

Making digital stories in the classroom

Development

- What is the story you are going to tell?
- What genre will your story be in?
- What will you use to tell the story?

Pre- production

- Scout locations
- Create a storyboard
- Create a shooting schedule
- Create a shot list

Production

- Gather the required equipment
- Film the required scenes

Post- production

- Review the footage
- Edit footage
- Add sounds and music

Making digital stories can be a whole class project or undertaken in small groups. There are many roles that you can specialise in during the process:

- Script writing
- Storyboarding
- Filming
- Acting
- Location scouting and preparation
- Costuming/props
- Directing
- Producing
- Filming
- Editing
- Sound effects and music creation

This guide will provide you with some basic information to get started on the process of creating your own blockbuster.

General resources to get you started:

Making Moving Images, Viewing and Presenting Ideas Years 1-10 demonstrates how simply movies can be used in the classroom. The Ministry of Education provided this DVD to every school in New Zealand in 2005.

Kids Vid is a site to help teachers and students get started with using video in the classroom: <http://kidsvid.4teachers.org/>

In Film Street students can work their way through different aspects of how to make a good video. There is a downloadable video teaching PDF kit and video clips to analyse: <http://www.filmstreet.co.uk/default.aspa?flash=tt>

Film Education is a charity website with a wealth of resources to help you use video in the classroom: <http://www.filmeducation.org/index.php>

The Atomic Learning video storytelling guide covers basic video shots, composition rules and includes over 75 video examples: <http://www.atomiclearning.com/k12/en/storytellingindex.shtml>

What is the story you are going to tell?

Some questions to explore when thinking about the story you are going to tell can include:

- Who is the target audience?
- What are you trying to do – persuade, inform, entertain, shock?
- What is the main point of your story?
- What information is important to be included in your story?
- Who are the characters?
- Where will the story be told?
- What will be the beginning, middle and end?
- What is the complication and how will it be resolved?

Once you have explored the answers to these questions, it's time to consider the genre that will best fit the story you wish to tell.

Development

What genre will your story be in?

The genre will shape the script. As a class view and discuss the elements of different film genres and decide which one will tell the story you have in mind.

- Interview
- Documentary
- First person point of view
- Comedy
- Action
- Mystery
- Animation
- Music
- Reality TV
- Musical
- Drama
- Sci Fi
- Adventure
- Crime
- Fantasy
- News
- Sports
- Western
- Talk show
- Biography
- Game show
- Thriller

Once you have an idea of the storyline and chosen a genre, it is time to write the script. A good idea is to start with an outline and treatment before moving on to the script.

The American Film Institute (AFI) provide a video describing the main parts of an outline and treatment:

<http://www.youtube.com/watch?v=g5d0Y5xZAcU&feature=channel>

AFI also provide a video to introduce how to write a script:

<http://www.youtube.com/watch?v=2JcJNul9y4k&feature=channel>

What will you use to tell the story?

The equipment available will guide the type of story you can make. You will have to decide if you will use moving images (video), still images (photographs or drawings), animation (clay, lego, drawings/images) or a combination of these.

Moving images

Capturing images:

Do not despair if you don't have access to a video camera, there are many other devices that capture video. Have you thought of :

- Digital still cameras – most new digital still cameras can shoot video. There is sometimes a limit to the amount of video you can shoot, which can be of benefit as it ensures that each scene is not too long and encourages the use of multiple shots to show different viewpoints.
- Mobile phones – Youtube is populated by movies shot on camera phones. The grainy, realistic footage captured on these phones can add an authenticity to your movie when interspersed with footage captured on other devices. Compare the different types of footage used in programmes such as Target. The grainy, handheld footage used in this show indicates undercover work.
- Computer cameras – most new laptops have built in cameras and programmes that allow you to capture movies. These could be used to capture straight to camera dialogue.

And of course this equipment can also capture still images.

Editing moving images:

iMovie (Mac) (free)

Movie making is simple on a Mac using *iMovie*. This program comes already loaded on all Apple computers. There is an online tutorial to help get you started:

<http://www.apple.com/ilife/tutorials/#imovie>

The previous version of *iMovie* is still available, which some people may prefer. You can download it from the Apple website: <http://support.apple.com/downloads/#imovie%20hd>

A tutorial for this version is online: <http://www.apple.com/support/ilife/tutorials/imovie/>

TIP: Some digital video and still cameras output footage as .avi or .mp4 files. *iMovie* doesn't work with these types of files and you will need to convert them. *Mpeg Streamclip* is a free video player, converter and editor available for Mac and PC. Use this application to convert the .avi or .mp4 to *Quicktime* (.mov) then import this file into *iMovie*:

<http://www.squared5.com/>

Windows Movie maker (PC) (free)

Movie Maker is the movie editing software that comes preloaded on a PC. There is a newer version for download – *Movie maker 2*:

<http://www.microsoft.com/windowsxp/downloads/updates/moviemaker2.msp>

Microsoft offers support with using this software:

<http://www.microsoft.com/windowsxp/using/moviemaker/default.msp>

Atomic Learning is a site that offers short sharp tutorials for a range of software. This site is normally by subscription only, however their *Movie Maker 2* tutorial is free and is the one stop shop for learning how to use this software:

<http://www.atomiclearning.com/k12/en/moviemaker2>

Still images, animations

You can build your digital story using images created with a digital camera, or by drawing, either digitally or manually. The following are applications which can be used to turn these still images into movies.

PowerPoint (Mac)

The Mac version of *PowerPoint* allows you to export your finished presentation as a Quicktime movie and is a powerful tool for creating digital stories. This software is currently free for schools using Apple computers under the Microsoft licencing agreement.

- A simple story could be made by adding a single image to each slide and recording a voice over to go with each image.
- A more complex story could be made by creating scenes on each slide by overlaying images, drawings, adding sound effects, music, voice overs and transitions.
- Animations can even be made in *PowerPoint* by modifying each slide slightly and setting the transitions to less than a second.

PowerPoint (PC)

Digital stories can be made as above using PowerPoint on a PC and then shared using an online service such as SlideShare (<http://www.slideshare.net>)

iMovie (Mac) and Windows Movie Maker (PC)(free)

These two applications, as described above, can be used for still images as well as moving images.

KidPix (Mac and PC)

KidPix is not a free programme however is found in many schools, mostly in the junior classrooms. If you have access to this programme it can be used in the same way as PowerPoint. Individual slides are created where you can draw or upload an image. There are sound effects and the ability to add a voice over to each slide. The slide is then added to a slideshow and the slideshow exported as a Quicktime movie.

Photostory 3 (PC) (free)

Photostory 3 for Windows is a free software available online for download:

<http://www.microsoft.com/windowsxp/using/digitalphotography/photostory/default.mspx>

This is a really simple and powerful piece of software that takes you step by step through the building process to add images, special effects, soundtracks and narration. You can even touch-up, crop and rotate your pictures within the software. The finished project can be exported as a Windows Media Video file (.wmv)

Comic Life (Mac and PC)

Comic Life is another application found in many schools. With *Comic Life* you can create comics, picture albums, captioning, lettering, speech balloons and more. These images can then be exported as a jpg to be used in your movie: <http://plasq.com/comiclif/>

Pivot stick (PC) (free)

Pivot Stickfigure Animator is available online for download.

(<http://www.softpedia.com/get/Multimedia/Graphic/Graphic-Others/Pivot-Stickfigure-Animator.shtml>)

As the name suggests, this software allows you to create stick figures and then use a timeline to animate them. The result can be saved as an animated gif file and used in conjunction with other projects or on its own.

Scratch (Mac and PC) (free)

Scratch (<http://scratch.mit.edu>) is a programming language which can be used to make interactive stories, animations, games and more. There are videos on the site to explain how to use the software and how to upload your finished project to the Scratch website. The finished story can be embedded on other websites.

Alice (Mac and PC) (free)

Alice (<http://softwareforlearning.tki.org.nz/Products/Alice>) is a programming environment where students can program interactive 3D graphics to make animated movies.

Online applications for digital storytelling

Voicethread

Voicethread (<http://voicethread.com/#home.b409.i848804>) is an online site that allows you to upload images or video into a slide. The power of this online tool is that different people can add audio or text around the sides of the voicethread. Comments can also be added by visitors using audio or text. Voicethreads can be embedded on other websites.

Animoto

Animoto (<http://animoto.com/>) makes a music video type digital story. You upload images and text and the application puts it all together with unusual transitions to tell the story.

Masher

Masher www.masher.com, as the name suggests, lets you create videos through mashing together images, videos and music clips. The site provides you with free use of high quality images, videos and soundtracks to use alongside your own creations.

Photopeach

With Photopeach (<http://photopeach.com>) you can make an online photo slideshow. You can add background music, captions and comments. The finished product can be embedded on *other* websites.

Sketchcast

Sketchcast (<http://sketchcast.com>) is a site where you can use the drawing tools to create an image and the application records the process of drawing. You can also add a voice over as the drawing emerges. It is a very simple idea. The finished product can be embedded on other websites.

Finding moving and still images online

There are many sites online that provide images free of charge to be used in your projects. It is important to read the licencing requirements from any site that offers images to ensure you are using the footage legally.

Morgue File provides free images for use in your creative work. You are free to remix, and use these images without attribution under the condition that you don't claim ownership to the original image or distribute it in its original form: <http://morguefile.com/>

Flickr is a photosharing site where many users allow their images to be used under a creative commons licence. There are different levels of this licence, however mostly, you can use the work if you place an attribution in your movie to acknowledge the author. Flickr Storm is a way of searching for these creative commons licenced works:

<http://www.zoo-m.com/flickr-storm/>

Stock Footage for Free is a site that provides movies that can be legally downloaded and used in your projects:

<http://www.stockfootageforfree.com/>

Adding sound to your digital stories

The best way to add sound or music to your movies is to create it yourself. It can be difficult to locate music online that can be easily or legally used in your projects.

The learning opportunities in creating music and sounds for your movie are many. Exploring the role of a foley in movie making is interesting. The Los Angeles Times provide a nice short clip explaining what a foley artist does:

<http://www.youtube.com/watch?v=UNvKhe2npMM>

Another learning opportunity is in exploring how music adds to the feeling of a movie. Explore the differences in music and sound in different genres. Decide on and create the type of music and sound effects you will need for your story. The following are applications which allow you to create your own soundtrack.

GarageBand (Mac) (free)

GarageBand comes preloaded on Apple computers. This simple to use programme is full of sound effects and music loops to build up your own soundscape.

A tutorial is provided on the Apple website:

<http://www.apple.com/ilife/tutorials/#garageband>

Audacity (Mac and PC) (free)

Audacity is a free audio editor and recorder. It doesn't include any music loops but it does let you record and mix your own sounds:

<http://audacity.sourceforge.net/>

Aviary Myna (Mac and PC) (Online)

Myna is an online music creation platform which allows you to mix music tracks and audio clips, add sound effects and record your own voice or instruments. It is similar to *GarageBand* however it is completely online so it is cross platform:

<http://aviary.com/tools/myna>

Finding music online

It is a little more difficult to locate music for legal use online. It is important to read the licencing agreement of any 'free' music site.

Jamendo provides music for download under creative commons licencing:

<http://www.jamendo.com/en/>

Free Play Music is another site to access music: <http://www.freeplaymusic.com/>

A note on copyright

You cannot legally use commercially produced images or music in your work without consent from the author or owner of the work.

The NZ Education site TKI provides guidance on copyright for NZ schools:

<http://www.tki.org.nz/r/governance/copyright/>

More information can be found on the NZ Federation Against Copyright Theft:

<http://www.nzfact.co.nz/whatslegal.html>

A new form of licencing has been developed to allow creators to provide their images and music for legal use under certain conditions. You can read more about creative commons licencing on the creative commons wiki: <http://wiki.creativecommons.org>

Once you have decided on the story you wish to tell and the script has been written, the next step is to plan out how the digital story will be shot by finding locations, creating a storyboard and putting together a plan for action.

A green rounded rectangular button with the text "Pre-production" in white, centered within it.

Scout locations

In the movie trilogy *Lord of the Rings*, the scenery of New Zealand was classed as another character of the movie. Find locations that fit the style and plot of your digital story. What places are available for you to safely shoot your scenes that will add to your digital story stylistically?

Storyboarding

Many elements combine to make a digital story – sound effects, music, lighting, how the camera is used, acting, dialogue, props, and location. A storyboard helps you to visualize how all of these elements will come together to tell your story in the way you had in mind.

A storyboard is a graphic organiser that visually tells the plot of your digital story panel by panel. This helps to organize and focus your story, and make sure it fits within your time frame and available resources. A good way to introduce storyboarding is to watch the extras on children's DVDs such as *Shrek* and *Monsters Inc* where the actual storyboard from the movie is shown.

Another way to learn about storyboards is to work backwards. Take a very short television commercial and break it down into a storyboard. Discuss how you would indicate camera movement, sound, and the movement of actors or props.

AFI provide an education video detailing what a storyboard is and why it is useful:

<http://www.youtube.com/watch?v=pWPjjoOFIu8>

This site provides some examples of drawn storyboards, however without camera direction or dialogue:

<http://www.storyboards-east.com/storybrd.htm>

A storyboard is essentially a comic strip of the story and can either be drawn on paper or created using the computer. The drawings do not have to be works of art. Quickly drawn stick figures with arrows to show movement and camera placement will suffice. *Comic Life*, *PowerPoint*, or *Keynote* are useful computer programmes for creating storyboard panels. The benefit of creating the panels on the computer is that they can easily be changed when you look at the project as a whole and discuss the best way for the story to be told. The panels can be printed out and put on the wall for group discussion.

A storyboard can be made up of different key parts:

- Drawing indicating where actors will be placed (can be stick figures)
- Any action (actor moves from left to right of screen etc)
- Placement, movement and use of cameras (panning, zooming, high angle, over the shoulder etc)
- Lighting requirements (day, night, long shadows, street lamp etc)
- Dialogue
- Background music to create atmosphere
- Background sounds

Benefits of using a storyboard:

- It is a lot easier to fix problems in pre-production. By visualizing the story you can see what works and what doesn't. Identify any extra scenes that may be needed to help tell the story, or delete any scenes that don't work.
- A storyboard involves everyone in the telling of the story. As everyone takes part in the discussion, more people see their ideas being included in the story and feel ownership of the project.
- Lots of extra ideas can be generated through the visualizing and discussing of the story.
- Through planning the storyboard you can make sure that lots of different camera shots are used. The effective use of the camera can add more to a story than dialogue.

Example storyboard panel

Shot no: 11	Camera: Point of view shot
	
Dialogue: "I've had a terrible day today"	
Action: Slowly open car door, Slam door when seated, turn to driver	
Location: Outside school	
Sound: Children laughing in the background, door slamming	
Music: Song playing on the radio	

Shooting schedule

With your storyboard in hand, break your movie down into a shooting schedule and shot list. To make the best use of time and equipment movies are not shot in a linear fashion. Shots can be grouped in many ways for example:

- All scenes shot in the same location
- All scenes shot with the same props or costuming
- All scenes shot with the same characters
- All scenes shot at the same time of day

Care is needed when shooting out of order. Your movie will seem disjointed if one scene is in bright sunlight and the next scene is in overcast wintry weather, unless this is a necessary part of the script. Put together a schedule for shooting to meet your deadline and make efficient use of the equipment to hand.

Shot list

Your shooting schedule can be further broken down into a shot list. There are many shots that can be gathered independently. By grouping shots you can have different groups filming or gathering footage at the same time.

- Supporting shots – a group could be gathering all the close up and cut away shots of locations and objects that will be used in the digital story.
- Separate scenes – different scenes can be shot in different locations with different actors if that is possible in your storyboard and with your available equipment.

In this part of the digital story making process, specialising into different roles will help achieve the end product:

- Script writers continue with script
- Storyboarders continue with storyboard
- Location managers find and prepare locations
- Props and costuming in production
- Actors learn their parts
- Directors decide on how each scene will look
- Camera operators learn how to use the cameras and equipment
- Sound editors begin to prepare the music and sounds

With your storyboard in hand, a detailed schedule and shot list, and timetable for use of available equipment, it is time to start on the production phase.

Production

TIP: Remember to let the camera roll for at least 5 seconds before shooting begins and at the end of each scene to allow editing.

It can be fun to use appropriate language while filming.

Silence on set Roll tape Action
Sound check This is a take
Camera check
Stand by This is a rehearsal Cut

Here are some steps for setting up each shot when shooting moving images or setting up a still image photographic scene:

1. Camera person sets up the shot from the storyboard and the director checks then approves it.
2. If the scene requires movement set up 'marks' for actors to hit and rehearse with the camera.
3. Check that the sound and lighting is sufficient.
4. Roll tape, check footage, and reshoot if required.

Filming techniques

Having a basic knowledge of filming techniques will make your digital story more dynamic. A long continuous dialogue is boring to watch. This is better to be broken down into different shots, angles, and camera movement while the dialogue continues.

Types of shots include:

- Extreme wide shot
- Very wide shot
- Wide shot
- Mid shot
- Medium close up
- Close up
- Extreme close up
- Cut in
- Cut away
- Two shot
- Over the shoulder shot
- Noddy shot
- Point of view shot
- Weather shot

The following site has examples of these shot types

<http://www.mediacollege.com/video/shots/>

The angle at which the camera is held is also important:

- Eye level angle is one of the most commonly used shots. This tells the story from the viewers perspective.
- Low angle – in this shot the camera looks up at the subject which makes it seem important or powerful.
- High angle – in this shot the camera looks down at the subject which makes it seem smaller and less important.

Camera movement can be used to enhance your movie. A note of caution though, use camera movement sparingly to avoid creating a sense of motion sickness in your viewers:

- Pan – in this shot the camera moves in a horizontal direction from left to right or right to left. You might use this to follow a subject as it moves across the room.
- Tilt – in this shot the camera moves in a vertical direction from top to bottom or bottom to top. You might use this to take in the height of a tall building, or in a point of view shot to show the height of a person.
- Zoom – this shot takes you closer to a subject. You might zoom from a mid shot to a close up to show the emotion on a subject's face.
- Reverse zoom – this shot takes you further away from a subject. You might zoom out from an individual flower to show the entire field of flowers.

The opening credits of the film *Shrek* provide an excellent demonstration of the camera shots, angles and movements outlined above, as well as the use of lighting. Watch the opening sequence, pause after each cut and discuss what type of shot was used, why the director chose that shot, and what was its impact .

TIP: When one digital camera is going to be used by different groups, have two memory cards and a card reader. This way when the camera is being handed over to the next group you can swap the cards and the first group can download their footage using the card reader. This makes more efficient use of the camera as it is not needed for the downloading process.

The same process can be used by having different tapes for your video camera. Each group can have their own named tape. This avoids footage being accidentally taped over.

Once all the footage has been gathered it is time to move onto post-production which involves editing and exporting of your final product.



Post-
production

Review footage

It is helpful to be organised. Name each clip or image to make them easier to find when you need them later. Organise the footage into folders before you start on the rough cut.

Editing

The first step in editing is to place all your footage into your chosen editing software according to your storyboard. This is called the rough cut. Questions that need to be asked at this point are:

- Are any shots missing that still need to be filmed?
- Do any parts of the digital story need to be discarded or reshot?
- Do the shots run together smoothly or are more shots needed to make the transitions work?
 - Tip: Cut on motion - Motion distracts the eye from noticing editing cuts. So, when cutting from one image to another, always try to do it when the subject is in motion. For example, cutting from a turning head to an opening door, is much smoother than cutting from a still head to a door about to be opened.
 - Tip: Match the scene - The elements in shots should match up. For example, a subject who exits frame right should enter the next shot frame left. Otherwise, it appears they turned around and are walking in the other direction. Or, if the subject is holding something in one shot, don't cut directly to a shot of them empty-handed. If you don't have the right shots to make matched edits, insert some cut away shots in between.

Adding sounds and music

Once all the visual elements are in place it is time to add the music, sound effects and any voice overs.

Adding end credits

Don't forget to include every person in every role in your end credits. Find out the official name for each job. For example, what is a grip and a best boy?

Exporting your video

There are two main formats for exporting your video:

- Quicktime movie (.mov or .mp4)
- Windows Media Video (.wmv)

Depending on the settings chosen for exporting you may end up with a large file size and this will need to be compressed. Anything larger than 20MB for a 5 minute film is too large.

Some settings that can be changed to reduce video size include:

- Reducing video dimensions
- Switching the audio from stereo to mono

For *Windows Movie Maker* users, here is a video explaining how to compress your video:

<http://www.thevideoawards.com/details/?id=ac5c93af-5baf-46e4-9ba2-6a363a3ebaf9>

And here are step by step screen shots:

http://www.csus.edu/indiv/r/rodriguezr/373BSpr08/steps_to_reduce_video_file_size.htm

For *iMovie* users, here is a video explaining how to compress your video:

<http://video.about.com/desktopvideo/Apple-iMovie-4-web-export.htm>
