

A Guide to Digital Storytelling

(compiled from the BBC site)

<http://www.bbc.co.uk/wales/audiovideo/sites/about/index.shtml>

Introduction to Digital Storytelling

by Daniel Meadows

Digital Stories are short, personal, multimedia scraps of TV that people can make for themselves.

They're 'mini-movies'. Desktop computers enabled with video editing software are used to synchronise recorded spoken narratives with scans of personal photographs.

This project requires commitment for, as well as all the technical stuff that must be learnt, script writing, picture editing and performance skills are also needed and these have to be worked on, which is why most Digital Stories are made by people attending workshops where participants can benefit from the help and advice of facilitators.

People of all ages and abilities make Digital Stories and many have testified how rewarding the experience is for, when their story is shared with friends and family or posted on the web, they find they have discovered a new voice.

There's a strictness to the construction of a Digital Story: 250 words, a dozen or so pictures, and two minutes is the right length. As with poetry these constraints define the form (e.g. a haiku is a poem written using 17 syllables, and the 14 lines of a sonnet are written in iambic pentameter) and it's the observation of that form which gives the thing its elegance.

Introduction to these guides

by Gareth Morlais

The Digital Storytelling team at BBC Cymru Wales ran monthly workshops all around Wales between 2001-07. Our plan has always been to encourage others to

adopt and adapt the skills of facilitating production and this has succeeded because, as we had hoped, these activities are growing around Wales. Now more than ever BBC Wales welcomes those making stories and videos like this to send them to us so that we can consider them for publication.

Whether you're an individual making your own or a facilitator helping others to make theirs, here's a set of how-to guides that we hope you'll find useful. We cover the technical, the editorial, the storytelling, and more. We hope you find these guides useful. Happy storytelling!

Briefing Participants

It's important to brief people before they start making their digital story, so they feel both relaxed and fired-up.

Briefing Participants by Carwyn Evans

We've all been in situations that are new to us. Since our first day in school, we often feel we're in unknown territory. Coming to a digital storytelling workshop or session is no exception.

Briefing participants as fully as possible before embarking on the process is invaluable to the success of the workshop as it serves two purposes. One is to ensure that the participants are suitably prepared and the other is to alleviate any fears or concerns they may have with what lies ahead. Meeting the contributors beforehand is by far the best way of relaying the information required and in cases where this isn't possible, the necessary information should be shared over a phone conversation.

We call this bringing together of participants 'The Gathering'. This session is an introduction to digital storytelling and a chance for contributors to meet others and members of the team that they'll be working with over a cup of tea and biscuit! This informal session is very important as it sets the mood for the rest of the workshop... a non-competitive atmosphere of sharing and collaboration.

A lot of ground is covered at the Gathering. We watch different examples of digital stories to get more of an idea of what the final digital story could look like and to help develop ideas for how the story could be crafted.

It's important to cover the following aspects at the Gathering:

- * Where digital storytelling comes from.
- * Explain and show examples of the digital storytelling form that participants will be working with.
- * Explain each step of the process necessary to complete the story.
- * Go through the preparations required from the contributor in advance of the first workshop session.
- * A small briefing on editorial and copyright issues. This is especially important as it could affect where the finished story may be displayed.
- * Explain what happens to the stories once they're finished.

Participants should be allowed plenty of time during this meeting to raise any questions or concerns about the process. It's also good to leave contact details should participants wish to contact a member of the team in the time leading up to the first session.

The Gathering is a lot of fun and participants soon find themselves at ease with one another and those around them. People leave brimming with creative ideas on how they can approach their own story - some have even been known to delve in the attic for photographs straight away - and you, in turn, leave very excited about the sessions ahead.

The Ideal Digital Storytelling Venue

If you're running a digital storytelling or video workshop, you'll need a suitable venue. Here's how to choose one.

The Ideal Digital Storytelling Venue by Karen Lewis and Gareth Morlais

Look for a venue with disabled access to all rooms, including toilets and eating-places. There also needs to be reasonable access and parking for the van if your project is one that tours. Ideally, parking close by for people driving to the workshop. If this is not possible, let people know how to get to the nearest car park. The venue should be accessible by public transport.

It's useful to have three spaces available during the workshop:

1. Main Room

This is where the digital stories will be made. Best if it's lockable and alarmed if equipment will be left overnight. There needs to be enough space, tables and chairs to accommodate all the equipment and people. Power points along two sides of the room makes safe rigging easier. It's good if it has natural light and ventilation and can be made dark enough for images from the data projector to have impact. E.g. some kind of blinds or curtains for blackout.

If you're running a workshop - as opposed to one-to-one - set the furniture out classroom style, in rows, facing the screen. Allow space for the data projector to show from the back of the room. There also needs to be enough space in the room to accommodate additional equipment (scanners, printer, camera chargers, etc.) and to allow trainers to move comfortably between storytellers.

On different days, this main room may also be used for briefings, image capture and script sessions. On the storycircle day, up to 14 seats arranged around a big table seems to work well.

2. Sound-recording room

This room needs to be very quiet indeed. Switch off any noisy lights, air conditioning, fans, clocks, computers, etc. The fewer echoes in the room the better; clutter is good. This room needs to be available throughout the production workshop. It can be small - just big enough to accommodate three people, recording equipment and microphone. There needs to be power points.

3. Break-out space

People will be working intensively together, maybe over a longish period. This can become quite claustrophobic if there are no break-out spaces available. This could just be a cafeteria, a foyer with seats or even an outside sitting area. It just needs to be somewhere for people to wander to if they need a break.

Draw up a fresh risk assessment for each project.

Venue Checklist:

1. The Recce

Nearby parking and public transport

Accessibility for wheelchairs with no trip hazards

Two large-enough rooms:

- * main one undisturbed all day and able to be blacked out with sufficient chairs and tables

- * audio-recording room to be quiet with nice acoustic

Breakout space is nice to have too.

Security issues thought about

OK to leave equipment overnight. (I.e. no basket-weaving class booked into venue in evenings)

Power points

Ask about cost of hiring venue and payment method

Catering - times and numbers of people for teas/coffees and meals.

2. Between the formal booking and arriving for first day:

- * need contact details for keyholder and make arrangements for unlocking and locking

- * specify seating layout and placement of tables

- * firm up any additional requirements like screen, flipchart, etc.

- * confirm catering arrangements: times, locations

- * think about extras like bottled water and glasses for storycircle

- * ask for a running tab at the restaurant till so unexpected extras can be charged to room bill.

Finding the Story by Gilly Adams

Remember that everyone has a story to tell and it's only a matter of coaxing it out of yourself or someone else, although most people don't need much coaxing!

* Running some kind of story circle with word games and memory sharing is a way of helping people to relax and stop being self conscious. If necessary, use some kind of stimulus: a picture or an object can provide a good starting point.

* Remember that grammar and spelling are not important. This is a spoken story and not a homework exercise. The crucial thing is to speak normally and sound like yourself.

* If you are stuck for a topic think of something about which you feel passionate or focus on an event in your life which provoked a strong emotion - happiness or anger or sadness.

* You don't have to change the world with your story but it is a special opportunity so use it so tell a story that is important to you: this needn't mean having to bear your soul or be too serious. Some of the most successful stories are funny.

* Remember that, ideally, this story will only last two minutes and be no more than 250 or 300 words long so if you have the material for a three-hour television documentary (e.g. the complete history of the place where you live), or a long novel (e.g. complicated ins and outs of your family history), it will not be suitable for this medium.

* Don't be put off by having to be brief. It seems daunting at first but your story will benefit by being boiled down to its essence.

Digital storytelling works best a group activity. Of course, it's absolutely possible to make a digital story by yourself, but working together as a group enhances the experience.

- In the story circle participants bear witness to each other's stories and offer support and advice.
- The more computer literate are able to help those who are less so.
- Having company maximises the opportunities for having fun.
- The sense of achievement at having made a story can be celebrated fully when everyone gathers to watch the final films together and share comments and congratulations.

Getting the Story Down on Paper

Getting the Story Down on Paper by Gilly Adams

- * Don't sit about looking at a blank sheet. Give yourself a time limit and just write. Don't judge at the beginning.
 - * Remember that spoken words are only heard once, in contrast to the written word which can be re-examined. Clarity is important. Avoid repetition unless it is deliberate. Find other words. Don't use literary expressions or connecting phrases like "as I mentioned before". They will jar on the ear.
 - * Find your own voice. Don't imitate. Be aware of how you like to use words and have the confidence to use your own idiom.
 - * Picture what you are writing about in as much detail as possible - feelings, colours, textures, smells. This will influence how you write.
 - * You don't have lots of words so plunge in. There's no need to tell the story in a linear way, even though it will require a beginning, middle and end. Find what's most arresting and start there. It may be from any point in your narrative.
 - * Don't get too attached to the exact facts. Don't let them get in the way of the truth.
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Refining and Completing the Story

Refining and Completing the Story by Gilly Adams

- * Try your story out on others and get feedback. What works and what doesn't? Are you being clear? Have you left out something important that was there originally?
 - * Less is more. Expect to re-write and re-write. Edit rigorously. What is the essence of your story? Attempt to express that in one sentence. Now make sure that you have nothing unnecessary. Does everything move the story on?
 - * Avoid cliché and banal sentiments. Phrases like "he's always there for me" are exhausted. Look for a fresh form of words.
 - * Generalities are lazy and close things down. The specific, well observed detail is what will resonate.
 - * Remember that, whilst an anecdote can meander, a story needs structure. The end needs to have some connection with the beginning to be satisfying. Think of stepping stones. When you reach the other bank of the river you should still be able to see the bank from which you started the journey.
 - * And the stepping stones are important. They are the steps that build the story. Make sure you haven't missed a vital step out.
 - * Treat your story with respect as though it were the best story in the world.
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Tips on Publishing your Story

A round up of some things to keep in mind when making a digital story with a view to sharing it later.

Tips on Publishing your Story by Lisa Jones

If you're thinking of submitting a completed digital story to a broadcaster, website or maybe film festival for public screening, take a look at the following guidance on good practice for publication.

Three Golden Rules

1. Use your own words - write as you would speak.
2. Use your own photos - stick to the family albums.
3. Use your own music - if you want music in your story, write, perform and record it yourself if you can. But don't worry, there are exceptions listed later.

Avoid using other people's work:

- * Commercial music, that is to say music taken from a published CD / DVD / vinyl record or cassette tape.
- * Photos taken by anyone other than your, your family or friends.
- * Photos or clips of other people's children (under 18 years of age).
- * Photos or images of artistic works.
- * Scans or images from newspaper or magazine articles, CD or book covers, works of art etc.
- * Grabs or clips of any DVD or video other than your own family.
- * Grabs or images from websites.
- * Posters, calendars, brochures or maps - even if they feature in the background of a photo.
- * Company brands and logos such as Nike, Adidas, Coca Cola etc.
- * Quotes or lines from poems, songs, books, magazines, pamphlets, websites etc.
- * Letters written by people other than you or your own family because the person who wrote the letter owns the copyright, and not the recipient.

Only if absolutely essential consider using:

- * Non-commercial music that has been composed and performed by a member of your family or a friend.
- * Traditional music where the composer is anonymous (as long as it's not taken from a commercial CD). For example, you or a member of your family could sing *Auld Lang Syne*.
- * Music composed by someone who has been dead for more than 70 years (as long as it's not taken from a commercial CD). For example you or a member of your family could play Chopin's *The Minute Waltz* on the piano.

* Nursery Rhymes as they are mostly anonymous.

* Quotes or lines from books, magazines, poems, letters if the author has been dead for more than 70 years. For example you could use a quote from a Shakespeare sonnet or Jane Austen's *Pride and Prejudice* as long as it is spoken by you.

If you are tempted to use any of the above, ask yourself why you want to use someone else's work? You can have just as good, if not better, effect by using your own words and materials in a story.

Issues to be aware of:

Do you intend to describe sensitive issues regarding another person or group of people which may involve matters of violence, abuse, sexuality, unhappy family background, marital problems, privacy, fairness, etc which might cause hurt to them or anyone else now or in the future?

Do you think your story might:

* Be libellous, for instance, contain an untruthful statement about someone that injures that person's reputation?

* Affect the safety of other people, especially children and young people?

* Be so one sided in opinion that it may be considered to lack balance in that the other person does not have the right to reply?

If the answer is yes to one or more of these, in the interest of fairness, some organisations may be reluctant to publish your story. Putting into practice the above guidelines should lead to a rewarding experience.

Good luck!

[Any List for Digital Storytellers](#)

'Use your own stuff' is one of the digital storyteller's mantras. This handy list of things to look out for may stop trouble down the line when you're assessing your digital story.

Any List for Digital Storytellers by Gareth Morlais

Here's a crib sheet of some of the compliance points that you may find useful when making a story or when choosing digital stories for submission to the BBC. I've called it the Any List. It isn't a full list of everything to consider when publishing an on-demand video clip on the internet. Please take extra care if you answer 'yes' to any of these questions.

- * Any photos or clips of 'other people's children' which you don't have signed consent for?
- * Any sensitive issue involving a third party in relation to violence, abuse, sexuality, unhappy family background, marital problems, privacy, fairness etc. which might cause hurt to them or to anyone else now or in the future?
- * Any commercial music?
- * Any non-commercial music by family or friends for which you don't have signed permission to include?
- * Any photos by anyone other than you, your family or friends?
- * Any scans or images from newspaper or magazine articles, CD or book covers, internet, works of art, etc.?
- * Any grabs or clips of any video other than your family home videos?
- * Any scans of maps?
- * Any quotes, poems or lines of text written by other people outside your own family?
- * Anything libellous?
- * Any company brands named or shown?

Finally ... has the impact of your story on the safety of other people, especially children and young people, been considered?

Equipment checklist

Here's a checklist of some of the equipment you'll use to help people make a digital story.

18 things a digital storyteller needs by Gareth Morlais

1. Computers - you may be able to use existing equipment at a local community centre, school or cybercafe. If you need to buy new equipment, you need to decide between Apple and PC. Laptops are easier to transport and need fewer mains points than tower units. They've also got their own power-cut protector built in (battery). How many do you need? Well, as many as you'll have people making stories at one time plus at least two designated and set up for the trainer and audio editor.
2. Software. E.g. iMovie or Premiere for video editing, Photoshop Elements for image editing, Audacity for audio editing
3. Image scanner. A slimline one which can be powered from the USB lead, not by being plugged into the mains
4. Printer. Having a bluetooth-enabled one saves cabling
5. Digital cameras with fast, large memory cards and a good solid tripod
6. Voice recording set-up. Nowadays we normally use portable flash-card audio recorders. Examples include Zoom H2, M-Audio Microtrack and Edirol E-09. You can also use a good-quality microphone via a USB audio interface by a company like Edirol, M-Audio or MOTU to capture audio. If you do this, you'll need a microphone stand, cables, windshield, clip and a script stand.
7. Portable powered speakers
8. DV camera for archiving stories. MiniDV tape, not disk or flashcard unless you're confident you can deal with compression and keyframe issues. The camera needs to have DV-in enabled.
9. Other appropriate capturing/authoring devices as required for workshops (e.g. mobile phones, disposable cameras, webcams, etc.)
10. Data projector and portable screen

11. Tape, disk, card and storage stock
12. Portable storage - external hard drives and data sticks, external USB floppy drive and card reader
13. Cables - USB and firewire cables and mains extensions/splitters
14. Gaffer tape, rubber mats, cable ties and other sundry items
15. Flight cases
16. Trolley
17. Access to transport suitable for carrying equipment will be needed by trainer
18. Other equipment, as advised by trainer and people locally

This information isn't exhaustive. It's just an aide memoir or a draft shopping list of things that may be needed to set up or run a digital storytelling or video production workshop project.

If you're submitting a funding bid, don't forget to set aside some money for the software too

Ten things to show someone who has never used a computer before

Reassurance is the key; we're using the computer as a storytelling tool here.

A computer crash course suggested by Gareth Morlais

When you're facilitating a digital story or video workshop or session, you may work with people who've never used a computer before. Here's a checklist of ten of the first things you need to let people know about if they're unfamiliar with computers:

1. How to switch your computer on and off.
2. How to sit comfortably; tilt the screen to optimise the quality of the picture you see on it; take screen breaks for eyes and posture; be aware of trip hazards like cables.
3. How to use a mouse; it can be re-configured and moved if you're left handed. (Try to remember how it felt the first time you used one).
4. Discuss key differences between PC, Mac and Linux if applicable.
5. How to move a folder on your desktop.
6. How to re-name a folder using only the characters a-z, 0-9, _, - and using no spaces or other characters.
7. How to open and close a folder.
8. How to re-locate an opened folder window.
9. How to re-size an opened folder window.
10. How to minimise or hide everything so you can see your desktop.

As digital storyteller Huw Davies often tells novices: "What you need to be able to do is: open a file, do what you want to it, then save it somewhere where you'll be able to find it later."

Reassuring people is a good approach to take. After all, they're only using the computer as a tool to help them tell their story.

[Taking Digital Photos](#)

Here's how to get the best possible digital photos to put in your digital story or video.

Taking Digital Photos by Carwyn Evans.

Digital stories in the main are created from our own personal archives; from those cherished photos kept carefully in albums, biscuit tins and drawers. This is the "invisible nation" which is made visible by the Digital Storytelling process and which forms the conceptual heart of Digital Storytelling. Using a flatbed scanner, these photographs are digitised and prepared to use in your Digital Story.

However, sometimes an image or a set of images you want to include aren't available in print or digital form, such as a prized swimming trophy or Aunt Betty doing an Irish jig in the parlour, and so you need to take new photographs. An easy and efficient way of achieving this is to take new shots on a digital camera.

A digital camera is an electronic device used to capture and store photographs digitally which are recorded on a memory card in the camera. Many digital cameras connect directly to a computer to transfer data. The most widely used method is USB and many people use an external card reader to transfer data from the memory card itself to their computer.

Remember, it's people who take good pictures, not cameras.

No matter how great your digital camera is, it cannot guarantee good pictures. Here are some hints and tips on taking good pictures using your digital camera.

Things to think about when taking digital photographs

*** Camera settings:**

Digital cameras allow you to take pictures at different quality settings - the higher the setting, the better the photo quality. Higher settings use more memory than lower settings. For taking pictures to include in your Digital Story, set the file size to at least 3MB. When you come to editing your pictures, you'll notice that the image size reduces to around 1.5MB each.

*** Composition:**

Anyone can point a digital camera at a subject and get a good quality photograph. The camera - provided it's set to automatic focus - will almost certainly ensure that the photo will be sharp and exposed correctly. However, the one thing the camera can't do for you is compose the shot.

Composition is important because it helps set the mood for the shot. Frame it, so your subject fills most of the picture area. The closer you get to the subject, the better. There's no need for unnecessary background detail. This is especially important if you publish your Digital Story online because frame size of the web version will be small.

Think creatively when composing your picture in the viewfinder. Instead of shooting at eye level, try shooting overhead, waist-level or ground-level. When photographing children or animals, get down to their level for best results.

*** Focus:**

Auto-focus is great, but it isn't perfect. Most digital cameras tend to simply focus on what's in the centre of the picture. If your main subject is not centre, point your camera at the subject, half-press the shutter button to focus and then re-compose

before pressing the shutter button fully. This will ensure that the main subject is perfectly sharp.

Be aware of your camera's limitations when taking close-up photos. A better way to get very close is to use the "macro mode" if your camera has this.

*** Zoom:**

The advice here is don't.... unless you really have to, if you can't get close to the subject. But if you can get in close, then do so, to ensure that the quality of your image is the very best it can be. If you have to use the zoom, then use only optical zoom for best results. Zooming in also increases camera shake, so it's very important that the camera is kept really steady. When taking portrait pictures, don't get too close when the lens is wide as this will distort your sitter's face. It's always better to stand away from the sitter a little and use some zoom.

*** Exposure:**

Digital cameras use a light-sensitive chip rather than film to capture an image. The camera is designed to let light through a hole (aperture) on to the chip for a limited amount of time (exposure). Digital cameras use "auto exposure" to take care of exposing the picture for you.

Even with a fully automatic camera, you can modify the exposure. Point the camera at the object you want correctly exposed and half-press the shutter button. Move the camera to compose your shot, and then squeeze the button fully to take the picture.

*** Flash:**

Natural daylight is the best light to take digital photographs as flash can create harsh shadows around the subject you're photographing. This is also known as "burn out". However, you may use fill flash to help lighten up a subject which is in shadow.

A general rule of thumb is to remember that poor lighting conditions result in poor pictures, so use as much natural light - not bright light mind - on the subject you're photographing.

*** Photographing small objects:**

Small objects are best photographed against a plain background. For maximum visibility and impact, photograph light objects against a dark background and vice versa.

*** Tripod:**

Use a tripod if you can, especially in low light level conditions. Short animations such as a sequence or an action of some sort, like a book opening, can benefit from using a tripod too. As the frame is fixed, you can concentrate on directing the action in front of the lens, without having to align each frame individually in an image editing package before including it in your Digital Story.

If you don't have a tripod, try leaning against a wall or resting the camera on something solid such as a table, to help steady your shot.

For more details on taking digital pictures, please seek out your digital camera manual.

Downloading pictures:

The camera should be connected to your computer using the USB port or the memory card itself can be connected using an external card reader. Once the camera is powered, either an existing image capture software loads up or the device appears as an external hard drive on the computer's desktop or in its list of available drives.

From here, you should be able to download the images to our computer, ready to edit with image manipulation software.

Consult your software/computer guide on notes to transfer these image files onto your machine.

And finally, be warned:

It's very important to think about who you're taking pictures of. Only shoot photographs of children that either are related or that you have permission to photograph. No matter how wonderful a shot of a child in the street eating an ice cream is, you won't be able to publish your Digital Story if you don't have the permission of the child and their parent or guardian. If you are going to take pictures of people, make sure that they are happy for you to do so and that they understand that their picture may end up in your film and be published on the web. It's better to ask now than wanting to use a photograph and not be able to use it.

Be careful:

Don't put yourself in danger. It may sound obvious, but once you start getting excited about taking pictures, all common sense can disappear! Don't walk backwards whilst shooting photographs. Don't try for that unusual shot on the side of the motorway! Think about your safety and the safety of others at all times!

Audio and Voice Recording for Digital Storytelling

Here's Simon Turner's guide to recording someone's voice for their digital story. Although it's geared towards facilitators, we hope that people recording their own voice will also find it useful.

Audio and Voice Recording for Digital Storytelling by Simon Turner

When planning your set-up, remember that the way you capture sound demands as much attention as the other elements of Digital Storytelling. The sound, in particular the voice, is the foundation of every film, and will dictate the pace, feel and structure of all visual and editing elements that are subsequently involved.

It is vital, therefore, to get the sound right at the outset with the minimum of fuss and at a good enough quality to work in a variety of mediums - internet, radio, television, CD ROM, etc.

What follows are some basic guidelines to help you achieve this, but because of the varying nature of different software systems and computer configurations that individual teams will use, you will not find any tutorials on specific systems. However, just about all of them use a similar set of protocols, and this section is based on that presumption.

Each team should appoint someone to oversee the audio software and accompanying kit, to familiarise themselves with that particular system, how it works and what works best. They can then disseminate this condensed knowledge amongst the other team members.

When choosing equipment and software, everyone will have differing views on what is best. A reasonable starting point is to ensure that you have a decent microphone; audio interface with a microphone pre-amp and USB or Firewire interface; audio editing software; and a computer. A portable hard drive to transfer data between the sound computer and the editing computers is extremely useful too.

Microphone

The microphone should be flexible enough to cope with recording other audio such as musical instruments and sound effects, as well as being good for voice work. Good does not, however, mean expensive - the one mentioned later, the Rhodes NT3, cost around £90.00 inc. VAT and is a very good microphone. There are plenty more similar mics out there at competitive prices, so it pays to have a look around. Avoid very sensitive microphones as these will pick up absolutely everything and should only be used in sound-proofed areas. You don't need a microphone that has its own separate power supply. A cardioid polarity (polarity is the way in which a microphone 'hears' sound) is suitable for most eventualities, and getting some shielded cable for it is not a bad idea either.

Capturing Audio

As far as the audio interface and software is concerned, there are lots to choose from. Most of the interfaces come with their own audio software, so you will need to check these out to find which one suits your needs and capabilities the best. Also, if you want to use a particular piece of software it pays to check that it works with the interface box you use, and vice-versa. They are not always compatible, even if they say they are. Try to make sure, if you can, that the software allows you to edit more than one track at a time as this can be very useful, and do check that it will allow you to record/export your sound files at the correct bit/sample rates (16 bit 48k is broadcast standard).

You can download most of these software systems as demos so do try before you buy.

Computer

When it comes to computer hardware, people tend to fall into two main areas - PC or Macintosh - with very little common ground between them. The truth of the matter is that both systems are perfectly useable and it is not an impossible learning curve to move from one system to another if you need to.

It is worth noting that, on the whole, Macs do tend to be more stable when it comes to media production and are geared up to work 'straight out of the box' with the minimum of fuss.

Whatever system you decide on, make sure that there are no compatibility issues between hardware and software, and get a reasonable amount of RAM put into the machine (2Gb or more is ideal).

Above all, make sure you test-drive the system thoroughly before taking it 'on the road'. Any glitches or issues should be dealt with and solved before any workshops are considered, and whoever is covering the sound should be familiar with every aspect of the equipment and system. More often than not you may get warning messages that seem far worse than they actually are, or you may be asked to configure a setting that is unfamiliar but crucial. All these things should have been gone through and dealt with, and a note made so that if it happens again you will know what to do.

Try to make the computer crash if you can, and find out why and how to solve it. All computers crash without exception, and the audio specialist should have a comprehensive enough knowledge of the hardware and software to know why it happens, how to re-boot it, and wherever possible, how to prevent it from doing it again.

The Recording Sequence

1. The Story Circle

Listening to a story is always better when the narrator is telling it from experience. There is a vast difference between someone simply reading something out, and actually telling it with all the attached personal and emotional aspects from their own perspective. This is true for all types of stories, whether comical, sad, strange or droll. This is why Digital Stories can have such an impact on the audience, because they are real stories told by real people.

It is the true voice of the storyteller, not an actor, exposing the genuine feelings and personal reactions involved that gives us a sense of inclusion and emotive insight into a unique event. Getting this from people who, on the whole, are very nervous can be an interesting challenge. Indeed, the first words that someone usually utters when coming to record their voiceover is "I've been dreading this". Why should this be the case? More often than not it is because they assume that they are expected to 'perform', to be able to offer us their tale in the form of a 'professional' voice-over, or they feel that their voice is simply not good enough when compared to those they

have heard on radio and television. Of course this is not true, so we must ensure that they understand that their real voice is what we are after, and to be calm enough to ensure that this comes across. So, what can we do to get people to relax as much as possible, to focus and reveal their true voice, and to get the narration done within a reasonable timescale?

The first time that people will come into contact with the notion of actually recording their voice is during the Story Circle, where they are introduced to the additional members of BBC staff and the key tasks they will be performing. It's during this introduction that the audio technician can make an important announcement - "we do not expect any of you to suddenly adopt a Radio 4 vocal style. We are looking to record your story narrated in your own voice". They should also point out that the narration doesn't have to be done in one continuous take, and that storytellers should lose the notion of this being treated as a 'live' event. Of course, doing it in one take can be very useful, but it is not a prerequisite under any circumstances and should not be seen or indeed promoted as a challenge.

Explain what happens during the recording process, how you can keep one bit and re-do another (dropping-in) and how you can insert or close up gaps and cut out errors. Try to answer any questions that may be causing them anxiety but be mindful that you can explain things a lot more easily when they come to do their voice-overs. Above all, put everyone at their ease and make sure that they are aware that it is a reasonably easy process. It's surprising how many people will have been quietly worrying about these factors, and this will help to put them at their ease in the build-up to them actually recording their stories in the audio area.

2. Music and Sound Effects

Before dealing with the voice, it's important to raise the issue of music and sound effects. During the Story Circle, after each story is read out, music and sound can be brought into the equation and this is the point when you can find out what they want for their film, and any suggestions you have can be brought up, discussed within the group, and noted for later.

It is useful to do this in the Story Circle, as other participants will be inspired to think more about sound and whether or not they need any for their films, and will be made aware of the potential advantages and problems associated with this aspect of their films.

It's always best to encourage them to use music that either they or a friend have created: even the simplest thing can be effective - whistling, humming, singing a pertinent song i.e. a school hymn. Sometimes they will have brought in CDs or tapes of favourite music they want to use. You will have to check copyright on every piece of pre-recorded music that you use without exception. If you do not check, you will be legally obliged to pay a fee and in some cases may even be prosecuted. Also, just because it is a favourite piece of music does not mean it is right. Music that reminds one person of a happy/sad/important time in their life can mean something very different to others, and this can alter a story's meaning, sometimes very detrimentally. Also, does it match the story's context, and will it be interruptive when placed under the narration?

Another good technique is to see if they have any connected audio material that they have brought. One such story was made by a reporter who was present at the scene of a bombing. At that time, she had made recordings of the immediate aftermath. We underscored her narration two thirds of the way through with the sounds of people caught in an awful moment, simply increasing to a crescendo and ending the film with a man screaming, "These are my people". Finding effective punctuation points in music and sound is as important as getting a good voice-over, and can add great depth to a story as long as it is never given greater emphasis than the narration.

More often than not music and sound is wanted, but not thought about. We can discuss, suggest and facilitate where necessary, and if the team is in a position to do so, even create original music if required. Bear in mind, however, that music/sound should only be used if it serves a useful purpose. If in any doubt as to whether it works or not, or is needed, always leave it out. The voice is the most important element of audio, and anything that dilutes its effectiveness or interrupts it will only serve to weaken the story.

The important things to remember with this area are:

The soundtrack/sound FX should not fight with the voice

Well-known pre-recorded music will have strong connotations that will very likely distract from the story and add unintentional meanings

Its always better to get them to provide music created either by themselves or a friend - whistling, humming, singing, playing an instrument (within their level of ability - very often a couple of chords can be just as meaningful as a well played, complicated piece) are all very potent in the context of the stories.

If they want to record something at home or elsewhere to use in their film, discuss the best way of achieving a good result. Explain about levels, mic positioning etc. Also, if they are using your kit, be aware that accidents happen, and ultimately it is your responsibility if you lend out equipment to participants without supervision.

Where possible, go with them to help this process, or get them to bring the instrument/sound source/musician into the workshop and record it there. Please be aware that going off-site should always follow health and safety criteria, and there should always be at least three people in the group. The workshop leader must be made aware when participants and staff go off-site, and must be informed as to where they are going, what they intend to do, and how to contact them if required.

Always discuss everything you are doing with the participant. This is their story, and they must be made to feel that they have involvement with the entire process.

Any changes made or problems raised concerning their soundtrack, even subtle ones, should always be facilitated either with them, or explained clearly to them. This includes things like volume changes etc.

Sometimes the inclusion of music and sounds can dilute the story - it is as much about when to leave it out, as it is to add it.

The simpler the additional audio, the stronger the voice will remain.

This is not about personal taste - does their suggestion not work in your mind because you don't like that particular piece of music or sound?

What audio artefacts or simple skills (i.e. whistling) do they have already that could be used to embellish their story?

3. The Voice

Narration traditionally falls into two distinct areas: informative, which offers extra dimensions to what we are seeing, and explanatory, which contextualizes what we are seeing on screen and why.

The extra levels to narrative include the emotional tones of the persons' voice. Does their story sadden them? Are they amazed by it? Do they find it funny? Whatever the underlying feeling, it is this that we are trying to bring out in the most honest way.

There are some technical points to cover before going any further. The area designated for recording can range from a really good radio studio to a toilet, and as such you have to be ready to accommodate all sorts of acoustic situations. Not only that, but of course the voices themselves differ wildly in timbre, volume and sibilance.

To get a good uniform feel to all the voices both in level and overall tone, you can use an external unit to compress, limit and de-ess (remove sibilance from) the voice before it reaches the computer. This not only helps with an overall level balance at source, it also allows us to "tune" the mic to the room, add a little presence if needed, and generally tweak the sound till we are happy with it. These facilities are also usually available as part of the audio software packages - the rule of thumb if using either is to not overdo it, and to apply these processes subtly. If you don't have these facilities, then a pop shield can often help variations in levels. Indeed, you should always use one anyway to get rid of plosives - consonants that cause the 'eardrum' of the microphone to overload and cause a 'popping' effect. A good rule to remember is to get the microphone reasonably close to the sound source, and to record at a strong enough level. This will ensure that you will record more of the original sound (in this case the voice) and be able to play it back without having to turn it up, consequently increasing the level of background noise.

You will only really get to know your kit and what works best by trying it out. The microphone we use is a Rhodes NT3. This has a cardioid polarity (meaning it has a heart shaped response, or way of hearing), and is a condenser microphone (which means it has to receive power from either a battery or phantom powering from the audio interface, mixer etc.) It is inexpensive and good for pretty much everything, but there are many other similar products to choose from that do an equally good job. Just remember that you don't have to spend a fortune to get a good microphone, but you can spend a lot on something that is not suitable and will cause more problems than it solves. In-built camera microphones should not be used, as they rarely give good results, and radio or clip mics (if available) are usually used only in circumstances such as outside location recording etc. but can be used if that's all there is.

Practice and experiment and make notes on what works best before taking it out on the road/doing your first workshop etc. Also, be aware that you will never achieve absolute uniformity between voices, so just get the best sound you can from each. Please remember that a badly made recording is very difficult to fix. There is no magic formula for fixing poor sound, so get the best recording you can from the start.

4. The Recording

A key issue is the script and certain words or phrases. What can look good on paper in the main room can sometimes sound affected and false when read out in the audio area. If this is the case, ask them how they would phrase that sentence what word would they use in normal conversation. This will lead to a more naturalistic sounding narration and will be easier to read out loud.

When the participant comes in they will no doubt, as highlighted earlier, be nervous. From the moment they come in, it's important to make them feel comfortable. Tell them (and ensure) that there will be two of you with them in the room. As per recording on location, it is vital that two members of the team are present in the sound room, and providing both team members are sensitive to the situation, this should not cause a problem.

Tell them what your role in the process is, and what you are actually doing. This makes you part of the voiceover, and takes the focus away from them and turns it into something you will be doing together.

It's always polite to ask them if they would prefer to sit or stand at the start, and if after a while things aren't working, get them to do the opposite. Also check their body language. If they are gripping the seat, have their arms folded tightly across their chest, aren't breathing normally etc, point it out. Relax them, do some breathing exercises, get them to walk around the room, get them some water, tell a joke, whatever it takes. Don't get impatient, but don't be afraid to push them if it's needed.

Do the first take as a "checker". Tell them that you will record it but it is purely for getting the levels and settings right. This is only partially true, as it also helps "break the ice" of telling their story out loud in the sound room.

The second take should be done without any advice from you. Just tell them to relax, and to tell the story in their own time. They will be more than likely aware of the time limit on their film, and will be worrying that they are going to go over this. Tell them that it doesn't matter - the gaps can be closed up later - and that if they fluff a line to just go back to the start of the previous sentence and, in their own time, start again.

Remind them what is needed and don't ever be negative. Suggest improvements in a positive way, and discuss with them the meaning and emotional importance of what they are saying and how best to get it across. When you feel you are getting somewhere, it's often a good idea to play them the take and to discuss the areas you feel could be even better. Having an example is far better than just telling them, and although you shouldn't do it for every take, once in a while is useful. Remember that most people dislike the sound of their own voice when it is played back to them. Be supportive and encouraging as well as answering any concerns that they may have.

Record every take. Only delete the takes you don't want when you are sure you have what you need.

Ask them how they think it's going - comment honestly on their responses and talk to them about their experience so far. This can help them relax and feel less pressured. The second team member should feel able to add input, but remember that too much instruction all at once from two people can be overwhelming. These things can take a little while so one voice at a time and any advice given should have a reason given to accompany it.

Always stop if they are getting tired. It's far better to come back to it later than to repeat the same flat narration. Judge when they have had enough and judge when you think you have got the best you can from them. Some people just don't have very animated voices, and no technique in the world is going to prise it from them.

5. Effects

As far as technical requirements are concerned, the usual broadcast standard applies if this is going onto television - 16 bit, 48k. However, the usual -6dB rating can be ignored, as most video editing software including Premiere is a bit fiddly to work with if you have lower signal levels.

It's not a bad idea to keep to these standards as a general working practice, and convert the audio for other uses such as the internet etc. afterwards.

Once the voice-overs are all captured, it is important to check each one over loud speakers. You will hear any glitches or defects and can fix them there and then. You can also do a level comparison, and normalize and then alter the gain of each voiceover to get them all sounding reasonably similar. Normalising is making sure the loudest part of the soundtrack does not exceed a preset limit - again, usually part of the audio software package.

Remember that although everyone's voice is different; you are trying to get each voice level sounding as natural as possible. If someone's voice is quiet, then trying to make it loud will sound unnatural. A little bit of volume will help, and providing you recorded it at a good level at the start you should have no problems.

Normalizing the voiceover to -1dB seems to work very well, and provides a good visual waveform in the time line. The levels, providing they remain no higher than -1dB, can be uniformly lowered/raised as needs be in post-production after the workshop.

As far as EQ is concerned, once the voice is recorded it should be left alone. The tonal quality of the voice should have been captured at source the way you want it to sound in the film. Mucking about with frequencies after the event, unless you know what you are doing and why you are doing it, will just cause time-consuming problems.

Audio effects, such as reverb, delay etc, can be great fun and can sometimes enhance a soundtrack, but if you use a 'long' reverb for example (one that has a long decay),

then this can sound wrong. Any effect should be used sparingly and, just like music, if in doubt leave it out.

If there are unavoidable loud background sounds on the voiceover, and you need to make cuts between sections of dialogue, a good idea is to put a volume fade at either end of each section. In other words, rather than cutting the sound dead between each section, allow the voice to finish speaking, and then a quick and subtle volume fade-out to silence can help considerably. The opposite applies to the beginning of a section - a quick fade up from silence before the voice starts speaking can smooth out most problems of traffic, distant crowd noises etc. If you have to do this, try and make any edits or changes to the soundtrack as subtle as possible. Bear in mind also, that any small glitches such as clicks, hisses and so on that sound quiet to you in the audio room, will be increased to very noticeable levels in the final showing of the films. These issues must be solved before transferring the voiceovers onto the participants' machines. The same applies for any music or other audio that is to be used.

6. Final Points

One thing to mention is that any extras such as music should always be put on to the participants' machines as a separate sound file. If you do the voice and music/SFX as a finished mix this does not allow for individual editing of the various audio elements, and again can be the cause of problems.

Once the voiceovers and music are in the participant's machines, it's important that you keep coming back from time to time, and checking what they have done. Again, if they have created an odd edit or it sounds wrong, discuss, suggest and include them in the process of amendment. Explain why you think it would be better a different way.

Always check the films before they are dubbed onto tape for the final showing. Some people can't help "tweaking" their finished films.

Finally, remember that once these films are made, they cannot be 'un-made'. Both the experience of the workshop as well as the final film is what will matter most to the participant, and the voiceover should be something that they feel proud of as well as conveying the correct meaning to the audience

How to Edit Your Digital Story

Ready to begin editing? Once you've gathered together all your ingredients you are!

How to Edit Your Digital Story by Huw Davies

First of all, gather together all your rich media assets: voice recording, still images, video footage etc.

Software

You'll need to decide on editing software. There are many packages available and although all are capable of producing a broadcast quality film, some get you there by wading uphill through treacle. As with most things, you get what you pay for up to a point because, as I've just said, they are all capable of creating a top quality end product. Whatever you decide on, the principles of editing are the same.

Getting Started

On launching the software you will be asked to name a new project and select settings.

* DV Pal standard 48kHz or DV Pal 16:9 widescreen is what you're looking for.

* Click OK and it will probably tell you it cannot find the external AV firewire device. That's a video camera or an audio device but, unless you're ready to capture some video or audio right now, just press Continue.

If you don't need to capture from the camera, you can skip the following and move straight to the next point.

If you do have video to capture, now's the time to do it, and here's how.

Quit out of the software, connect your video camera via its firewire or USB2 cable and re-launch the software. And now it will recognize the device.

If your camera records directly to a card as opposed to mini DV or digital Hi8 tape then it's a simple matter of drag-and-drop the files into a folder on your desktop.

OK back to video tape. Choose DV Pal standard 48kHz or DV Pal 16:9 widescreen as a suitable setting for your software. Go up to File and down to Capture; or Video Capture; or Import; depending on which software you're using. Some software will automatically show you your footage in the monitor; others will launch a separate capture monitor; either way there will be a Capture or Record button and a settings editor to allow you to drop the captured elements somewhere you'll be able to find them again.

For a more in-depth explanation of video capture you'll have to refer to the online guide or accompanying handbook of the software you've chosen to work with.

And if it still doesn't work: quit out of the software, unplug the camera, plug it back in, switch it on and re-launch. That usually does it.

*Right, back to editing. As soon as it's launched you'll be confronted with three main windows probably surrounded by numerous, overly colourful and rather bewildering little buttons, symbol panels and numbers. Forget about all of them for a minute. Take a deep breath and calm yourself. OK. It's not as bad as it looks. Top left or top right there'll be a monitor (like a small TV screen) and under it, controls just like on your CD or DVD player.

* Next to it will be the project bin. It will be empty and so may seem meaningless. This is where you will drop your film assets. If you're reading this at a machine with editing software on board why not do this now so you can see what it does to them.

Importing your assets into the project:

* Go up to File on the menu bar at the top of the screen and then down to Import.

* Navigate to the desktop of your machine where you will have placed all of your assets neatly into a folder labelled Film_Project.

* Inside this folder you will have placed subfolders labelled: Voice, Video, Stills, etc.

* If you haven't done this yet go and do it now, it'll make life much easier later on.

It doesn't matter what size your pictures, video clips or audio files are at this stage the software will convert it all for you and place clips on a black background. Just try to ensure your video capture and still photography is the highest quality your device can manage; although I wouldn't bother your head about HD (High Definition) right now.

Ok, you can now import the assets you need to build your film and once the machine has finished crunching all this info and is able to show you what you've imported, you're ready to find out what the bottom half of the screen does.

The Timeline

This is the beautiful bit.

* Grab a voice recording, then drag and drop it into an audio timeline in the timeline window.

* Now grab a still image or piece of video and drop that into the video timeline above the audio.

* Be aware that video clips will bring in their own audio automatically but, if the audio isn't needed, there is one of those many buttons situated to the left of the track

which will have an audio symbol - a speaker or such like - and if you click on that it will turn the audio track off.

- * Click Play on the monitor controls and a play head will glide from left to right playing what's in the timeline.
- * Click and drag the play head and you can scrub back and forth, purely for fun or to accurately position it at a point where your next clip should come in. By hovering your mouse pointer over the end of a clip on the timeline, a bracket will appear that allows you to shorten or lengthen the clip using your mouse.
- * Click to highlight, then drag the clip to position it at just the right moment.
- * Click on the clip and press the Backspace button on your keyboard to delete it; up to File and down to Undo, to do just that if you get into a muddle. Working on the clips in the timeline doesn't affect their original form either in the project bin or in your folder on the desktop so, as long as you remember to save a copy of your work into that desktop folder at regular intervals, you can work away to your heart's content by trying the "I wonder what this button does" method of learning, and resorting to the Undo control each time you feel you've blown it, but all safe in the knowledge that your original assets remain uncorrupted on the desktop.

The ability to drop in and work on a clip where you like in the timeline is called "non-linear video editing". In its most basic form, there you have it. There's a lot more to learn but there's no need to bore you with it all right now. You've enough here to get you started. Just play around with it and you'll soon pick it up. There's a lot of jargon talked about computers but they're just a tool you have to learn to use. Just like a hammer but not as durable.

Get that Story Out!

To get your finished film out of the software and converted into a compressed useable format:

- * Go up to File and down to Export/Share. Now choose from Web or Full Quality Export and the software will crunch out a compressed file ready for sending over the internet or burning to DVD.
- * There are lots of numbers involved in the exporting of final projects but the most relevant are the sizes of the export. Generally 320x240 pixels for web use (YouTube size) or 720x576 for broadcast (TV size).
- * It's always worth exporting the larger of the two for your own archive so that you have a good quality copy of your film for future reference.

And Finally...

If you hover your mouse over any of the buttons, after three seconds a little tab will pop up telling you what it is. There are also help buttons in your menu bar that actually can be helpful and lots of online forums to answer some of the more

persistent problems. But the best way of learning is by making sure all your assets are in the right place and saved and then just exploring, safe in the knowledge that whatever strange mess you make after clicking some odd collection of buttons, you can always go up to File and down to Undo. Usually this function allows you to step back at least 50 steps. But if you can make 50 mistakes in a row without noticing perhaps it's time for a screen break.

And rest.

Sharing Digital Stories

So, the digital stories are finished. The next step is to get them out there so people can see them.

Sharing Digital Stories by Gareth Morlais

Some people decide to make a story about something so personal or sensitive that they'd rather not share it. That's fine of course. For many though, part of the joy of telling their story is in having it heard and seen.

Here are three ways to share...

1. Make sure everyone who makes a story burns a DVD to take home with them. As a souvenir, they could also also make a DVD containing all the stories made by everyone who attended that workshop.
2. It's great if every workshop finishes with a screening where every story made at that workshop is projected onto a huge screen in a darkened room full of the storytellers, their friends and families. This is a fantastic finale to the workshop.
3. Upload your stories onto the web: your own project website, video sharing sites like You Tube and don't forget to send a copy to BBC Wales too. Before publication, have another look at Lisa Jones' good practice section of this set of guides and check that the author and everyone identifiable in their story are happy for it to be on the web. Ask parents or guardians of children and young people too.

However many people you help to make a digital story, good luck, have fun and remember: it's fun to share.

