

There are 2 kinds of statistics, the ones that will make possible some actions or conversations through a dice roll (intelligence, charisma, strength and dexterity) and the ones that make some dialogue options appear (the alignment: good, neutral, bad). Both kinds of stats will be decided through the little personality test mentioned above in the prologue, since it does not have only a narrative purpose, but a mechanic one too. Having this in consideration, the way of having different dialogue options is the following:

- **Normal dialogues.** Normal dialogues options that ramify into some other options.

- **Roll dice dialogues.** Some dialogues might need a dice roll to determine if the dialogue, or action, is done correctly. These dialogues are related to a certain stat, (intelligence, charisma, strength or dexterity), and the number of the stat will determine the possibilities of success. In a success something will happen, in a failure other things will. However, this option will be always available and be possible even though the stat that is related is a 1. This kind of dialogues are active ones, the character does an action, rolling a dice, to do the dialogue.

- **Alignment dialogues.** Other dialogue options will not appear at all if the alignment is not the correct. There are three alignments and if the character's alignment is "good", "bad" options will not be shown. However if this character chooses a

"neutral" option, their alignment will shift to the point that eventually their align-
ment will be "neutral" and all three kinds of options will be shown. This kind of
dialogue is passive since the player will not know about this mechanic and will not
be shown at all.

- **Other dialogues.** At some point in the second act, the character will be able
  to pick up objects. With these objects the player will come to some conclusions
  about something, unlocking new dialogues options.

Explained the main mechanic, the dialogue mechanic typical from RPG such as *Disco
elysium*[40] or *Baldur's Gate III*[32] (Larian Studios, 2023), the game is about change
and the mechanics are meant to reflect that.

- **Day 1.** Since day one is for the player to get comfortable with the main mechanic
  as well as the environment and the story, there are no changes. This decision, as
  well as the next ones, follows the narrative.

- **Day 2.** This day the new mechanic is that the player will have a way of interacting
  with the environment objects and making a conceptual map that will allow them
  to have concepts and make relations with the inconsistencies the NPCs says.

- **Day 3.** Since the character has to fight themself, the mechanic inserted will be a
  simple card fighting game similar to *Inscryption*[15].

- **Day 4.** There are no new mechanics since the change has been accepted.

4.1.2   Game Art

Since the game world must change, the art should do so.

- **Prologue and day 1.** Similar to any conversational adventure, the first day has
  a comic style similar to the aesthetic of *Scott Pilgrim Takes Off*[18].

- **Day 2.** Since it starts to be notorious that the main character is in a simulation, a
  pixel art aesthetic will be presented. The inspiration is the style of *The Red String
  Club*[7], a medium pixel with enough detail but not too small to lose the pixel art
  effect.

- **Day 3.** As mentioned above, day 3 is more expressionist and tries to reflect the
  subconscious, so the inspiration chosen is the eclectic style of *Puella Magi Madoka
  Magica*[30] in the witches' labyrinths. This style is aggressive since the change has
  to be made even though the character does not want to.

- **Day 4.** The fourth day must be a mix of the first and second style before leaving
  the simulation and a live-action style with real footage after leaving it. Similar to
  games such as *Her story*[4] or *Inscryption*[15] does.

Figure 4.1: Frame of Scott Pilgrim Takes Off

Figure 4.2: Frame of The Red String Club

Figure 4.3: Frame of Puella Magi Madoka Magica

Figure 4.4: Frame of Her Story

Art developed

As mentioned, some art has developed to better understanding of the project. The character made are based in aesthetics to make much more contrast between them and make them more recognisable. Also, the main character has no colour to emphasize the "fish out of water" sensation (Figure 4.5).

Figure 4.5: Main character: Val

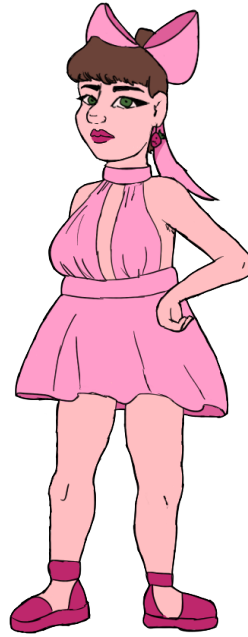Figure 4.6: Character: Alex

Figure 4.7: Character: Sam

Figure 4.8: Character: Andrea

Figure 4.9: Character: Esther

4.1.3 Programming

The game is programmed with the new input system of Uniy and it uses lots of UI elements since the most important thing is the dialogue. To write the dialogues the software Articy:Draft X was used and with help of the library that has in Unity, all was translated into the interfaces. However, Articy:Draft X is a very potent narrative writing program but with a pretty complex interface that was to be learn before start using the program. It also has limited programming that had to be put in the correct places to be able to translate the desired behaviour to Unity.
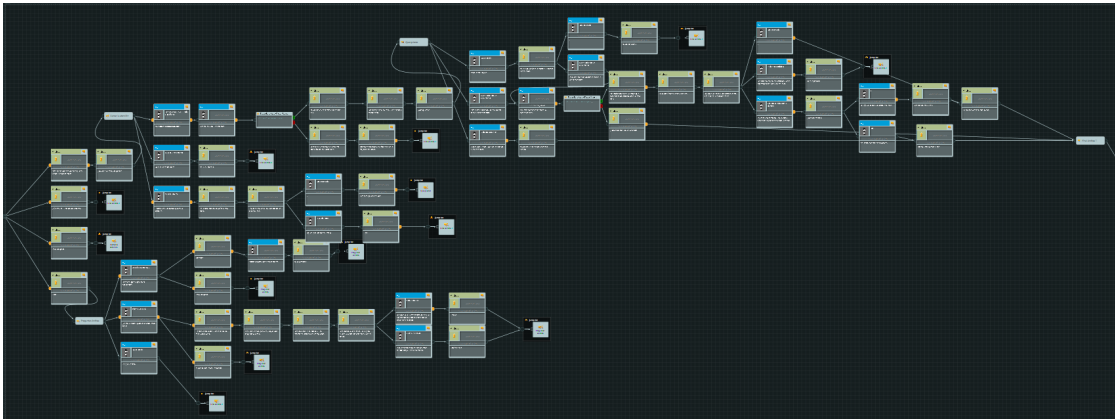

Figure 4.10: Capture from a dialogue written in Articy:Draft X

In Unity, three different implementations of the dialogue system were made since the prologue uses two different configurations that are different from the main one too.

Something to have in consideration is that the programming has been done in the more generic way to be able to reuse it in many parts of the game: menus, NPCs, interfaces, etc. are prefabs that can be used in several screens.

Since the dialogue canvas is the most important one, it has been used two cameras with different post processing effects to archive the desired effect of a early 2000 video camera with some noise and with blue undertones, and the post-processing of the background blurred, so the focus is in the camera. . All this was done with cinematic cameras that changes between the two of the dialogue system or the one of the main world when desired.

The dialogue system shows the text when there are no options, but when branches are presented they show up in form of buttons for the player to choose and, when a dice roll option is selected, a pop-up appears with information about it. Similar effect happens when a passive roll is made.

Figure 4.11: Capture of the Dialogue System.

Figure 4.12: Capture of the Dialogue System.

4.2 Results

The main objective of this project was to do the bases of a video game with the previously mentioned characteristics, focusing the project in the narrative. That been said:

- It has been constructed a world with characters that have their own personality and the basic plot was been written.

- As expected, there are not much dialogues, but there are a general structure and understatement of how to write them so replicate that would not be difficult. However, there is a detailed general story line.

- Although the mechanics and designed but not developed, they may suit better than expected the tone of the game.

- The programming is developed and generic as expected to be able to expand the code as much as possible in an easy way.

- It is difficult to prove that the game feels alive with so little dialogues, but the ones that are written reflect the personality of the characters and let the player reflect on the inevitability of the constrains in freedom in games talked in the first chapter of this document.

- Original art has been made successfully.

The tasks and sub tasks were done successfully also, although the possible changes of priority mentioned earlier.

- There has been performed an extensive investigation in narrative and the software to be used.

- There was done a game design document that details the game.

- The simple structure made for the game design document was extended into a more complex narrative.

- All the basic programming for a video game was done.

- The prologue and the first day were successfully programmed.

- The rest of days and mechanics weren't programmed due to give more priority to art.

- Interface items and characters were designed and created in a style similar to the referenced in Figure 4.1 for day 1.

- All the progress of job is detailed in documents.

In conclusion, all the job presented are the basis of a game that could be easily made reality with more time since always the idea of expanding this project was there.

The playable project is in itch.io in the following link: https://albertoalansa.itch.io/the-things-i-said-about-the-stars.

5

Conclusions and Future

Contents

In this chapter, the conclusions of the work, as well as its future extensions are shown.

5.1 Conclusions

This project is the culmination of all things learned during these four years academically and personally. All my knowledge has been tested in every way and field the degree had teached me, from programming to art.

Inconveniences during the development are inevitable but overcome them and search for practical solutions is the key: at the end all objectives settled in chapter 1 are completed in a satisfactory way.

However, it is true that I have been always pretty active in networking and other projects apart from University, participating in Game Jams and similar events. But this is in some way thanks to the degree, for proportioning a adequate environment to develop myself, as I said, in several fields.

This is not only a final degree project, but the the cherry on the top of this stage of my life.

5.2   Future work

As mentioned multiple times, since this project are the basis, it should be continued to be, at least a demo. However, since this game is not made to sell but to tell a story it is very possible that in a future the full game will be realised.

The more immediate intentions are to develop a playable demo in order to present it to the game developer community in the event Indie Dev Day[2] that is celebrated in Barcelona in September, making *The things I said about the stars* my presentation letter to the industry I'm eager to work in.

In this demo the idea is to get finished Day 1, since at the end of it there is a little cliffhanger, which I think is the perfect point of ending it.

Another event that might be interesting assist with a more finished product the next year is Guadalindie[1] in Málaga that is celebrated in May. Since there is more time, a bigger demo or even the full project could be presented in this event.

Moving from this particular project, the analysis I've made to all that media and the concept of "Sensitized ludonarratives" is something I've became pretty interested in so I plan to continue investigating about these topics in all media.

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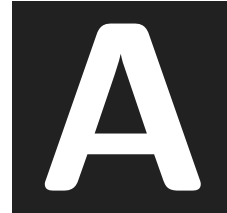
SOURCE CODE

The source code of the project is hosted in the following GitHub repository. This repository does not have any executable, just the code. For playing the executable must check the itch.io page.