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BEN'S CRAZY DAY

Report

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**TecnoCampus
Mataró-Maresme**

Dedictory

Dedicated to all the people that have helped me during these months of work.

Resum

“*Ben’s Crazy Day*” és una aventura gràfica 2D interactiva que utilitza l’opció de *Youtube* per crear la interactivitat. La història explica un dia en la vida del protagonista. Els usuaris poden triar entre diferents opcions al final de cada escena. Segons les decisions preses s’arribarà a un dels 6 finals que existeixen. L’objectiu principal és que el meu producte pugui permetre al usuari passar una estona entretinguda. En el moment audiovisual actual és important que els usuaris tinguin el control total del que volen veure. Jo vull que els usuaris tinguin la sensació de que ells decideixen en tot moment.

Resumen

“*Ben’s Crazy Day*” es una aventura gràfica 2D interactiva que usa la opción de *Youtube* para crear la interactividad. La historia explica un día en la vida del protagonista. Los usuarios pueden elegir entre diferentes opciones al final de cada escena. Según las decisiones tomadas se llegara a uno de los 6 finales existentes. El objetivo principal es que mi producto pueda hacer pasar al usuario un rato entretenido. En el momento audiovisual actual es importante que el usuario tenga el control total de lo que quiere ver. Yo quiero que los usuarios tengan la sensación de que ellos deciden en todo momento.

Abstract

“*Ben’s Crazy Day*” is an interactive 2D graphical adventure that used the Youtube's option for create the interactivity. The story explains a day in the life of the main character. The users can choose between different options at the end of each scene. According to the choice, the user arrives at one of the six different endings. The primary goal of my product is that the users could spend a good time playing with the interactive story. Currently, in the audio-visual sector is important give at the user the full control over what want to watch. I want that the users have the feeling of total control with all the important decisions.

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1. Objectives

Below I will show you some of the basic aspects of my project:

1.1. Purpose

The principal purpose of this project is the creation of a 2D interactive animation. “Ben’s Crazy Day” is a graphic adventure with six different endings and many combinations. For make the interactivity I want to use the YouTube [1] option.

1.2. Finality

The finality of this project is the exploring of the actual animation world. I want to learn about the most used software. Nowadays there are a lot of software that allows create a simple animations and I want to prove that is possible to be an animator and create interesting stories with a very limited resources. Also I want to make an innovative product to allow users have fun watching my story.

1.3. Object

The final product is a graphic adventure with six different endings and a lot of combinations. For make the interactivity I want to use the YouTube’s option. For make the animations I need to use Adobe Illustrator, Adobe Photoshop, Adobe After Effects and Final Cut.

1.4. Scope

When the project has been finished, the user will be able access whenever and wherever. They will be able to start the story and decide which path to take in each of the scenes. The scope of this project is global. The user will have full control of all the situations.

2. Briefing

In this part of the project I show all the things that motivates me to make this project

2.1. Motivations

For years I am a big fan of the animated series. Especially with the emergence of YouTube, I became a follower of Flash series. I remember that it was an Internet boom. Many people followed all the animations series. Since then I have always wanted do something like that. I wanted to create a character and animate it. I wanted that YouTube's users could spend a good time watching my productions.

2.2. Target

My interactive animation is addressed for all audiences. It is a fun project that uses interactivity, so that all users can play. Besides the thematic is not offensive. Also you can enable subtitles in Spanish and Catalan. So more people can enjoy my project. Although all people can use my project, I think that my main audience are the youth between 15 to 25 years. They are ones that most use YouTube. Also they watch animated series.

2.3. Product objectives

My main goal is to create an interactive 2D animation. My project has six different endings and many possible combinations. I want that the users can choose constantly.

Another goal is to try to learn more about After Effects software. I want to learn the drawing techniques, and learn about the techniques most used for created the most successful series animation. Really I want to make a good quality product for show it to the companies in the future when I will search a job. I want to incorporate a fragment of this project on my demo reel.

Another very important personal goal is encourage people who love the animation to make their own productions and projects, because nowadays there are a lot of informatics programs to do that with only a computer.

I never imagined that I would make a 2D interactive animation. You only need time and hard work. If someone sees my project and are encouraged to do something similar, for me will be a success.

2.4. Inspiration references

This is the first time that I made an interactive 2D animation. Whenever you start a new project, is necessary to have some reference. Any audiovisual project needs some example or reference.

Before I started my project I did a search for references, productions like the TV serie "Recess" [2] ("*La banda del patio*" in spanish) or web series like "*Niña Repelente*" [3] or "*Cálico Electrónico*" [4]. Besides I did a search of interactive videos that you can see in the investigation section, specifically in the page number 12 of this memory.



Figure 2.4. Covers of "Recess", "Niña Repelente" and "Cálico Electrónico".

3. Investigation

The most important part of the pre production of my project has been the collecting of information about the interactivity, the most feature of my final project.

Before I start the project I decided to document myself about the interactivity. I think that it is good to do a little research to learn more about this opportunity. I wanted to know the difficulties before to start the project.

This part of the project contains the most significant part of the collected information.

3.1. The Interactivity

The main feature of my animation is the interactivity. Below I will explain some of the essential aspects from such feature.

3.1.1. Definition of interactivity

Interactivity is a term widely used in multimedia projects. It really is a feature highly desired to achieve by part of responsible for any audiovisual project since it usually makes the difference between a good job and others more innovative.

Interactivity in a multimedia project can be defined as the ability to speak with the program, using research, investigation and experimentation. The interactivity is more powerful than traditional methods to catch the attention of visitors. One could also say that interactivity is a dialogue between user and content where the design and performance are the main factors to attract the user's attention. The interactive projects are successful when the user connects perfectly with the product.

There are three levels of interactivity:

Reactive interaction: interactivity who is limited to a single two-way communication in between. For example would interactivity where the user can answer questions or choose from a range of options. It is considered the lowest level of interactivity that may occur.

In the interactivity within an animation (as the case of my final project) can be said to create non-linear stories, allows users to play with the story, and this allows the story does not follow a line as scheduled (as usual animations), because there may be many more stories within a single frame.

Selective interaction: Interactivity is expressed through three properties: the hypertext, the documentation and the customization. This type of interactivity is more focused on the website, where links can create multi-level information within a website. A practical example of this type of interaction is that the user issues a query and the multimedia project has the answer.

Active interaction: this type is considered a mixture of reactive and selective interaction. Also called three-way interaction. In summary it can be said that it is action, reaction and the second reaction. An example of this interaction could be a user uploads a video, another user commented this video and the user who uploaded the video gives an answer to previous comment.

3.1.2. Origins of interactivity

The interaction term was first used in the thesis published in 1985 and 1986 by teachers Shavelson, Salomon and Hawes [5].

They understand interactivity as the presentation of multimedia that could contain images, text and sound (the three elements more used in this years in the projects with a high degree of interactivity).

Years later used more this term the authors John Barker and Richard N. Tucker, expanding the definition and opening a discussion on the evolution of the concept.

They said that the media is based on an interactive dialogue between the user and content. The design and performance are major factors. The interactivity allows capturing the attention of visitors. However, the success of the product depends on the person, receiver or user, when gets totally related to the presentation or project.

Usually in many audiovisual and multimedia projects is used often the term “look and feel” to refer to the specifics of a computer system's user interface. Using this metaphor,

the "look" refers to it is visual design, while the "feel" refers to it is interactivity. Indirectly this can be regarded as an informal definition of interactivity.

So you can say that people have started to use the term interactivity, since in this technological age in which we are, the interactivity is one of the most important features.

Nevertheless I think that interactivity is a powerful tool. I think being able to create so many things and achieve engaging the user can achieve great products. My opinion is that interactivity is a feature with great potential in the multimedia and audiovisual projects.

3.1.3. Advantages and drawbacks of the use of the interactivity

The emergence of the interactivity in the audiovisual and multimedia projects was a major change. Like all great events, this supposed advantages, but also some handicaps.

We can say that the main change that is obtained with the use of interactivity is that the user goes from being a mere spectator to become an important element of the product. This achieves greater monitoring by the audience. The user goes from being a passive element, which just is watching the project at an active element that can change what's going on.

With the application of the interactivity, the projects become a game. The productions are more interesting for young people and adult, and more attractants and attractive for the young children.

When we use the interactivity in the narrative histories, the number of situations and facts are increased.

The author's can open their minds and try to imagine great stories. It is not necessary create linear stories. When we use the interactivity into the projects, the ideas are more dynamics and the final result is much more open, with many possibilities and many endings.

The production is converted into an original and innovative work. The user always thinks you're seeing something new. In addition to giving users the power to decide, the

author ensures that visitors are enjoying with the product because the users are making the project with their tastes.

However you can say that making a product with a high degree of interactivity means more effort by the creative head than if it were a traditional work.

This happens because when the authors should imagine a story interactive, they must be think the possibilities, and therefore they must to work about different ways the user can choose. This means longer hours of work, so the production is more expensive and more entertaining than a conventional job.

3.2. Some areas where the interactivity is present

The interactivity can be found in different areas. Then we will see the areas more highlights.

3.2.1. Interactive films

With the industrialization of the film's production, was standardized the narrative structure and the film projection device. The narrative structure was standardized favored the linearity and the film projection was focused on the room where the audience is seated in the dark watching only the screen.

In 1951 the company Twentieth Century Fox incorporate the stereo sound and the extended screen. With these changes was sought convert the film experience in a immersive experience for the viewer, encouraging even more the linear structure of the films, there was no place for any kind of device that allow the public generate a vote in order to decide anything about the film.

For this reason probably the interactivity in the cinema is not widespread in contrast to other sectors, such as the Internet, where the user has the tools for decide what want to see. In the cinema the creation of these tools supposed a high costs and more difficulty in the production process, and for these reason the interactive films have a lack of popularity and support of the big companies.

Despite these drawbacks, creators and directors have continued seeking methods for get approached the power to decide to the users.

Highlights the Danish film "Switching: An interactive movie" [6], shot in 2003 and directed by Morten Schjodt. This film is structured around a circular system that repeats on itself, and therefore is a film that never ends but the users can be varying the story according to the choices made. This movie was shown in a Danish independent theater, where the public votes with a controller and decide about the plot of the story.

Lately it's starting to implement the so-called "transformative interactivity". In a website created before the start of filming a movie the author makes a number of options and the user choose not only the content previously proposed by the author, but rather may also propose new things transforming that content. This system allows among other things create a movie "on demand." The user can participates in the pre-production process.

3.2.2. Games and interactive video games

As I explained in this work, the interaction can create projects where the user can view and participate and in some cases even play. So you can say that this feature is ideal for the field of video games and traditional board games, where the users are an important part of what is happening and let you act and not leave everything to chance.

RPGs (Role game play) use a high degree of interactivity. Between all games, there is one that stands, possibly because it was the first interactive board game that people started to play, the "Dungeons & Dragons" [7].

The popular board game created in 1974 by the company "Wizards of the Coast" swept sales. The fact that the user could control characters that embarked on imaginary adventures and could choose the fate of his character trough a series of decisions, facilitated the high popularity that it reached. It had become the first RPG and interactive board game of the history.

With the advent of new technology and the game consoles, there are many companies who also wanted to exploit this feature because they knew that if they reached a high degree of interaction with the user, it could achieve much attention, making be an addiction and win more money than the traditional games.

A new generation of interactive video games is called "Infamous" [8]. This game allows the user to decide which actions want that the character performs, according to what the

user is choosing of the story, the main character will become a hero who does good things or otherwise in a ruthless villain who all he wants is to destroy everything.

The fact of carrying the characteristics of the board game "Dungeons & Dragons" in the console, allowed selling over a million and a half copies in just over two months. The interactivity in the video games is a good business.



Figure 3.2.2. Images of the games “Dungeons & Dragons” and “Infamous”.

3.2.3. Interactive narrative

Also known as non-linear narrative or interactive fiction or cyber text... Interactive narrative means writing from a specific narrative patterns in which intervention is possible at different levels of reading, modifying arguments and facts, diverting the course of the story until the end...

It believes that interactive narrative is based on the construction of narrative environments within which become stories. The most prominent and better known are the books called "Choose your Own Adventure" [9]. In these narratives, the user could make their own decisions about how the characters act, and can modifying history.

The slogan of these books summed perfectly what allowed enabling this high degree of interactivity. The book says as follows:

"The possibilities are numerous, some choices are easy, some sensible, some reckless... and some dangerous. You are who you make decisions. You can read this book many times and get different results, remember that the readers make the adventure. You're the adventure. If you make a rash decision you must to return at the start. There are no right or wrong choices, only many choices. "

This sense of power to the users that brings these stories, make it a great incentive, and surely this is one of the reasons why these books have much success. These books achieve leaving the traditional linear narratives, using an innovative method like this.

It can be said that interactivity began largely in the field of narrative, and therefore is one of the areas most currently used.

3.2.4. Interactive advertising

The advertising industry is also taking advantage of the feature of interactivity. The most important thing in the world of advertising is to attract the maximum attention of the audience to get to sell the product.

The creative advertising have begun to exploit the feature of interactivity, allowing to engage the user, play with their work, and they achieve captures their attention and increase sales.

A clear example of advertisement that has achieved great success on YouTube has been the "*Tippex Company*" [10]. His interactive ad achieves a lot of good criticisms and a lot of visits from users.

The video consisted of a man who was camping in the woods. Suddenly a bone appeared ready to attack. The user must decide whether to shoot or not. When the user decides, the main character appears and says that he cannot shoot. In the title appears in a blank space and the user can set the action you want to happen between animal and man.

This video is very original, and was able to capture the attention of users rapidly YouTube. Soon got over 20 and a half million visitors making it one of the most viewed ads on this platform.

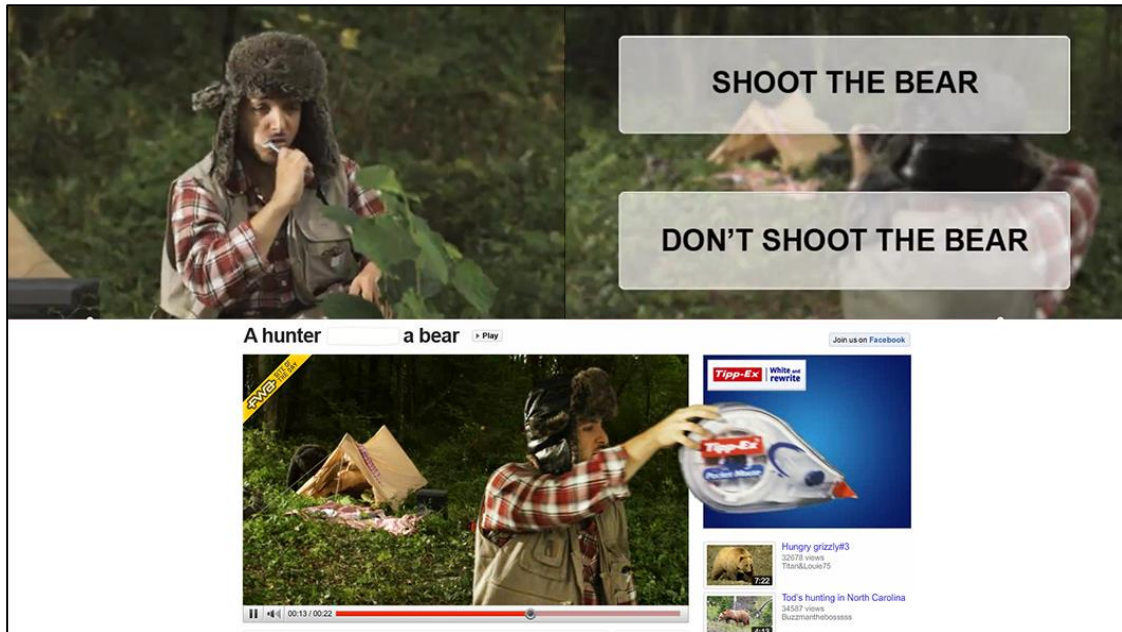


Figure 3.2.4. Screenshot of the video “NSWF”. A hunter shoots a bear! (2010) Tippex

Seeing this example it is clear that power can have the interactivity in the world of advertising, it's a sector in extension, especially considering that grows every year the number of hours that people spends watching the audiovisuals projects in Internet. More than others media like TV or Radio.

3.3. Interactivity on YouTube

The emergence of the interactivity to YouTube revolutionized all the videos of the Internet. Let's see how this option allows a new way of working for many content creators.

3.3.1. History of YouTube

The platform for viewing of online videos YouTube was founded by Chad Hurley, Steve Chen and Jawed Karim on February 14, 2005, the day he bought the domain on the web.

The first video was uploaded on April 23, 2005. The video was a home video of one of the creators in the Zoo [11].

In May 2005 he launched the first open beta to the public, and in 365 days gets increasingly popular, reaching over 65,000 videos a day.

In 2006, the company Google buys YouTube for a total of 1.65 million and from that moment begins its great expansion.

The year 2010 is estimated to total 48 hours of video are uploaded to YouTube every minute. The company signed agreements with major movie companies to show their content as well as large companies such as audiovisual Universal Music Group, CBS, Warner Music and Sony BMG, allowing streaming broadcast major sporting or music events.

In 2012, YouTube made a change in the design and add new options and features, such as 3D, Full HD videos and interactivity. It is estimated that 4 billion videos are viewed every minute and more than 60 hours of video to YouTube are upload every minute. YouTube is considered the third most visited website behind Google and Facebook.

Here you can see some facts about YouTube in 2012.

- | |
|---|
| <ul style="list-style-type: none">- 800 million visitors per month- 3 billion hours of video watched per month- YouTube is localized in 39 countries and in 54 languages- 3 billion videos YouTube us monetizing every day- 500 years of YouTube videos are watched every day on Facebook |
|---|

Table 3.3.1. Data about YouTube in 2012.

3.3.2. History of interactivity in YouTube

In 2008, YouTube added a new element. This new option allows a high degree of interaction between the videos and users.

In June 2008 is published the first interactive video within this website. In the video you could see a magician doing a trick, and finally the user must to decide in which part of the dress of the magician is hidden the object.

Although it still has not spread too much use of this feature, it's starting to invest, especially in the field of advertising as well as videos on a low budget, which seeks originality, good ideas and where the user participates, not necessary a good technique

in the realization video. Some of these videos have been very popular thanks to this innovation.

3.3.3. Operation of the tool of the interactivity in YouTube

Actually this feature incorporated by YouTube resembles to them books that were published in the 80 and 90 called "Choose your own adventure" where the reader could choose the route and took the decisions in the history and getting a result different each time it is read.

The interactivity is achieved from YouTube links. During video playback, the author of the video can decide in what moment want it to appear the notation (which can be text, or spotlight) and when the user clicks on it, the user can access new content, as may be another video, a YouTube channel or another website.

To perform the role of interactivity of YouTube, the users must to press the annotations button. Here you can see all the options available:

Speech Bubble (which allows you to create text in bubbles pop), Spotlight (to highlight areas of a video, when the user moves the mouse over them appears the text entered), Note (to create text boxes pop), Pause (for pause a video during the specified time), Title (to create a text overlay to headline the video) and Label (to create a label to refer and assign a name to a specific part of the video).

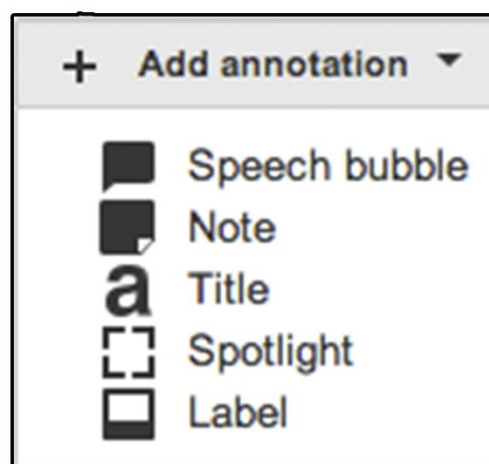


Figure 3.3.3. Options for make the interactivity.

3.3.4. Advantages of use interactivity in YouTube's videos

The function of interactivity that incorporated YouTube allows sharing richer audio-visual productions. This option lets the user take part of the story that is explained in the video, the user decides and is not a mere spectator, this option make the videos more attractive and therefore can attract much more audience.

As in my final project, where the story will change depending on the decisions made by users, when we make an interactive video (which actually consists of several videos) we convert a linear story (where the events happen one after another, without any type of modification) in a non-linear story, more dynamic, where we can change the highlights facts.

The appearance of the interactivity in YouTube allowed to writers and designers open their mind to create more ambitious productions. This feature allows the creation of interactive narrative stories, doing more entertaining viral ads, conducting tutorials where the user can interact, and all kinds of games combining interactivity and links to let the user play.

With regard to content creators, we can say that the integration of interactivity in YouTube opened a new world in this website.

Now we can make videos and projects for the users so they can play and participate. Thus we get the audience loyalty and this factor in audio-visual sector is very interesting, because the more people seeing the production, the more income and more social impact are obtained.

With the use of the interactivity it is possible to obtain more audience than with the linear productions.

3.3.5. The interactivity in 2D animation

My final project consist in create an animation in 2D and using the function of YouTube to do the interactivity, thus ensuring the story is different depending on the decisions made by users.

In my story exist different ways for arrive at the same place. The user can make your choices. It is possible that the user to get different endings. There are seven different endings.

Doing this research, I discovered that nobody really yet has done major projects with the option of interactivity in YouTube. No exists any animation project with similar characteristics to my final project. If it is true that surfing the web can see is 2D animation short films and even series of big companies of animation I believe that no exist any production similar to my idea.

The only work that uses interactive animation to YouTube is a video called "Line Interactive" user-created PatrickBoivin [12].

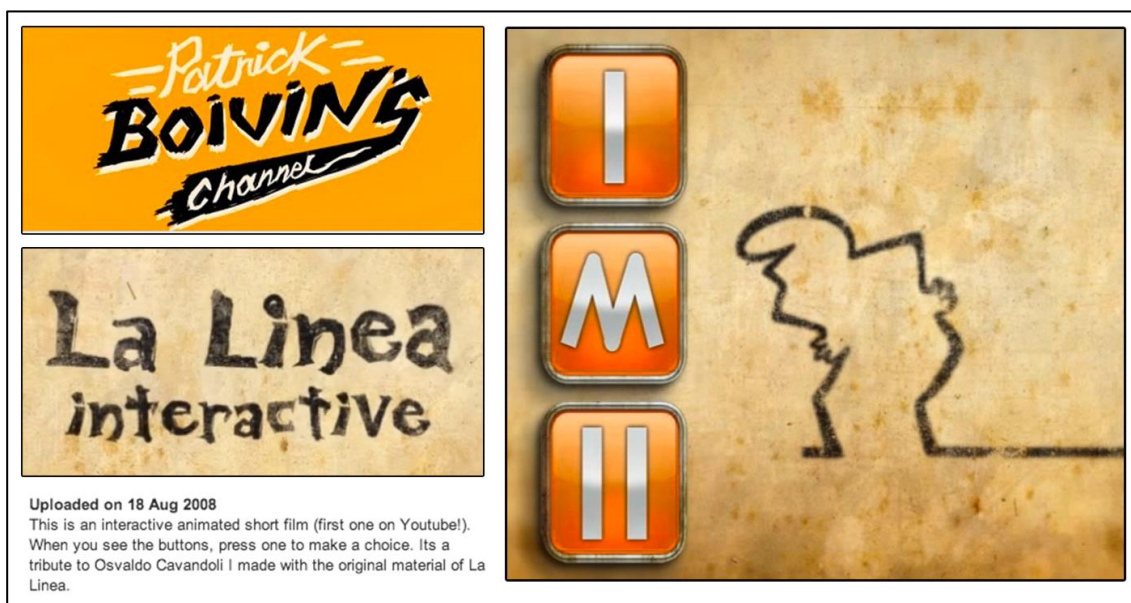


Figure 3.3.5. Screenshot of the “Line Interactive” of Patrick Boivin.

In this project, you can see an animation of a character (like simulation style is drawing character) and at the end of each scene are 3 options where users can make their choice, according to the choice of the user, appears into the scenario drawn the object. The main character interacts with the object. This project now have more than 1 million hits and has the honor of being the first interactive animation video on YouTube.

3.4. Conclusions of the investigation

After finishing this investigation, I have been able to analyse the concept of interactivity, all its advantages, its uses and areas where interactivity is constantly used.

I've been aware of how important it is to get a high grade of this feature to achieve enriched audio-visual productions, a sector where interactivity has not been really used to its maximum power.

I think that knowing so much about interactivity, knowing how to apply it in order to achieve maximum interaction with the user, bearing clear in mind that the goal should be to make the user feel like he have all the power consequently being able capture his attention.

I've been realizing how important interactivity is in today's world. Actually this feature is commonly used in diverse industries such as video games, education, and creation of web pages or within the narrative.

Surely in the scope I hope to use it (in audio-visual productions on the Internet) is where this feature has been less exploited. Probably because it is a relatively new sector, and the productions that are being created are still in experimental phases, low budget and without the support of large media companies.

I think that if any big company decided to bet strongly in creating a fully interactive product it could become a great success. It is true that highly interactive education software already exist, or websites like discussion forums in which users can interact with the creators of the website, but in other areas interactivity is almost forgotten.

As I have already explained, it is important to emphasize the change of mind which is necessary to make in certain areas in order to be able to include the interactivity, for example in cinema, where people traditionally sees a linear history and have no power of decision because use cannot be made of any device to vote or decide anything in the plot. I think that a model and manners change in certain areas could be beneficial because it would contribute to a greater variety of audio-visual content.

Actually very few people carried out a 2D animation and added the incentive to create interactivity in YouTube. Almost all productions you can see are 2D animations with a linear structure (following a conventional structure).

Lately it is starting to use this feature a bit more in the commercial sector, in which the creatives can make viral marketing campaigns that in other media it would be impossible to do. I think the Internet is the most interactive environment nowadays, but many big companies have not yet seen the potential impact of investing in interactivity.

Without any doubt, finishing this investigation I opened up my mind regarding how important it is interactivity in multimedia and audio-visual projects.

4. Production process

Now I will explain the highlights of the entire production process.

4.1. Calendar

In this table you can see how I had organized the time. Although I had a year to complete the project, without proper planning would have been impossible finished over to the deadline. I have learned that it is very important to make a delivery schedule before starting a project of this nature.

Month	Tasks
July 2012	In Wales: First ideas about the project, development of the Storyline and the Animatic. I also did a first trailer of the project.
September 2012	Preproduction: I made the final modification of the Storyline, I wrote the dialogues and I started working on the Storyboard.
October 2012	I finished the drawings of the Storyboard. Later I started with the designing the characters, especially Ben.
November 2012	I finished the different drawings of Ben. I continued drawing all the characters with the different views.
December 2012	I finished the drawings of all the characters of my story.
January 2013	I drew the scenarios and objects that appear in the story.
February 2013	I finished all the scenarios. Also I checked all the designs. Finally I did the final adjustments.
March 2013	Production: I started with the animation of Ben. I made the basic movements and started to animate some scenes.
April 2013	I continued with the animation of the scenes.
May 2013	I continued with the animation of the scenes.
June 2013	I finished the animation process. I also edited all the video files.
July 2013	In Wales: I recorded the final voices. I put the sounds. I made the final animations. I uploaded all the videos to YouTube and finally did the connections for create the interactivity.

Table 4.1. Work planning

4.2. Software

During these months I have used different softwares. In this table, I will explain the use of these softwares.

Stage	Software	Tasks
Preproduction	Toon Boom	For make the first animatic in Wales.
Preproduction	Adobe Illustrator CS6	To digitize the drawings that I had made by freehand
Preproduction	Adobe Photoshop CS6	For painting the drawings.
Production	Adobe After Effects CS6	For make the characters movements. I also used it to make the lip sync.
Production	Final Cut	For editing all the scenes.
Postproduction	Adobe Premiere CS6	For put the background music of the scenes and finish the edition of some scenes in Wales.
Postproduction	Audacity	To cut the voices tracks.

Table 4.2. Software and use.

4.3. Preproduction

The preproduction my project began in July of 2012, the first time that I was in Wrexham. The first day we met all the animation students with the teachers to decide what project we wanted to do.

Now I will explain the most important stages of the preproduction, which lasted several months.

4.3.1. First ideas

Initially I wanted to do something related to motion graphics. After talking with the teachers at the first meeting, I decided make an interactive 2D animation. I spoke to them about the YouTube's interactive option. The teachers accepted my proposal.

I wanted to make a funny animation. I need a striking plot. I wanted to provide a lot of freedom to the user.

First of all, I needed to think about a good plot. I needed one good idea for start my project. It was really hard to make all connections. The story should have consistency.

4.3.2. Storyline

I wrote keywords on a blank page. I wanted a project with multiple endings. I decided to make a nuanced plot about aliens and the other about the mafia. I had the keywords. From this point I started to think about how to unite the two concepts.

In this moment I learned how the important it is make a good storyline in the preproduction. A storyline is the reflection of everything that goes through your mind. All the ideas take shape in the storyline. My project is a nonlinear story. For this reason it was absolutely necessary a consistent story. I had to be very careful during the preparation of the storyline.

During the first summer in Wrexham I finished the first storyline. During September I checked this work and I tried to improve it. There were meaningless situations that I had to fix. In late September I finished my storyline.

In my storyline each scene is linked with arrows. It also every scene has a one-letter code and one number. I have used this system to facilitate the understanding of the storyboard. You can find the storyboard in the annex, specifically on page number 3.

Here you can see the storyline. If you want a better view, you can find it in the annex, specifically on page number 2:

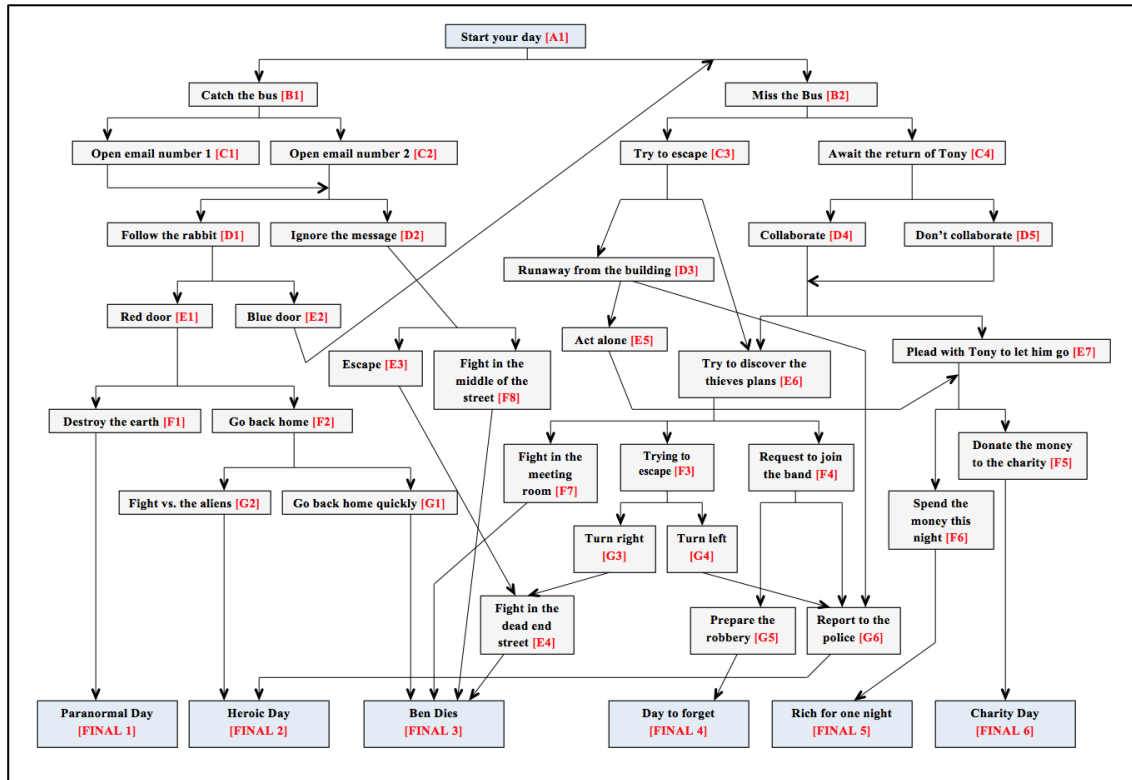


Figure 4.3.2. Storyline of “Ben’s Crazy Day”

4.3.3. Animatic

As my classmates in Wales I also had to deliver the animatic. As my project is a non-linear story, my animatic was more difficult to make.

One of the teachers suggested me make gifs (small and simple animations). So I could represent more scenes. To create the story, and link the scenes, I used the website called “*Inklestudio*” [13]. This website allowed me to put text and gifs. Besides I could create interactive options.

Using this website, I had a better idea about what I wanted to represent in every scene. I made the gifs with Adobe Photoshop software and Adobe After Effects.

If you want to see my animatic, you can visit this website:

- <http://writer.inklestudios.com/stories/gwhz>

4.3.4. Storyboard

In all audiovisual projects, the storyboard is an essential part in the preproduction. With the storyboard you can plan each scene perfectly. In addition it is an aid in the production, as it saves a lot of time. As the scenes are predetermined in the preproduction phase, in the production phase it isn't necessary to think what to do at all times.

My project is a non-linear story for this reason my storyboard is a little bit different. In addition it has many pages and more than two hundred drawings. In order to join the scenes I created a combination of numbers and letters. Watching the storyline you can decide the next scene, and just have to look for that same combination on the storyboard. Thus you can simulate the interaction.

In each scene is specified what happens with a brief description. Also you can see the sounds and the dialogue.

To carry out the storyboard I spent a lot of time. I discovered that it's really hard to decide which reflect in every scene. I thought a lot about each picture, because some scenes are used in different parts of the story, and therefore all the scenes I had to have consistency. It was necessary for users to understand the whole story.

The storyboard became essential part of the preproduction. Throughout the project I used the storyboard constantly. I realized how important is to make good previous work before starting production phase.


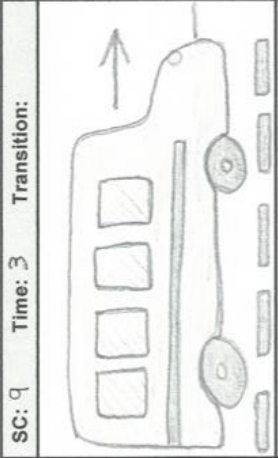
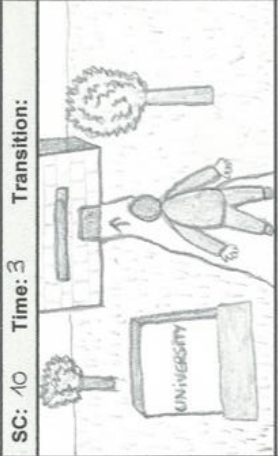
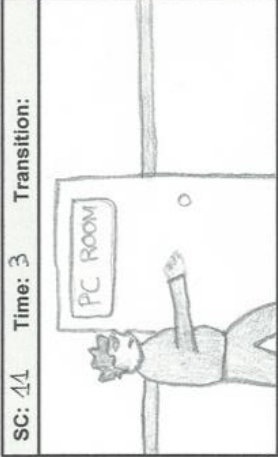
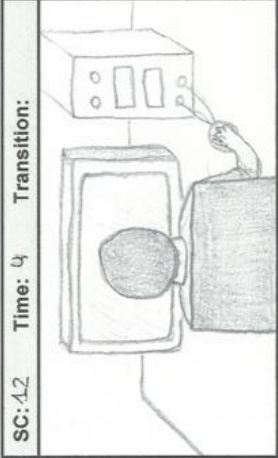
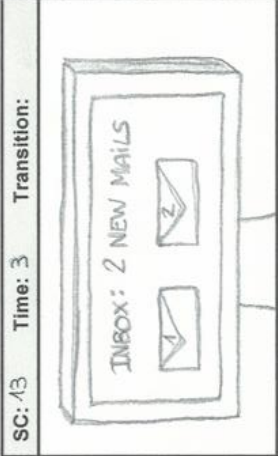
Here you can see one page of the storyboard. You can find the complete storyboard in the annex, specifically on page number 3:

TITLE OF THE SCENE: TAKE THE BUS

NEXT SECENE: [C1] + [C2]

B1 1

TOTAL TIME: 19.5

<p>SC: 8 Time: 3 Transition: FADE TO WHITE</p>		<p>Action: BEN IS WAITING TO GET INTO THE BUS.</p>	<p>Sound / Dialogue: ENGINE BUS</p>
<p>SC: 9 Time: 3 Transition:</p>		<p>Action: THE BUS RUNS THROUGH THE CITY.</p>	<p>Sound / Dialogue: BUS NOISE</p>
<p>SC: 10 Time: 3 Transition:</p>		<p>Action: BEN IS ENTERING IN HIS UNIVERSITY.</p>	<p>Sound / Dialogue: SOUND OF BIRDS.</p>
<p>SC: 11 Time: 3 Transition:</p>		<p>Action: BEN IS ENTERING IN HIS CLASS.</p>	<p>Sound / Dialogue:</p>
<p>SC: 12 Time: 4 Transition:</p>		<p>Action: BEN TURS ON THE COMPUTER</p>	<p>Sound / Dialogue: WINDOWS SYSTEM SOUND</p>
<p>SC: 13 Time: 3 Transition:</p>		<p>Action: IN THE INBOX OF THE EMAIL, BEN HAS 2 NEW MAILS</p>	<p>Sound / Dialogue:</p>

→ OPEN THE MAIL NUMBER 1 (C1)

→ OPEN THE MAIL NUMBER 2 (C2)

Figure 4.3.4. One page of the Storyboard of “Ben’s Crazy Day”

4.3.5. Script

During preproduction I also had to prepare the dialogues. When I was planning each scene I was deciding whether there should be dialogue or not.

This was the first time that I had to make a script for an audiovisual production. I realized how hard it is. I had to use a standard language, realistic and with a touch of humour. I tried to make short sentences because this makes me easier the lip syncs.

My intention was to make the minimum number of dialogues. I wanted to do very descriptive animations, without voices. Finally I made five pages of dialogue.

If you want to see my script, you can find in the annex, specifically on page number 48.

4.3.6. Character design

In my project there are three important characters and some secondary characters. The main character is Ben.

It was the first time I was going to design a character. I wanted to get a cartoon style. I drew the main character with real proportions. I liked it better.

Ben was a simple character but with something representative (for example, the shape of his nose). Ben must get dressed youthful. My main character has a casual touch.

The first thing that I did was making several sketches on a blank paper. I retouching the drawing to get the main character that I liked. Then I scan the drawing.

With the Adobe Illustrator software, I made the trace the drawing. Finally with the Adobe Photoshop software I paint this drawing.

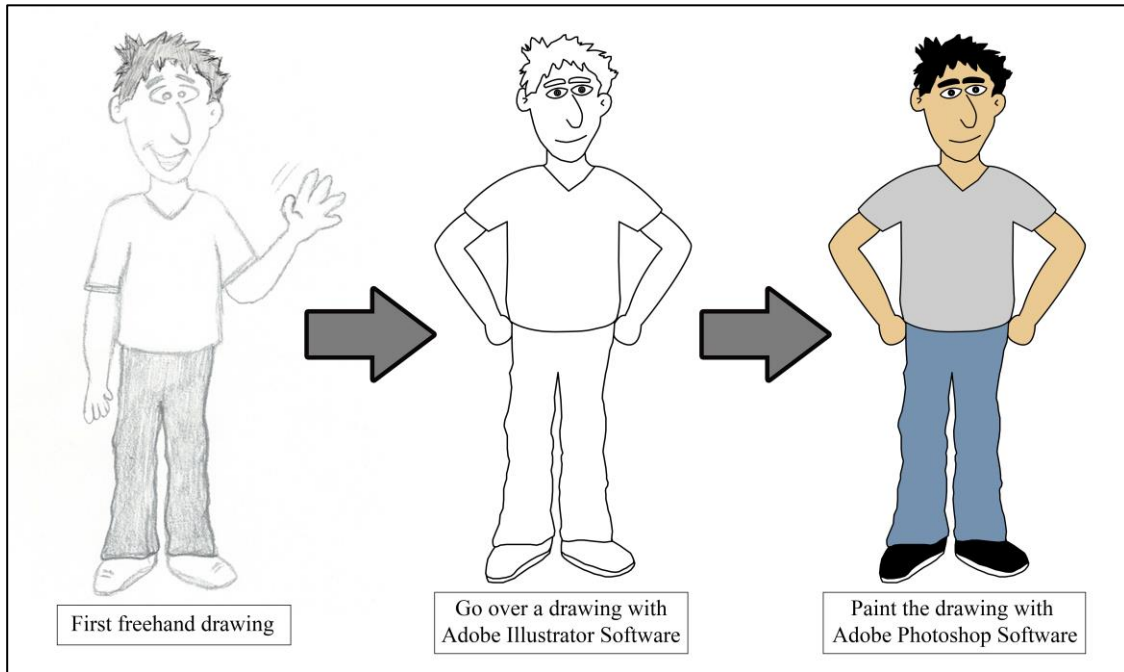


Figure 4.3.6.1. Ben design process

After explaining the design process of the characters, I will show you the most important aspects of the three important characters of my story.

Ben (the main character)

1) Description

Ben is a young man, modern, tall and thin. He has a black hair and black eyes. He wears a grey T-shirt and jeans. He has a clear skin. He has a long nose and big eyes. He is always smiling.

2) Data

- Role: Main Character
- Occupation: Computer engineering
- Age: 23 years
- Gender: Male
- Height: 1.72m
- Weight: 70 Kg

3) Personality

Ben is a quiet boy, determined and courageous. Not afraid of anything or anyone. It is very sure of him and knows how to control difficult situations. He is a friendly boy and always gets to make friends quickly. He always gets what he wants.

4) Character Design

I designed a simple character, with a cartoon style. The user can choose the behaviour of Ben, for this reason I didn't want to give any trait that might influence the decisions of users. Ben is a blank canvas. For that reason, he is dressed casually, with a modern hairstyle. Here you can see the color sheet of Ben:

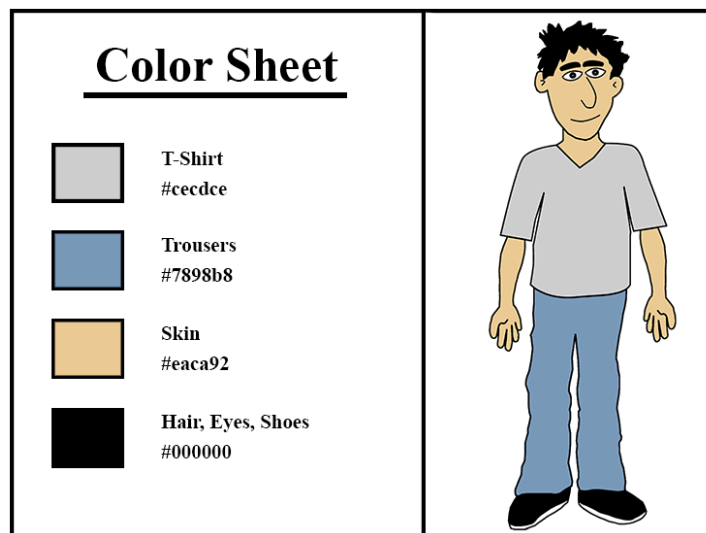


Figure 4.3.6.2. Ben's color sheet

Tony del Valle (The gangster)

1) Description

Tony del Valle is a hard man. He has signs of struggle in the face. He has very marked features in his face. He is of Italian origin. Tony is smart. He always wears a suit. He is short and fat. He has a large head and a small mouth. He has big hands.

2) Data

- Role: Antagonist
- Occupation: Gangster
- Age: 43 years
- Gender: Male
- Height: 1.67m
- Weight: 91 Kg

3) Personality

Tony del Valle is an enigmatic man. He never says what he really thinks. He likes to have all the situations controlled. He always commands. He is quite confident and

relaxed. He is sympathetic with his friends and he is hard with his enemies. Not afraid of anything.

4) Character Design

I decided to design a Tony del Valle like the gangster's of the best action movies. He dresses with a striped suit, typical of Italy. My project is a chapter of cartoon, for this reason his jacket is painted lighter. From black was too sad. The hat gives a nice touch. The character is short and fat to continue the cartoon style. Here you can see the color sheet of Tony:

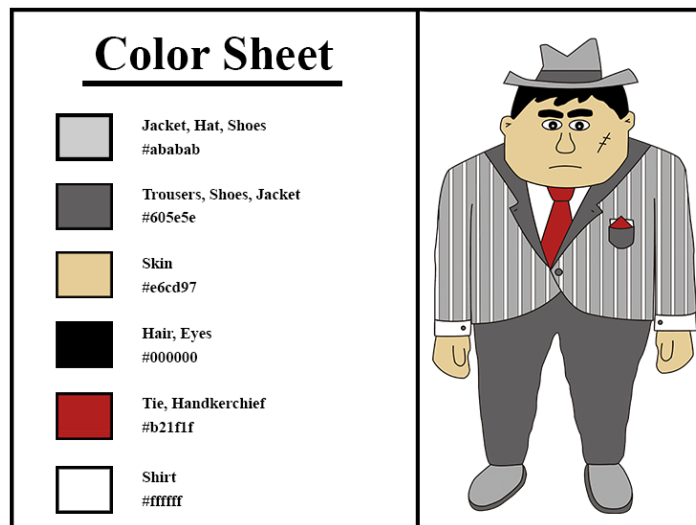


Figure 4.3.6.3. Tony's color sheet

The alien

1) Description

The alien is the villain of my story. He wants to destroy the earth. He doesn't want to relate to any other character. The alien is very tall and thin. He has green skin and viscous. They use high technology for achieve the world domination.

2) Data

- Role: Antagonist
- Occupation: Earth Destroyer
- Age: X years
- Gender: Male
- Height: 1.83m
- Weight: 50 Kg

3) Personality

He is a very enigmatic. He hasn't feelings. He only works for executing his terrible plan. He doesn't mind doing evil for get what he wants.

4) Character Design

I decided to design this character mimicking E.T. (the film). The difference is that, my character is bad; therefore he has some traits in different face. He is much more serious and terrifying. He doesn't dress clothes. I played with your skin tone to simulate clothing. I've added a layer to give a different touch.

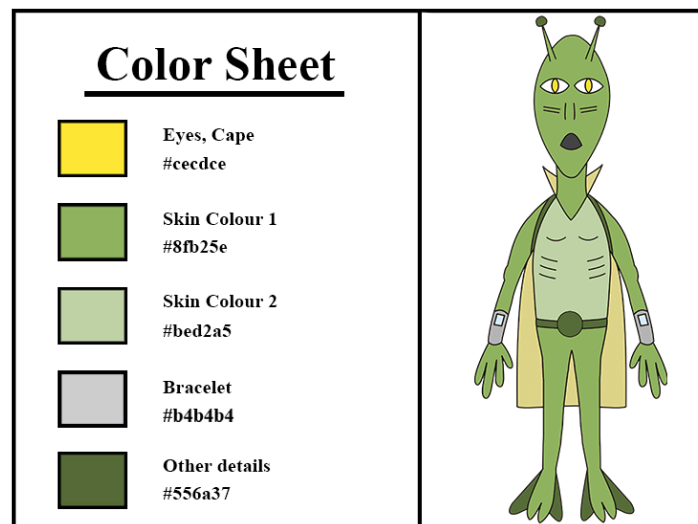


Figure 4.3.6.4. Alien's color sheet

4.3.7. Scenario design

The design process of the scenarios was a little bit different of the character design. I had planned all the scenarios in my mind. I wanted simple drawings. I wanted them to be straight lines, easy to draw and do not stand out too much. The important thing should be the actions of the characters and not the scenarios.

For that reason, I drew directly the scenarios using Adobe Illustrator software and I painted this vectors using Adobe Photoshop software.

In other cases, where the scenarios were more difficult, I decided to follow the drawing made in the storyboard.

Here you can see an example. Specifically this is the final scene of the aliens, which recreates a big hall.

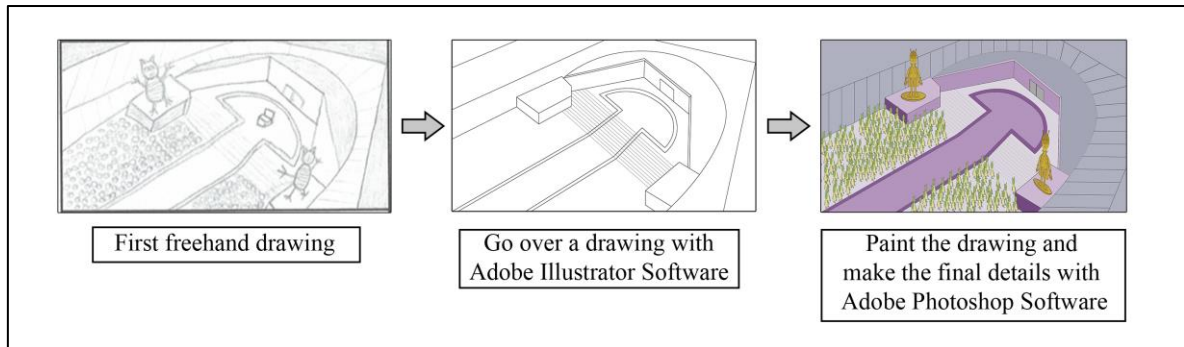


Figure 4.3.7. Scenario design process

4.4. Production

When I had all the design resources needed of my project, I started with the production phase.

This was the most mechanical stage. Every day for several weeks I had to do one scene, following the planning and storyboarding.

4.4.1. Basic movements

The movements of the characters were one of the aspects that I worried about this project.

I should faithfully reflect the basic movements such as, running and walking. These were two movements that I would use constantly. I had to spend many hours to achieve good results.

I wanted to get a cartoon look, also in the movements. For that reason I use a reference book called "The animators survival kit" by Richard Williams [14]. My tutor recommended me this book. The book gives advice to do the movements. Using the example of the models of the book, I made my character movement.

I decided to draw frame by frame all the movement. I did more than ten drawings of Ben for achieve the movement. The most important thing was that the movement between the drawings was not too abrupt. So I got to make a more natural movement.

With Adobe Illustrator software I made the trace the character. With the Adobe Photoshop software I painted the drawings. Finally I used the Adobe After Effects software for put the drawings one after another.

The whole process took me over 12 hours of hard work. Finally the whole movement lasts two seconds. Only two seconds...

Despite all I am proud of this work, and I achieve make the movement of walking and running. These movements were very useful throughout the entire production. I used them constantly and in many scenes.

Here you can see the thirteen drawings that I used to make the run cycle animation:

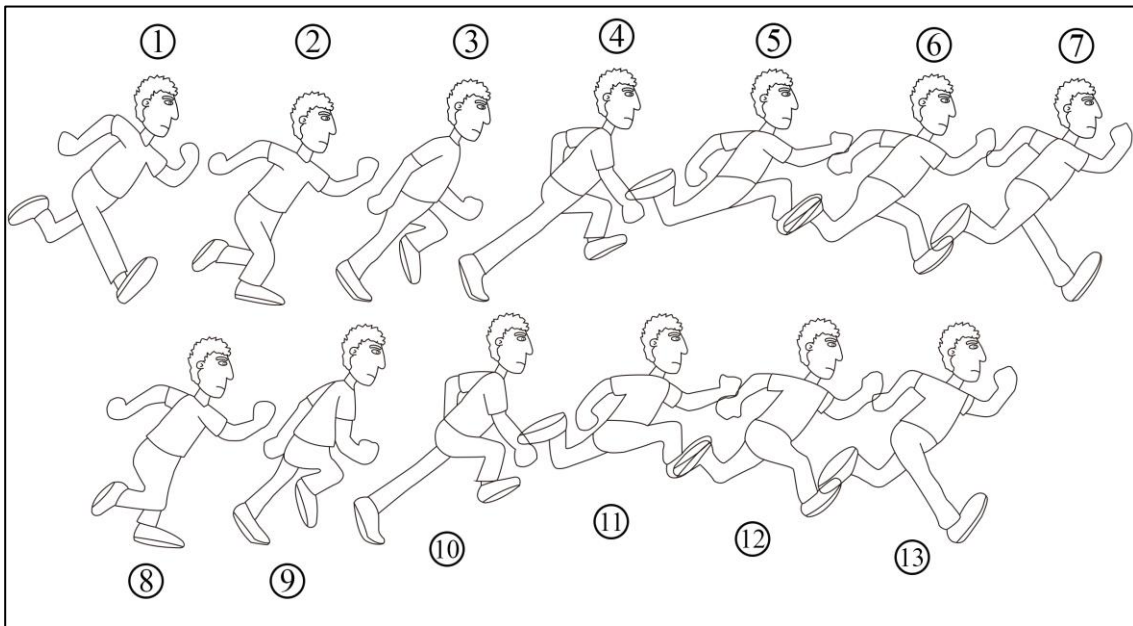


Figure 4.4.1.1. Run cycle animation

Here you can see the twelve drawings that I used to make the walk cycle animation:

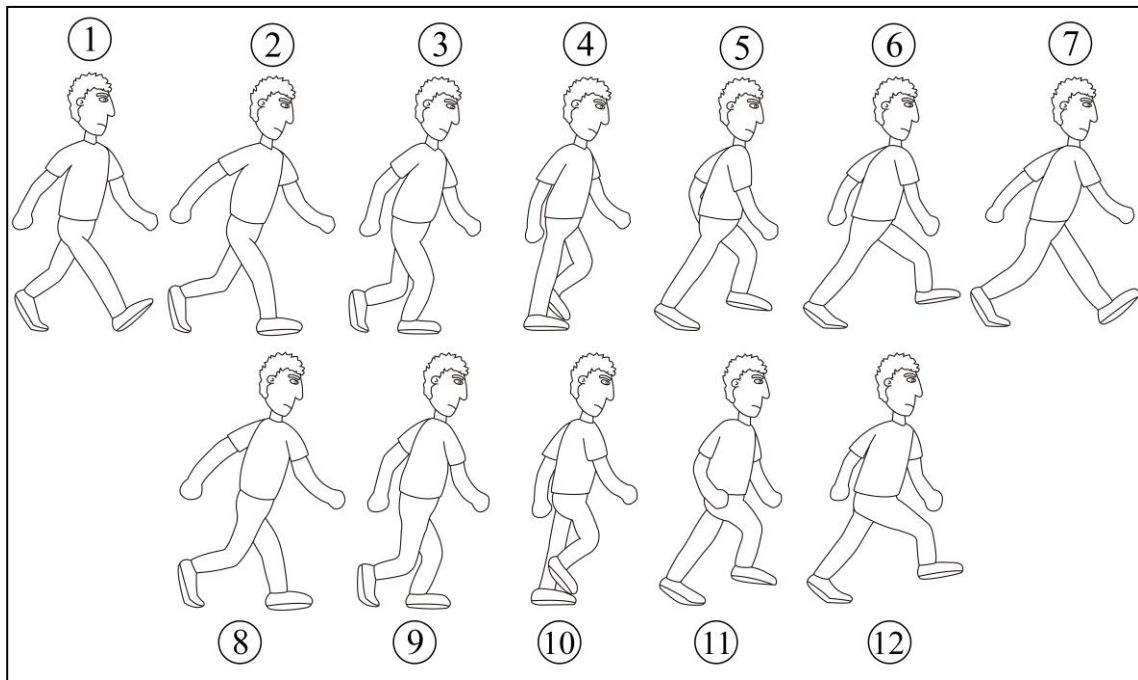


Figure 4.4.1.2. Walk cycle animation

4.4.2. Animation process

To make the animation of the scenes, I followed the storyboard. I used Adobe After Effects software. With this software I made all the movements. In my project there are 46 scenes with various shots. I planned make one scene each day.

To animate a scene I put the scenario below and above the characters. The characters made simple movements (close the eyes, raise the arms...), I superimposed the drawings frame by frame, and I achieve the optic effect like if the characters are in constant movement.

I moved the objects with key frames, changing the position, scale and opacity number along the timeline.

The most difficult scene was the moment of the fight. In this scene I had to make several drawings of the arm hitting a punch.

I had to perform various pre-compositions (the union of different layers in Adobe After Effects software) to make these movements.

During the preproduction phase I made various models of faces and bodies. So during the animation I just had to choose the drawing that I needed and alternate it frame by frame.

Here you can see some of the models that I had drawn:

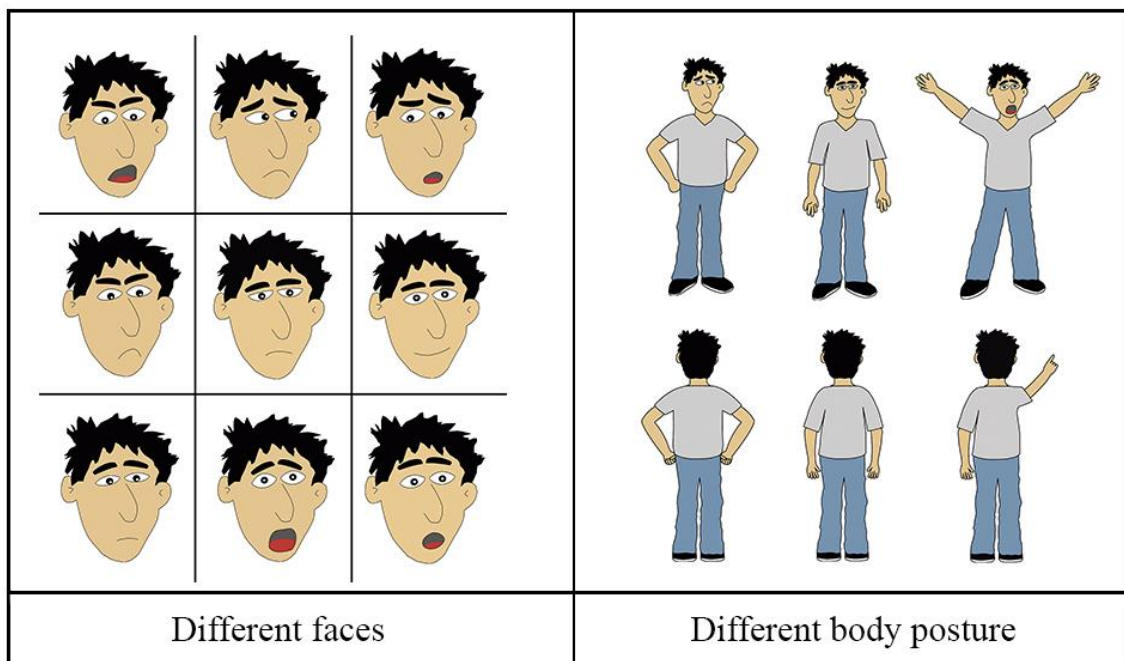


Figure 4.4.2. Some faces and some bodies that I used in my project.

4.4.3. Lip synchronization

During the preproduction of the project I recorded the dialogues with provisional voices (voices of friends).

In the animation phase, I realized the lip synchronization with Adobe After Effects software.

When a character talks, usually with a close-up, I replace his face for one with the same facial expression but without mouth. Then when you start the audio track I alternated between the four mouth models that I had drawn in the preproduction phase. Each frame I varied the mouth to give more dynamism and sense of movement.

Here you can see an example of Ben's face without a mouth, and the four models mouth I drew during preproduction:

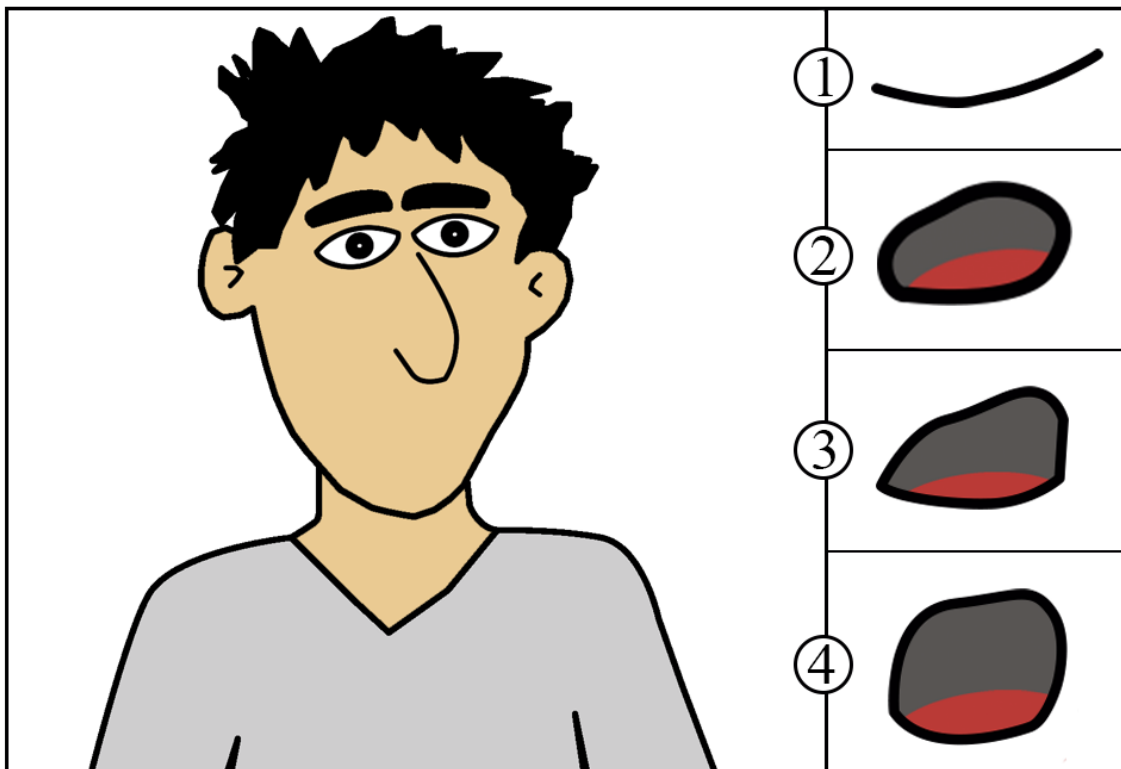


Figure 4.4.3.1. The four different mouths and Ben's face without mouth

- This was the process that I used to lip sync with audio:

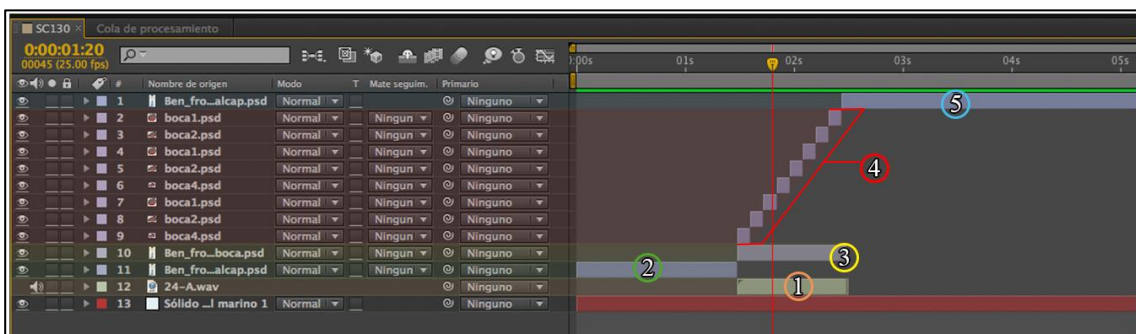


Figure 4.4.3.2. Screenshot of the Adobe After Effects software

- 1) I put the audio track in the lower layer
- 2) I put the character with mouth in a separate layer until the time he began the voice track.

- 3) In a layer above I put the character without mouth. During all the time that sounds the voice track.
- 4) In each frame I placed a mouth model. I put the images until the audio track are ended.
- 5) In the top layer, once the voice track was finished, I again put the character with mouth.

Really this was a very slow work because I had to listen the voice track many times for make a good synchronized movement of the mouth.

Still, I think in the drawings, the movement of the mouth is not as real as 3D animation. After several weeks of work, I think that the result is pretty good. There are not many synchronization errors. This was one of the aspects that concerned me before to start the project. I am satisfied with the end result.

4.5. Postproduction

The postproduction it is my favourite phase of all the audiovisual process. This is the stage where so many months work takes form, where you can see the achievements.

With all the videos finished, it was time to put the sound effects, the music, fix bugs, make the final animations, and put the finishing touches on a work of many weeks.

Every time there was less time for the final result saw the light. I did much of this phase this past July in Wrexham, at the University. The advice of the teachers has been important because they have allowed me to improve my work.

4.5.1. Final animation with the options

This past July, in Wrexham, I made the final animations. The final animations could be of two types. An animation where appear one question and the options or a final animation where the user can start again. This second animation it is for the endings.

These animations I have done using Adobe After Effects software. I have also used the drawing of Ben, which I had already done using Adobe Photoshop software.

To give more dynamism to the time of the election, I have added a timer in the top right. So the user hurries when it comes to choose the next scene.

Here you can see some of the questions and the different options:

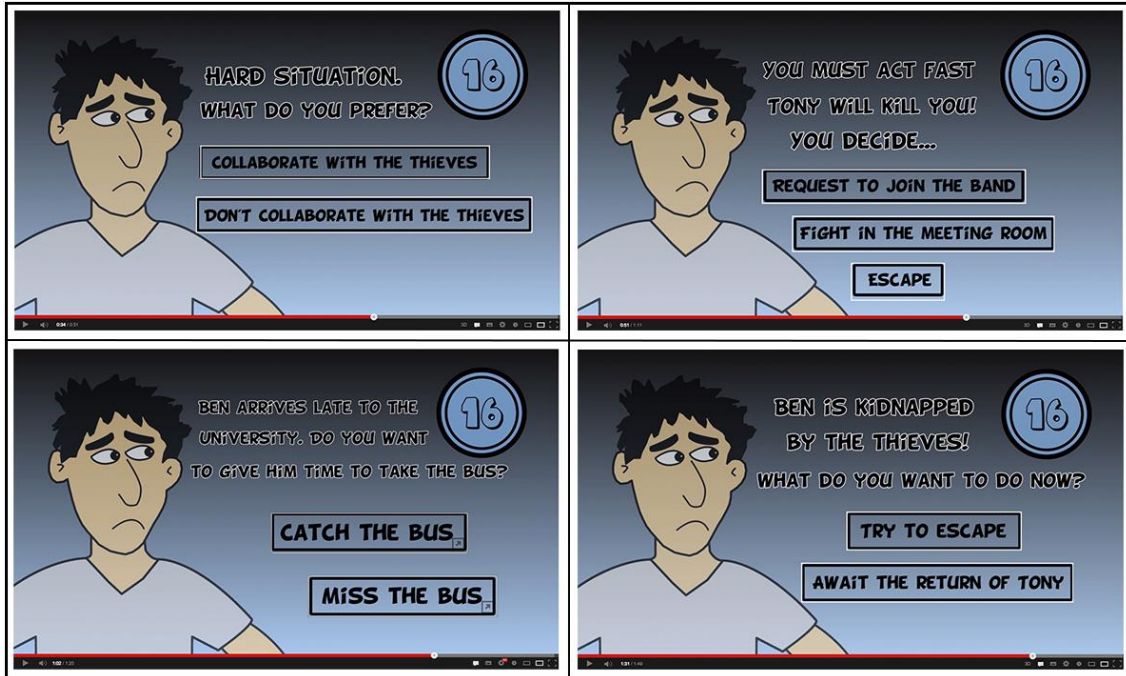


Figure 4.5.1.1. Some screenshots of the finals questions

Here you can see the six finals animation. I have tried to differentiate the six finals with different colours and I put Ben with a differently characterizing in each scene.

For that reason, for example, at the end of "Day to forget" Ben appears dressed as a prisoner (because he is captured by the police). However in "Paranormal Day" Ben appears with a crown (because he is the new leader of the aliens).

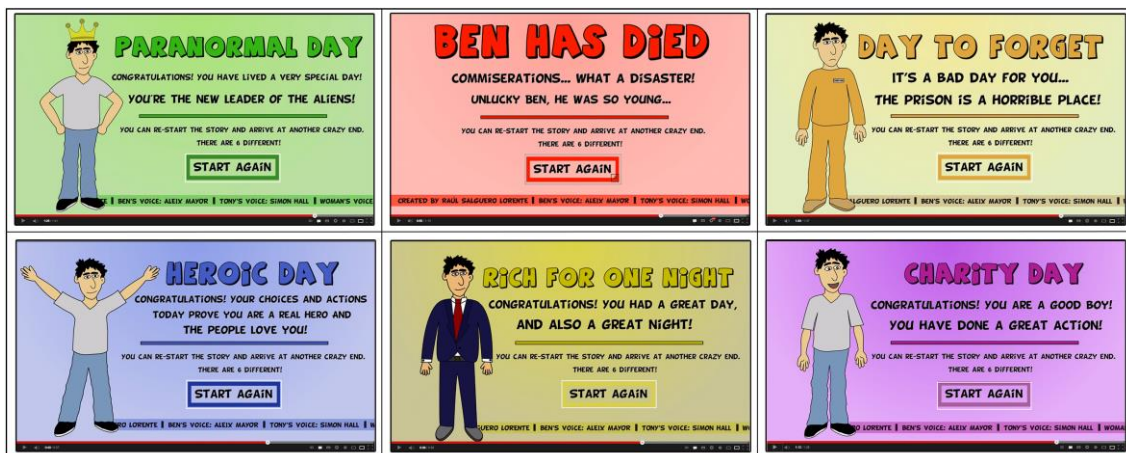


Figure 4.5.1.2. The six finals animations

4.5.2. Definitive voice recording

During the production process I recorded the dialogues of the characters with the provisional voice of two friends. I needed a reference, some voice, for make the lip synchronization.

This July, in Wrexham, I recorded the definitive voices in the recording studio of the University. I did this in order to carry out the lip sync at home with more time. I managed to advance much time in the production process.

The problem that I had was that although the dialogue was the same, all the duration and intonation of the sentences was different between the provisional and definitive voice. That caused synchronization error in some scenes. I had to re-do the lip sync for achieve good results.

Now I have already learned that it is better to have the definitive voices before starting production. Without this problem I would have saved a lot of time.

I edited audio files with Audacity software. I mix the images with the audio with Adobe After Effects software, replacing the provisional voice track by the new voices.

4.5.3. Sounds effect and music

The sound stage is my least favourite. I never liked the topic of audio too. And in this project I must to put sound into 46 scenes. It was a very mechanical work, but it required a long time to find the right sound in every situation.

I downloaded the sound effects of the web (copyright free) called "freesound.org". I downloaded music from the web (copyright free also) called "audionautix.com".

I edited audio files with Audacity software. To merge the images with the audio I used Adobe Premiere software.

4.5.4. Upload the videos to YouTube

When I had all the videos, it was time to create a YouTube channel.

The channel is: [youtube.com/Benscrazyday](https://www.youtube.com/Benscrazyday)

I created a header for show my work to the new users. I tried to give the cartoon look that has my project.

I upload all the videos and I did a custom thumbnail for each video. In the visibility option I put all the videos in hidden mode. All except the first video, which is in public mode. I did this to prevent the user can see the endings without see before the rest of the history.

Moreover, with this method I get more views, because for arrive to the ending, the user must start over history again.

- This is the user view of my YouTube channel:

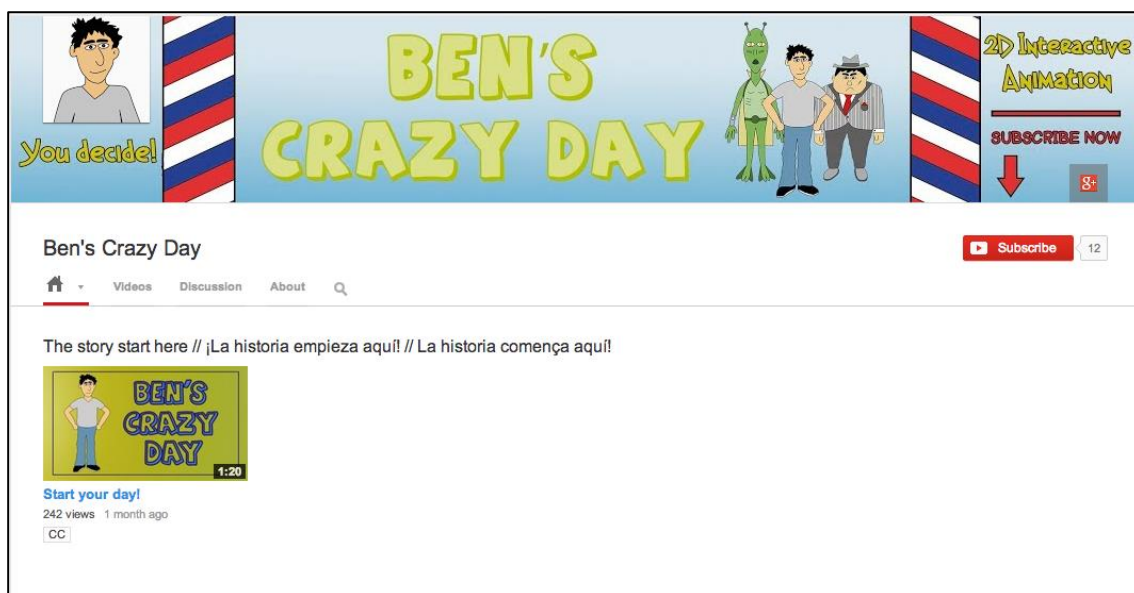


Figure 4.5.4.1. User view of my YouTube's channel

The user only sees one video. In addition to a title that says it is the beginning of history. My goal is to make this as clear as possible, to reach usual YouTube's users and also for the less common.

As you can see in the next picture, the channel administrator view is different. I can see all the videos in my channel. The user can only see the videos if they see the entire story.

- This is the administrator view of my YouTube channel:

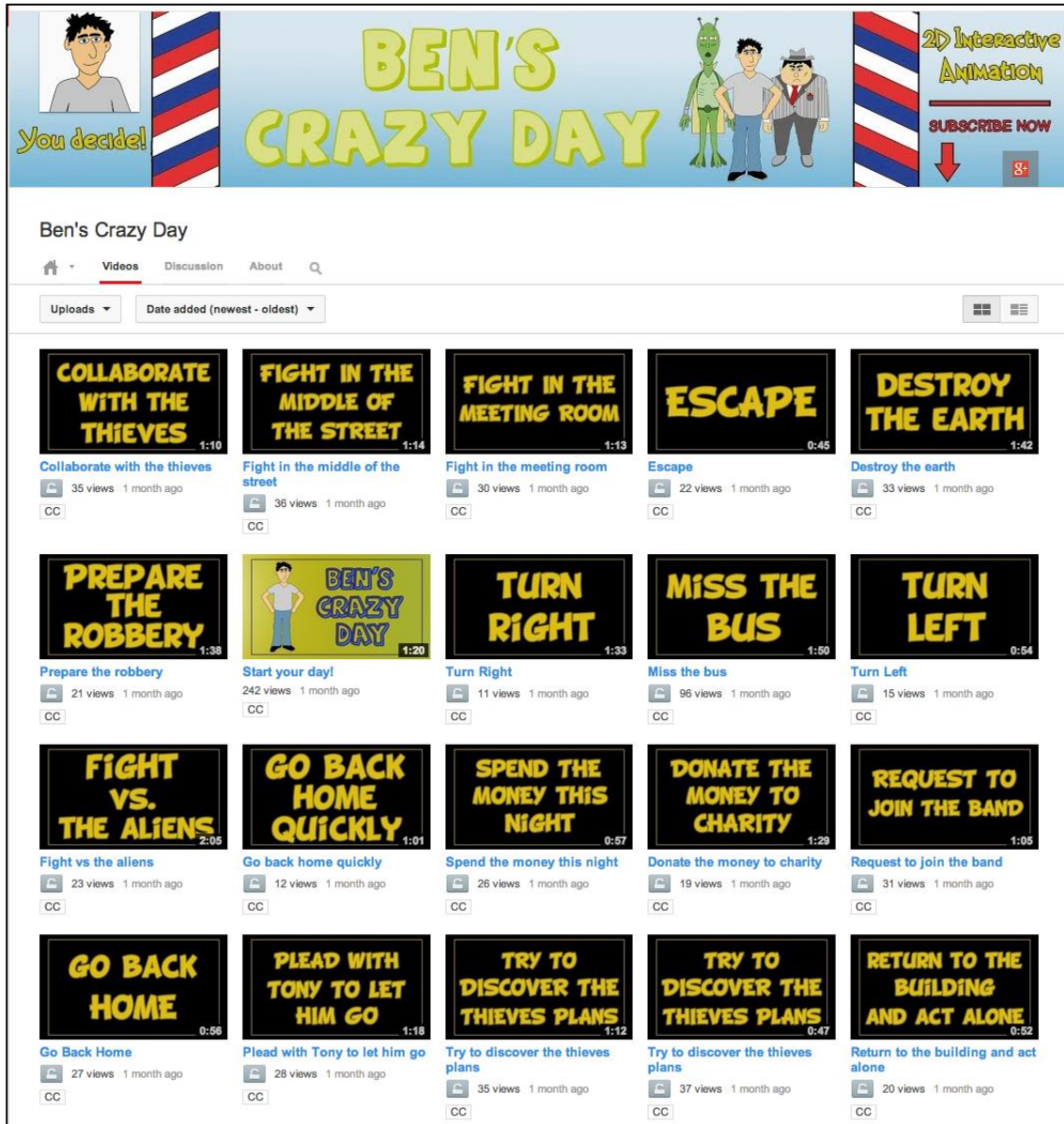


Figure 4.5.4.2. Administrator view of my YouTube's channel

Once uploaded all the videos, I began to unite them with YouTube Interactivity tool.

Below I will explain how to use the interactivity on YouTube:

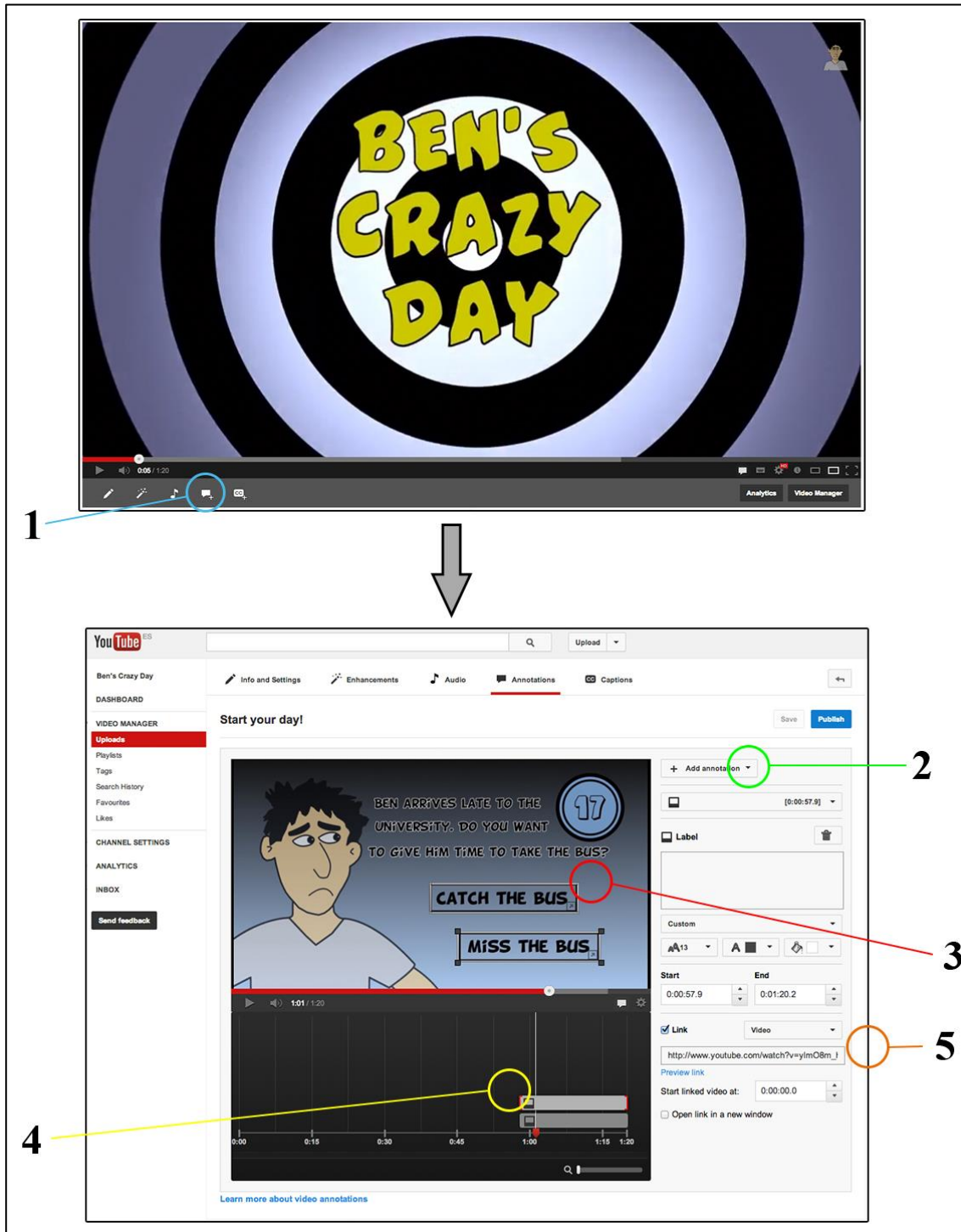


Figure 4.5.4.3. The interactive tool in YouTube

- 1) In the video where you want to create interactivity click on the "annotations".
- 2) It opens a new window. Click on "Add annotation" and select "Label"
- 3) On the video option put a rectangle. Like a button.

- 4) In the Timeline, you can adjust the label of the interactivity. We can choose how long you want displayed.
- 5) In the menu writes the following video link. So when the user tightening the rectangle the selected video starts. Finally you must to publish the video with these changes.

My project has a lot of videos. During the process of creating the interactivity I followed my storyline faithfully for not make any mistake uniting the videos. A mistake means that the story does not make sense, and therefore, the work of many months would not have been worth it.

5. Intellectual property

All music that sounds in this project has licensed to be incorporated into any project. All songs are extracted from a free music website called “*audionautix.com*” [15]. Their motto is: “Incredibly free music. No fees. No copyright hassles. Nothing”. Music with license: Creative Commons and Free Art.

Furthermore I put the song titles and the website link in the description of each video. So the webmasters can benefit from the visits that have my videos.

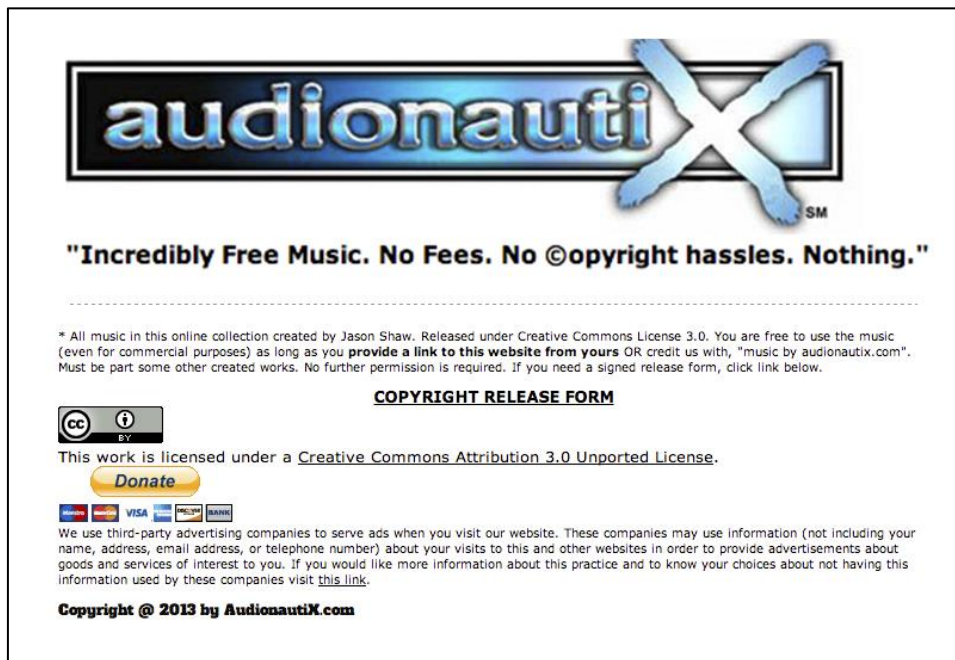


Figure 5.1. Terms and conditions for the use of music Audionautix.com

The sound effects that I have used in this project I downloaded from the website called “*freesounds.org*” [16].

This website is a community built around free sound effects, where artists can upload their projects for free and be downloaded by the public equally. Sounds with license: Creative Commons and Free Art.

Logically, I made all the drawings in this project. The voices of the characters are from classmates and teachers, who have agreed to collaborate on my project.

6. Conclusions

After many hours of work, my final feeling is very positive. This was the first time that I made a project of this size. I had never done a graphic adventure. This was the first time I have done a preproduction so complete. I had never planned to perform an interactive animation. I'm really pleased with the end result.

During these months I have been able to learn a lot. I have discovered the importance of the good ideas. The important thing is to do a complete preproduction, as this facilitates the work in the following phases.

Through this project, I was able to improve my drawing technique, and I was able to use often very useful programs like Adobe Photoshop, Adobe After Effects or Final Cut.

This project has allowed me to see first hand the difficulty of making an audiovisual project since its inception. I have seen all the hours of work that they have to spend for a project from the first idea to the last moment.

Doing this project I was able to discover my passion for this world. Now I value highly the animation projects. This year I checked how difficult it is to generate a single second of movie with good quality. On many occasions I have spent many hours working and the final result are reflected on the screen in few seconds.

In the coming months I want to keep in the world of animation. I have always loved the world of 3D animation, but doing this project, I have found that 2D animation is a very interesting world, so do not rule out forming me in this regard.

Finally, doing this project I have learned how important it is to be consistent. This was the first time that I did a project with so long. I had a lot work to do, so I had to organize my time well to complete the project successfully.

I've learned that if you work hard and consistently, although results were not yet visible, finally all the work worthwhile.

7. References

- [1] <https://www.youtube.com> YouTube website
- [2] <http://tv.disney.go.com/disneychannel/recess/> “Recess” Official website
- [3] <http://www.niñarepelente.com> “Niña Repelente” Official website
- [4] <http://www.calicoelectronico.com/> “Cálico Electrónico” Official website
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