



Adrian Porter discusses
the educational
possibilities of
podcasting and offers
some hints and tips on
how to go about
creating podcasts with
your students.

“Hello and welcome to this podcast...” Cue the music! Do you need something to appeal to the iPod generation? Maybe a podcast project is for you. It will get you into your students’ ‘cool books’ and it involves planning, technical skills and evaluation – all key skills. Tune in now because there are a host of resources out there to help you both on the technical and creative front.

First, some background. A podcast is really a radio programme that’s stored as an MP3 file. The file can be imported into an iPod, put on a web page as an audio file or used in a podcast feed. It doesn’t take a genius to work out that the word, according to Wikipedia, is derived from the words iPod and broadcasting and was coined in 2004. Before that, to have a radio station required an aerial the size of the Eiffel Tower on your school roof, a control room that looked like NASA headquarters and a broadcasting licence from the Home Office. Now you can broadcast to the world through the Web – and no licence required.

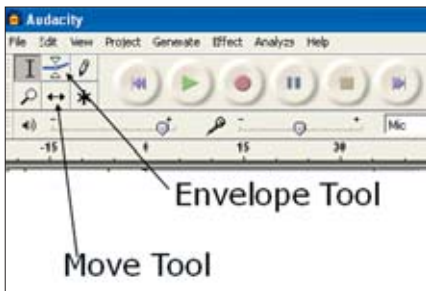
Thanks for listening...





For this project, we are going to use the free open source software called *Audacity*, although I will offer some alternatives later. Download it from the address given at the end of this article¹ and install it. The software looks quite complicated, but it is perfect for the job and actually quite straightforward to use.

I have made extensive use of a new BT education site² that has tutorials, worksheets and lesson plans. There is much useful advice from Nick Clarke, a Radio 4 celebratory. The video tutorials are so good that I used them to teach how to handle *Audacity*. They are short and use excellent examples.



Audacity – the free, open source sound editor

Microphones

Talk to an expert on microphones and they will convince you that nothing under £100 will do. However, for this project I have found that the £6 Logitech microphones from RM are just right. They are cheap but give a professional feel and they record the sound well without too much background noise. The USB Logitech microphone is also recommended. I use a dedicated microphone rather than the headset microphone, just because it gives a different feel to the idea of recording and they are better quality.

Microphones are great for classroom use, but if you want to record on a school trip then use a simple MP3 player that has record facilities. iPods can also be fitted with a recording attachment. A traditional tape recorder or mini-disk player can also be used, but you then have to use *Audacity* to record the input to a digital file. Just use the 'headphone out' connection into the microphone socket on the computer.

There is a small amount of setting up that is

worth doing first. Check the sound properties and make sure the levels are adjusted for the microphone. There are some adjustments to be made to *Audacity* before you get cracking, and Jake Ludington's MediaBlab site³ has a useful set-up routine.



The BT Internet Radio Kit for schools has excellent tutorials and advice.

First project

The first project should be to record a small opener, e.g. "Hi, my name's Joshua and welcome to InterActive FM 254", followed by a music jingle. The idea is to concentrate on trying out a short sequence and practising the basic skills: cutting and moving small clips around on the timeline; balancing the volumes; then mastering the clips into one and finally exporting it as an MP3 clip.

To get started, play some of the clips from WillowWeb⁴. This was created by students at an Elementary School in Omaha, Nebraska, USA, who researched the pioneers of the country and had to explain what life was like in colonial times. You can enjoy listening to segments about torture, geography, manners, and more!



"Hi, I'm Shelby and this is WillowWeb..."

After playing a few of these, your students should get the idea – but before they get carried away, they should do some testing first. Just record and playback, maybe adjust the sound levels again

and get used to how far from the microphone your mouth is. Delete the track and record another.

Each recording appears on a different track and it also plays all the tracks back as you record. This can be slightly annoying, so click the 'mute' button to silence the tracks while you record. The program creates large file sizes so, if you are working on a network, tell the students to keep saving as they continue in case they reach their file limit.

Editing

After the first recording, learn how to cut down the track to size. Select and delete the hesitations at the beginning and end, then bring in some music. It is best if the teacher has already organised some (copyright free) music clips in a folder

ready, as this saves the students spending a long time searching for files. There are some good sound effects in one of the links listed at the end of this article⁵. Jets flying past and thunder and lighting strikes can be handy for dramatic effect.

Use the 'Project ... Import sound' function to bring in the music to a new track, then use the Move tool to drag the clip to the right place. Sounds to accompany clipart can be recorded by *Audacity* if you set the input to 'Stereo mix' instead of microphone. It will then record whatever the computer is playing. But don't forget to switch it back again to microphone!

Balancing the sound is the next skill, and there is a demo on the BT site that is excellent for this. You will see how to use the Gain tool to change the volume of a whole track. The music just imported may be too loud against the voice recording, but the Gain tool can adjust the volume to balance the two sounds. However,

sometimes you want the music to fade in or fade out, and for this the Envelope tool can be used to shape the volume along the track. Look at the figure and the demonstration for this.

Finally, the tracks need to be mastered, which involves mixing them together to produce one track. Simply multi-select the tracks and use 'Project ... Quick mix'. You now have one track and this can be saved as a WAV file or MP3. When you

save as MP3, *Audacity* asks for a special file (LAME encoder) that you need to get from the *Audacity* website. You are then presented with the dialogue box shown below. Fill in the details as it is this information that will be shown on the player of your choice.



Put these details into the MP3 export so they appear on the player.

Project planning

Once the students have practised using the editing tools, they need to think about a project to undertake. There are three steps to a successful project:

- Pre-production – the planning stage
- Production – this is where the recording takes place
- Post-production – where the editing and mixing takes place

In the pre-production phase, the students should focus on planning their project. This could be an interview. Work in pairs, so one person can be the interviewer and the other the interviewee. Set a topic such as an interview about a recent event at school or about a book the students have read. Think about audience. There are some planning sheets on the BT site, but the questions shouldn't be too scripted, otherwise the interview will sound too stilted. Aim for a conversation but with notes ready about the questions to be asked. Open questions work better than just 'yes or no' type closed questions.

For the post-production phase, I suggest that they edit the interview down to just a minute. This may sound too short, but I think it is much better to have a short high-quality product than a longer rambling interview. If you feel really ambitious, you could devise a whole class project where each student is contributing to one final show, but don't give yourself the job of putting it all together!

Once the students have mastered the tracks and exported them as MP3s into a shared drive, they can listen to each other's work and compare.

Publishing

There are plenty of choices about what to do with the final products. You could put them on a

WillowWeb-style website, but think carefully about publishing material that everyone in the world can see. Follow standard guidelines for internet safety. You could make a simple web page and just hyperlink to the files to give a pleasing way of presenting the sound files via the school intranet. Alternatively, you could import them into *iTunes*⁶, which gives a pleasing way of selecting and playing the files. Once the files are in *iTunes*, you can export to an iPod. The BT site also has a link to a free DIY web creation tool, where you could publish your podcasts. It is by publishing on the Web that you give students an opportunity to make their voice heard and broadcast to a real audience.

The next stage would be to use an RSS feed so your audience can detect when you have published a new podcast. This is really beyond the scope of this article, so you may be interested to look at Gary Stager's site⁷, where he explains how to create an .xml file that can be used to publish the RSS feed. If this is all too complicated, then many blogging sites also allow you to publish the feed easily. You may like to try the blogger.com site⁸.

Further ideas

Once you are proficient with the technical aspects of podcasting, your students could get involved in all sorts of projects. Language lessons are the obvious area, e.g. interviews in French or Spanish made by your students. For trips abroad, try to record some real conversations or commentary that could be incorporated into a programme back home. In history, there could be some enactments of events with participants pretending to be a reporter of the time. In science, students could present a technological show explaining some of the science they are involved with.

Book reviews are an excellent source of material, whether they are novels or subject-specialist books.

Telling a story could be a good format, but remember: you may have to listen to the results, and you can't skim-read a podcast! I mark with a marking sheet that the student has prepared with their name and details of the project. I deduct marks if the project is over the time allocated.

Alternatives to Audacity

If you are using a Mac, then *Garageband* is the obvious alternative, as it comes as part of the iLife suite. This software has the advantage that it can be used to create and sequence music that you might use to accompany the spoken word. However, *Audacity* is also available for the Mac.

Another alternative to using *Audacity* is *Revelation Sight & Sound* from Logotron⁹. Use it to create radio programmes, slideshows, rostrum camera documentaries, and even high quality video feature films. The software comes with a wealth of resources, and many activities can be completed with access to an ordinary digital camera. It acts more like a traditional video editing suite, although simpler to use. There is a licence cost to pay for this, but the help and accompanying book of lesson plans make it easier to implement.

Finally

There is no doubt that students find podcasting an exciting area, and in my view it is better for the teacher than video. It is more difficult to have a video camera for every student, and there is something about video that makes the user forget what they are saying. They concentrate too much on what they look like. With podcasting, you can achieve focused results.

And one final piece of advice: Don't forget to sign off from your podcast properly "...so, please tune in next week, and thanks for listening!"

■ Adrian Porter, Head of ICT at Wycombe Abbey School.

Resources

1. Audacity
<http://audacity.sourceforge.net/>
2. BT Education (Internet Radio kit for schools)
www.bteducation.org/img/lib/dialogics/schoolradio/index.htm
3. Jake Luddington
www.jakeluddington.com/podcasting/20050222_recording_a_podcast.html
4. WillowWeb
www.apple.com/uk/education/solutions/podcasting/
5. Sound effects
www.therecordist.com/pages/downloads.html
6. Apple (iTunes)
www.apple.com/uk/education/solutions/podcasting/
7. Gary Stager
www.stager.org/podcasting/guide.html
8. Blogger
www.blogger.com
9. Logotron (Revelation Sight and Sound)
www.logo.com/cat/view/revelation-sight-sound.html