

D I G I T A L A N I M A T I O N

Ed Hunton & Richard Knights – article also by Alistair Fitchett [This workshop was delivered by Richard Knights]

ABSTRACT

Using ICT-based animation within the classroom may seem to be a big challenge to the busy practitioner. This workshop dealt with various ways of getting started with ICT animation using approaches that are relevant to the Art curriculum. We used Photoshop and Flash software. One approach was to ask participants to take a series of digital still images which they get the computer to animate. We then built on the concept of a timeline and showed how Flash can be used to create a variety of different animations.

MAIN OBJECTIVES

With this workshop our main objectives were to give delegates a practical introduction to using the Macromedia Flash animation software, whilst setting the activity within a wider context of animation within a teaching and learning environment. Entwined with this was a desire to engender an environment where discourse on the value of animation and the use of digital technology within the curriculum could take place.

As an introduction the delegates were shown a range of short animated films made by a range of students from Year 5 to Year 11. These films were produced during workshops and Art lessons in Tiverton High School, Devon. Although these films were made using the Stop Motion technique and not with Flash, we felt it was nevertheless important to give a general overview of animation possibilities within the curriculum, and these films generated a good degree of discussion with some valuable points raised. Among these were:

- Stop Motion is an excellent introduction to animation, and through working in this medium students can learn a lot about such things as pacing, composition and scene choreography.
- There are many ways of working with the Stop Motion process; as well as the well-known claymation / plasticine type of work, Stop Motion can also be used to animate drawings, 2D shapes, and indeed any moveable object in two or three dimensions. This wealth of possibilities can lead to very rich and creative outcomes.
- Stop Motion animation is by its nature a time consuming process that requires a good deal of commitment and extended periods of concentration, although the nature of the exercise often means that students find themselves totally engaged for long periods of time. They often show themselves willing to commit fully to the lengthy process.
- The time requirements for Stop Motion animation are generally limiting: one day workshops work very well, whilst single lessons work less well due to the importance of maintaining camera position, lighting, etc.
- Many of the students we teach in our schools are comfortable and highly conversant with the language of moving image and technology and are already creating their own work in their own leisure time. Their confidence in reading technology and new media and in seeing its potential uses is often (though by no means always) highly developed, particularly at KS4. As a result, perhaps one of the biggest challenges of educators is to ensure that students are given the opportunities to learn through these technologies and media; and that furthermore, students be given the opportunity to communicate their knowledge and understanding through these new technologies and media.
- Some students can at times be more confident and conversant with technology and new media than their teachers, and another challenge facing teachers is the need to embrace and channel this knowledge and understanding as a means both of developing their own subject knowledge, and of ensuring that such knowledge is shared amongst the rest of the students in their tutelage.

Finally, in addition to the Stop Motion animations, the delegates were also shown a short film made at the Apple Teacher Institute 2005. This film used short sequences based on digital stills photos which had been worked on in Flash, and was intended in this context to display a bridge between the moving image/film nature of the Stop Motion work and what is possible with the Flash software. The piece of work was originally created as a means of modelling to KS4 students how to develop GCSE Art exam ideas through to a conclusion, and this fact generated discussion within the group into the value of teachers as practitioners and of sharing their own creative practices and processes with students.

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Delegates were next introduced to the fundamentals of the Flash software package. Important issues that were highlighted at this time were the concepts and functions of the Timeline and Key Frames. These were demonstrated by a simple exercise in which a stylised face is drawn over a period of a few seconds, with each key facial feature appearing in sequence. The use of multiple facial features also allowed for the introduction of the important concept of working with layers in Flash; one layer for the eyes, another for the hair, a third for the nose, and so on. Connections were made here to the importance of using layers within other software packages, such as Photoshop, and obviously to traditional drawn cell animation where the individual drawings would have been produced on transparent film. Delegates were also encouraged to make connections with other more traditional art techniques, for example encouraging students to think of ideas such as far distance, middle distance and foreground as existing as conceptual layers in a painting. The delegates then undertook this same face building exercise as an introduction to Flash, with assistance given individually as required.

This exercise appeared to be well received and the outcomes, whilst all successful in their technical execution, were enormously varied in their visual content. This in itself raised the important point that the software can be seen as a valuable tool for creative development, as well as for the development of ICT skills. Indeed, the point was made on several occasions that the Flash software perhaps uniquely offers enormous scope for those who wish to explore more aesthetic, right brain avenues, as well as those more interested in programming, scripting and other more typically left brain activities.

Following this exercise, the delegates were shown some more Flash work that demonstrated motion-tweening. The principles of tweening (where software fills in the gaps between Key Frames) were outlined, with the time and labour saving benefits of the technique being emphasised. The process of motion-tweening was then modelled using a range of prepared pieces of artwork based on scanned ink drawings manipulated in Photoshop. During this phase delegates were introduced to functions such as importing images to their animations, bitmap tracing and of course motion-tweening itself. The delegates once again began to work through the process, and much discussion was generated; much of it centred on the technical practicalities of using the software, but there was also much exploration of the idea of importing other elements to the animation, such as moving image video clips and sound.

In this exercise the delegates quickly began to see the enormous possibilities that lie in using Flash as a creative tool, not just as a means of producing animated sequences, but also potentially as a means of moving forward ideas for other media outcomes. For example, with the manipulated ink drawings, a creative process was suggested that took the following shape:

- Drawings intended to capture the fleeting nature of movement through a city by train are originally produced quickly in ink on paper in a sketchbook.
- These drawings are then later scanned and taken into Photoshop. The images are then considered and manipulated in conjunction with other stimuli (looking at the work of other artists, the introduction of symbolic or evocative colour, etc.) into new two-dimensional digital images.
- These images are then imported to Flash, bitmapped traced and given a simple motion tween, with the intention of showing the connection between the images and their original idea of being drawings that were about movement.

In discussion with the group, it was agreed that whilst each of the individual stages in the above process results in a 'finished' piece of artwork, what is perhaps more important to reflect on is that the work, whether produced using traditional media or technology, was rooted firmly in an idea. As an extension of this it was generally agreed that when working with new media technologies, particularly within the Art curriculum, the value of the work being ideas driven rather than technology led cannot be overlooked.

In addition, it was observed that a further stage of developing the work from this creative process might lead to an artist being inspired by some of the computer generated stages of the motion-tweening and developing a large scale non-figurative painting from a still frame in the animation. Whilst not strictly speaking connected to the animation aspect of the workshop, it was felt that this idea of using digital technology as a means of potentially developing ideas for non-digital artwork is again something that should not be overlooked by artists or art educators.

Although this exercise was quite complex for those who were complete novices with Flash, it nevertheless allowed everyone to see how relatively simple it is to create a very professional looking piece of work in a very short period

Ed Hunton, Richard Knights, Alistair Fitchett: Digital Animation

of time. This in turn raised the question of how the quality of output produced by software might potentially cloak or mask the amount of creative input by the artist. It was agreed that software can often make mediocre ideas seem highly polished and professional, and that one of the challenges facing teachers is for them to be familiar enough with software so that they are able to make judgements on how much the apparent success of a piece of work is down to the technology, and how much is down to the individual using the software.

We also looked at the idea of animation using motion tweens. The exercise involved the simulation of a ball bouncing in a two dimensional space. We used the techniques associated with drawing, motion guides and easing.

Finally the students were asked to consider the use of Flash as a conduit for video material. Whilst this was tackling another side of the application's functionality it was an important process to illustrate as Flash is becoming a dominant force in video delivery. The delegates were also given accompanying tutorial videos to help them implement these ideas.

In conclusion, the quality of work produced by delegates during the workshops, and the level of discussion throughout the sessions suggests that the original aims of the workshops were met and that delegates left both armed with introductory skills in using the Flash software and with enough inspiration to begin to implement and promote the use of animation and new media technologies within their teaching and learning environments.

Originally hailing from Devon, Edward Hunton studied Film at Glasgow University and has now been working in multimedia development for eight years. Specialising in Flash and Director, he worked on numerous commercial projects before joining Film Education in 2003. Whilst in his role with Film Education as Senior Technical Developer he has created many generic digital resources as well as interactive content for the internet.

Richard Knights is a Digital Media consultant for DCS and has worked with ICT for over twenty years - largely, but not exclusively, in education, covering a range of curriculum development with staff from different subjects such as Art and Maths. He also works in web development, basic skills and specific software training. Richard's ICT experience ranges from software such as the original MacPaint in the early 1980s through to today's PHP web-based applications. Richard Knights' current interests include how digital technology can best be used to promote learning, how people can communicate appropriately using ICT and how to use Digital Media to provide a medium that adds value and extends other areas of our life.