Podcasting guide for Windows

Podcasting involves creating an audio file for distribution via the internet. Podcasts are already being used by savvy universities for marketing and recruitment. Some universities use podcasts to providing expert commentaries on topical issues from researchers or staff who are renowned authorities on their subject. They can be used to share the latest outcome of a research project. The advantage of podcasting is the relative ease at which it is possible to create recordings and distribute them via the Internet.

Teaching a course with podcasting provides an additional way to share lecture content and promote student engagement. Podcasts can be made by simply recording a seminar/lecture or by creating them *de novo* as an additional learning resource.

Within the biosciences the wide range of teaching formats means that podcasts can be used in many ways; for example a fieldtrip can use podcasting to explain the environmental or biological principles involved in investigation and data collection. Students can listen to the podcasts during the fieldtrip and also before they visit or again later in any related activities. Podcasts could be used to explain key principles that are included within a course (or even to persuade prospective students onto a course). There are some more ideas at the end of this guide*.*

Part 1: Creating the Recording

Step 1: First of all you will need a headset with microphone to make and check the quality of recordings. Alternatively use a dedicated portable recording device such as a digital Dictaphone, recordable MP3 player, or PDA. You may already have some of this equipment but if not your Learning Development Unit probably has equipment they can loan. If not write a short teaching and learning proposal to cover set up costs and submit this to your head of department without delay.
NB: You may need to get permission to make recordings of teaching sessions and students*.*

Step 2: Read any instructions to use your chosen device. Importantly ensure that the audio is set to capture at sufficiently high quality and that you have enough file storage space on the device when you start. Audio quality can always be reduced later to make the podcast file size smaller but it is much harder to improve the quality of recordings at a later date. If you decide to use a laptop or PC and Sound Recorder as your default application the files will be several megabytes in size when saved in WAV format.

Step 3: During the recording you may need to add cues for the listening audience to follow the session. For example, if recording a lecture that uses PowerPoint slides make a point of stating what slide is being shown and include sufficient pauses, this will help the person listening to follow the whole activity.

Step 4: At the end of the session check the audio recording for clarity. You may wish to undertake some post production editing before making the recording available as a podcast. For example removing unwanted long pauses or background noises. The next section will explain how to do this.

Part 2: Creating the podcast

The next part of the process involves editing and converting the audio recording into the MP3 audio format. MP3 is the most popular and accessible audio format because of its combination of high audio quality and good file compression.

Look for hardware and software which saves or converts files into the MP3 format. Examples for the PocketPC and PDA include Resco Audio Recorder. Digital Dictaphones may be bundled with file conversion software on the installation disk. High end mobile phones also have in-built voice recorders. If you haven't any software then Audacity is a good choice and is free. Audacity can be downloaded from audacity.sourceforge.net/ together with the LAME MP3 encoder.

Using Audacity software to convert and edit audio recordings.

If you are using Audacity to record the session then before you begin check that the Preferences and Audio Quality is set to 44,100 Hz, which is CD quality. Later you will export the recording as MP3 format.
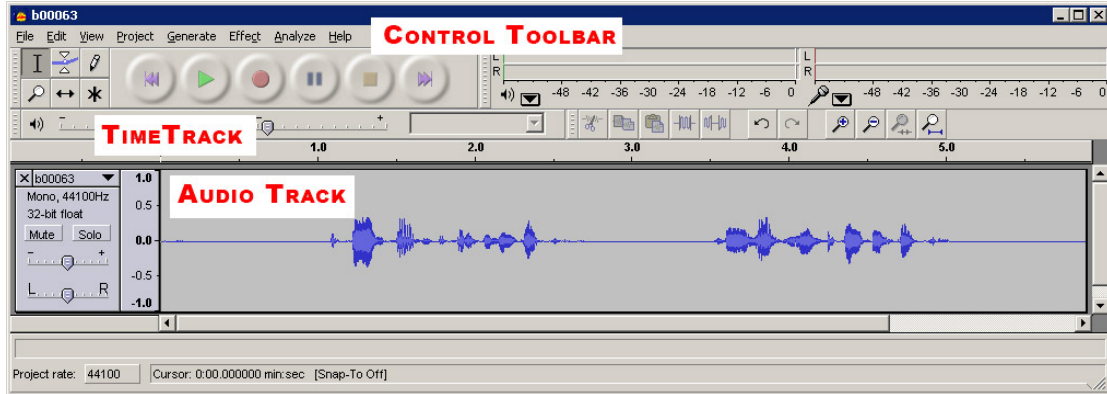
The Audacity interface allows you to record and edit audio. The audio appears as a waveform on the Audio Tracks. The time is shown above the Audio Track on the Time Track. You can use the time track to zoom in and out of the Audio Track.

Step 1: Listen to the recording and by looking at the waveform to find parts of the recording that may benefit from some quick editing. Use the toolbar to play, skip and stop the recording.
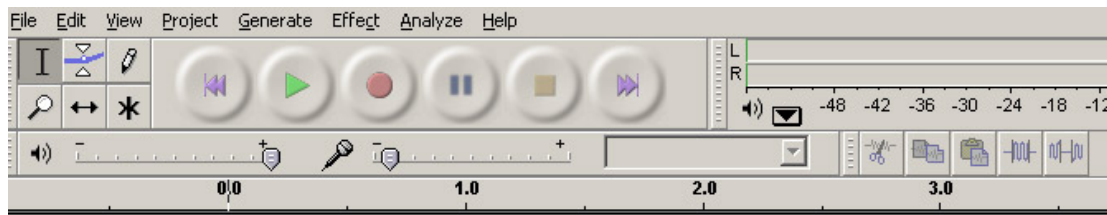
The Audacity toolbar is used to record and listen to the audio file. Settings for microphone and speakers are on the toolbar.

Step 2: Decide if any parts of the recording need editing. You may want to remove long pauses or cut a single recording into smaller subunits for the audience to listen to over several separate days. Use the Selection Tool to highlight a region on the waveform. This can be done by clicking the left mouse button, dragging the pointer and the clicking the left mouse button a second time. Next press the Delete key or Cut Button.

You can edit the recording by deleting sections of the waveform. A flat line represents silence.

The Trim Button performs the opposite action by removing all sound except the part highlighted. The silence button replaces the highlighted section with silence rather than shortening the recording.

Audacity Edit Toolbar

Step 3: You may wish to alter the clarity of the recording by using some of the Effects from the menu. One of these effects is Amplify and this can be used if the original recording is too quiet. Note that Amplify increases all sounds including any background noise.

Step 4: Once the editing is complete save the recording in audacity project file format .aup and also from the File menu select "Export As MP3". Saving as MP3 compresses the recording saving on disk space and is also the preferred audio format for distribution to portable devices, phones and music players.

Step 5: Check the MP3 recording quality is acceptable by listening to the recording on a portable music player.

Final Steps: Uploading the MP3 File

Step 6: Uploading the files. To make the recording available the files will need to be accessible to listeners. The most common access staff have to making material available via the Web is through the use of a Virtual Learning Environment. Upload a single file in the same way you would upload a PowerPoint or PDF file to a page within your online course.

Alternatively your institution may have a dedicated server for distributing audio. Speak to your IT support for advice on the best place to upload MP3 files within your institution. IT support may be able to give you the names of other staff who are already using podcasting to get further advice.

It can be argued that this is not strictly podcasting as the resource is not available through the use of a RSS feed on the Web. However what you have achieved is distribution to the intended audience and it will be relatively straightforward for students to download the files. The inclusion of RSS feeds within VLE is available but on some platforms only as a third party installation or 'Building Blocks'. As VLEs continue to improve in their functionality it is likely that all will support RSS. The VLE Moodle is already able to offer RSS.

RSS – for information about RSS cyber.law.harvard.edu/rss/rss.html

Creating the RSS is only necessary if you are wanting students to access the recordings through an RSS reader. Tools such as FeedforAll will make these files for you.

Step 7: Now the file is uploaded you need to tell students how to find the resource. This can be a link from within the VLE or sending a class email with a link to MP3 file. You might want to use Tracking options in the VLE to record how many times the file has been downloaded and create some form of evaluation questionnaire to determine how students rate this addition teaching resource.

Step 8: It all works and is a raving success. You are considered hip (temporarily) by the students. Go and tell your head of department!

Ideas for podcasting

Recording plenaries, lectures and seminars as they happen give a student the opportunity to listen and review teaching, maybe picking up points that they missed or would like to hear again. You may decide rather than record a teaching session you want make something entirely new to support your course. You could interview a keynote speaker, another member of the faculty or industrial link to bring a different perspective to a topic being taught.

Ask students to produce a podcast instead of a PowerPoint presentation as part of their coursework. Podcasts could be used for a variety of activities. In health courses students could practice skills necessary for effective communication with patients.

Why Audacity?

Audacity is an open source software tool which has a host of editing features. It is commonly recommended on podcasting sites and in magazines. Alternative commercial software (Windows only) is Adobe Audition which can be purchased under educational license or may already be part of your campus networked software. Speak to your Learning Development Unit for advice. Apple QuickTime Pro version offers a podcasting tool. See www.apple.com/quicktime/tutorials/podcasting_win.html

Note: The MP3 codec needs to be downloaded as well the audacity software. Follow the instructions on the audacity website to ensure you install the complete list of files.

Audacity tutorials: audacity.sourceforge.net/help/tutorials

More on RSS

RSS or really simple syndication is a way of making content accessible through the use of a newsreader. RSS is built into Internet Explorer 7, Outlook 2007 and iTunes. Free and commercial RSS readers for mobile phones, PDA and PCs are available. Programmes like iTunes and IE7 can find and link to updated content on a website automatically.