Dissertations   Digital Media Centre

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Flash Animation Project: Written Report

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Media Authoring 2 – Semester 2: Dr. Brian Keegan

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Brief: Flash Animation Project

Understanding of the brief:

Submission of a written report (minimum 1500 words) about a Flash animation project to include the 3 headings of Animation Techniques, Story Telling and Audio along with a critique and an appendix.

Deadline

30 / 05 / 2005	Presentation of written assignment

Animation Techniques

The Flash animation is based upon one of Aesop's fables entitled 'The King's Son & the Painted Lion'. The animation has a consistent quality throughout. Attention to detail was applied to all aspects of the animation's development, including audio production, file structure and project management.

Quality

To give a certain uniform look to the animation the colours applied to all characters were within the web safe RGB range, including all character colours used in the crowd scene. The following colour references show an actual breakdown of the RGB colour values of each of the main characters.

Skin Tone: RGB (255, 204, 102)

King's Blue outfit: RGB (0, 51, 255)

King's crown: RGB (255, 204, 0)

Son's yellow outfit: RGB (255, 204, 0)

Son's red sash: RGB (255, 204, 0)

Son's hair: RGB (153, 51, 0)

Lion's coat: RGB (204, 153, 51)

Lion's mane: RGB (102, 51, 0)

For consistency a minimalist design approach was applied towards developing the characters. As they were intentionally rudiment in their design, relevant high quality real-life photograph backgrounds were used for the scenes into which the characters were placed to tell the story. This was carried out to enhance the story's credibility, to compliment the characters, to bring uniformity to the animation and to maintain a consistent quality. Using the Google, Raging and Yahoo search engines, suitable background images were found which were downloaded and manipulated in Adobe Photoshop before resizing them to 640 x 480 pixels and saving them as optimised *.jpg images to import into Flash.


Originality

A storyboard was developed through a series of thumbnail sketches which provided a visual guide for the animation. Research was carried out to develop the scenes and to bring credibility to the story. The internet proved to be a great resource for both audio and visual content, providing valuable reference points for the animation as the characters and background settings were being developed. Inspiration came from children's cartoons from the early eighties including, 'Roger Ramjet - Greatest American Hero', 'Stoppit and Tidyup', and 'Vicky the Viking'. These particular cartoons were suitable references because of their simple, yet distinct style of illustration, their effective use of dialogue and use of sound effects to communicate their particular story.

The three main characters of the story include the king, the king's son and the painted lion. The king was developed first, using pencil and paper to create the form of the character which was developed from simple geometric shapes. Outline shapes similar to the king character were used to develop the son and a modification of these same shapes were applied to create the lion character. The initial character pencil sketches were converted to digital form using an Epson flatbed scanner. Adobe Photoshop was used to converted the shapes to *.jpg images which were imported to Adobe Illustrator where they were traced using the path tool. Each character was produced as a series of symmetric vector shapes to import and animate in Adobe Flash. The vector shapes were brought into Flash using the drag and drop method, where graphic symbols were created for each shape to use as different instances on the stage. Simplicity was maintained in each of the character shapes. This allowed the shapes to be shown from different angles, at different angles, sizes and positions throughout the animation, without losing any of the story's credibility.
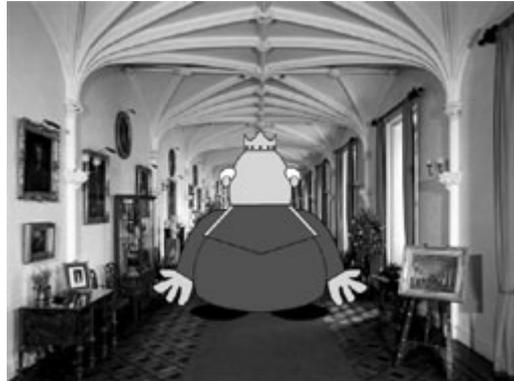
Techniques Used:

Once the project brief and the fable upon which the animation is based was received, planning for the various stages of the project commenced. These various stages ensured that that due consideration was provided to each part of the project's development and that the final animation would be produced to a reasonably high standard. The workflow for the project involved an eight stage process including, script, scenes, tone, characterisation, art direction, storyboarding, sound recording and animation. Both Macintosh and P.C. platforms and five different software applications were used to plan, develop and build the animation, including, Adobe Flash, Adobe Illustrator, Adobe Photoshop, TextEdit and Sound Forge.

The initial stages of the project involved attaining a full understanding of the fable which was then used to outline the animation script. With pencil and paper a simple storyboard was illustrated to translate the script into a series of thumbnail sketches. The storyboard told the story through pictures and words and it was used to incorporate direction, shot angles, sound and dialogue instructions. It proved to be an essential guide throughout the project, working to keep focus as the project moved through the various stages as the animation developed.

The characters and scenes were developed using Adobe Illustrator and were imported into the library of the Flash animation file which was set up as 640 x 480 pixels with a frame rate of 12 frames per second (fps). Each scene was allocated a folder in the library to store bitmap, symbol and audio content and all scenes, folders and content were named descriptively[1] for organisation and for the purpose of my own ease of access.

[1] For example the first scene is named 'sc1_opening_scn' and its corresponding folder in the library which stores all the elements used in the scene is called 'sc1_opening_scn_fldr'. Within 'sc1_opening_scn_fldr' three folders were created and entitled 'bitmap_fldr', 'grphc_fldr' and 'audio_fldr'. This naming process and organisation of files was applied throughout the animation to all of the 25 scenes and each of their respective library folders. All the animation's imported graphic content was converted to Flash symbols before they were placed as instances onto the stage.

For the opening scene an image of an old book was used upon which different symbol instances were placed and a combination of keyframing and motion tweening techniques were used. The alpha channel was reduced over time to fade in and fade out to introduce the story. A zoom into the book was used to introduce the next scene by increasing the scale of the image. The second scene added credibility and a sense of realism by moving through a series of location shots. Symbol content was introduced onto different layers and moved at different speeds over time to give the impression of an increased depth of field and add dynamism to the zoom in. The third scene introduced the main characters, the king and the son. After studying the well known 'South Park' cartoon animation it was decided to simplify each character's walk cycle by keeping the detail in the legs to a minimum. Variations of these same techniques were applied across all scenes and to all characters to achieve the different effects and to relate the story.


Story Telling

To tell the story a linear narrative was used, made up of a beginning, middle and end - Act One, Act Two and Act Three. In Act One the story was introduced, including characters and setting. Act Two is where most of the action takes place and takes up most of the running time. Act three is the resolution, where a satisfying conclusion is provided to finish.

Characterisation

The king character is the mentor, the son character is the hero and the lion is the threshold guardian[2]. The King character was given the apt appearance of a large, wise and solemn man, the garments were painted blue to denote authority and a white beard denoted age and experience. The son's garments were yellow to represent youth, innocence and naivety. A large chest and sash are meant to tell of interests in martial arts.

The inspiration for the lion character was derived from the combination of clip-art from the web and from a discarded Nestle bar wrapper. The angry lion is shown for a brief second to make the character more intriguing to the audience. Each character blinks and produces spontaneous hand and head movements through the animation, all of which give them an added sense of life. A simple walk cycle was developed for the characters to allow them to move through each scene smoothly, with the focus on telling the story to avoid getting any hang-up on minute details.
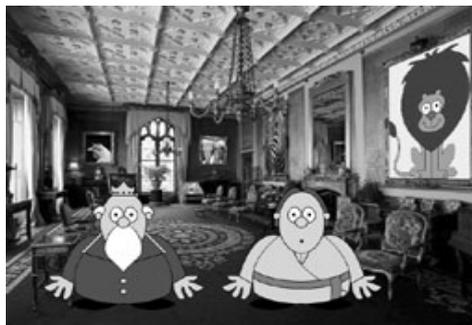
Tone

Although there is an unfortunate end for the king's son, the aim of the animation from the outset was to produce a light-hearted story. The aim was to set a humorous tone combined with a fast-paced animation using lots of different scenes to tell the story.

[2]There are seven basic archetypes, as classified by Joseph Campbell in his book the Hero with a Thousand Faces.

The styles of backgrounds used provided a great sense of history and work to suggest the Scottish Highlands as the location. Each building's interior is old, ornate and plush, where the characters are used to give the audience a walking tour of the magnificence and expanse of each abode. The dream sequence allowed for freedom to introduce and recycle abstract and cultural icons for effect and originality.

Originality

Using the storyboard as a guide to gather together a wide range of suitable findings from the research which was used to produce the animation from scratch based on Aesop's Fable. Whilst the photographic backgrounds used were sourced from the internet and the ideas for building the lion character were sourced from elements of clip art, they were juxtaposed in an original, unusual and creative way.

Audio

The introduction of sound into the animation added to its sense of depth and reality.
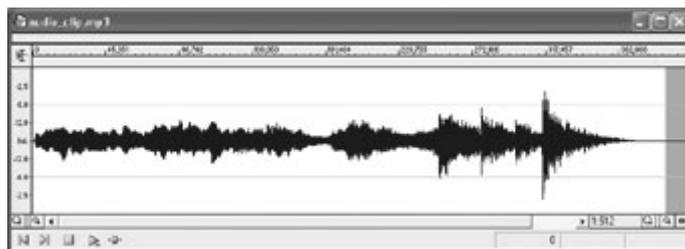
Dialogue

A recording of the spoken voice was used to create each character's dialogue. The dialogue was written down on a sheet of paper which was placed on a stand so as the reader wouldn't be holding it as it was being read into the microphone. A cardioid style dynamic microphone was used to record the voice but it didn't have enough signal strength when

connected directly to the Mac. To get around this problem the microphone was connected to a Minidisc player to amplify the signal and the line-out on the Minidisc player was in turn connected to the Mac. SoundStudio software was used to record the voice which was saved as a *.wav file. Sonic Foundry Sound Forge 6.0 software was used on a P.C. to edit and resample the recorded sounds and was then saved as MP3 Audio (*.mp3) as 16 bit, 22 KHz, Mono. One minute of audio compresses to a file size of approximately .45 MB. (about 22:1 compression) for import into Flash.

Effects

Free sound effects were downloaded from the following websites:

http://www.findsounds.com,
http://www.soundamerica.com
http://www.a1reesoundeffects.com
http://www.partnersinrhyme.com

Sound effects from the royalty-free CD's available from the Audio Department in the college at the DIT were also used. The sounds were in either *.au or *.wav format which were brought into Sound Forge and resaved as compressed *.mp3 format.

Music

Music for the animation was recorded directly from websites by using an iRiver HD320 MP3 player. A 3.5mm line-in was connected to the headphone of the Mac and the other end to the line-in port of the MP3 player and recorded at a sample bit rate of 128kbps. The HD320 was connected to the P.C. using a USB connection to download the digital audio content which was edited in Sound Forge and resaved as *.mp3 format.

All of the audio files were in *.mp3 compression format which were imported to the library of the animation by selecting File > Import > Import to Library. For sounds to play to a set point in a scene they were placed on the stage and given a starting and a finishing

keyframe and their properties were set to stream. For sounds to play across scenes, their properties were set to event.

Critique

The 'King's son and the Painted Lion' animation is an exciting and simple animation which introduces a variety of unusual and interesting characters in very detailed settings. Although the open storybook at the beginning is quite cliché, it is a suitable way to introduce the story. The typeface is ornate and hand written which immediately sets the scene for a story which has occurred long ago in a faraway place. The introductory music adds to the story's overall light-heartedness. The use of a long distance shot of hills and the castle gives great credibility to the story, applying a geographic location for the characters.

The castle is introduced through the trees by moving various layers off the screen and the sound of birds and insects work to add life to the environment. The king and son are then introduced. The son's character may have worked better if another actor was involved in creating and reading the dialogue, adding to the overall character and bringing it to life more. The characters have been designed well from the outset in that they are quite symmetric and work well for animation and allowing good freedom of movement.

The dream scene allowed the introduction of some abstract visuals and music which works to give the animation a contemporary edge. This scene also allowed for creativity with character movement and manipulation of symbols. As the king walks around the castle after a dream there is a great variety in the interiors on show to give the impression that the castle is quite big. The variety of the crowd characters demonstrates the flexibility and simplicity of the initial character design where slight changes create entirely new beings. The range of the characters in the crowd scene could be expanded upon with the possibility of introducing more.

The third scene was recycled which worked quite well when introducing the built palace, involving only a change in the background image. The lip synching could have been improved upon and a possible rerecording of the audio to improve quality would probably have worked well at this point. The distant faded shot of the palace through the fog worked well to give a sense of dimension.

Overall the animation works quite well to tell the story and relate the personality of the characters but the introduction of another actor's voice for character dialogue would be of great benefit.

Assessment

Animation Techniques

The animation demonstrated a good use of the available technology where ideas were well thought out and developed. A solid work process was applied and a good file management system was used throughout project.

Quality and attention to detail was adhered to throughout. Characters were very well designed and the introduction of more detail to clothing and facial expressions would add a great deal to their personalities.

Story telling

A story well told. A second look at the king's wake up scene might work to show the audience more clearly of the transition from dream to reality.

Audio

Good use of audio throughout the animation. The addition of more sound effects would work to add to the story's credibility and again the addition of one or two more actors for dialogue would add to the animations credibility.

Conclusion

The task of writing a report about the Flash animation project has provided and increased understanding of the software, its application and a knowledge of writing objectively for multimedia. There is a great deal of work involved in creating animations but it can also be quite rewarding they the finish product comes together.

Appendix

My appendix contains some of the originals and photocopies of the development stages of my animation project including' early storyboards, sketches, modifications to story and script, etc.

Bibliography

Patmore, C, *The Complete Animation Course. London* (Thames and Hudson) 2003.