

# AUDIO PRODUCTION

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# AUDIOPRODUCTION

This guide covers audio production and distribution.

## Audio Production

Audio recording can be an effective tool in campaigning and advocacy. This guide examines the uses of audio, what makes effective campaigning content, and how to use audio strategically in your organising work. Creating an excellent audio piece is no longer the preserve of media experts. Today everybody can potentially make an audio piece, so long as you have some basic equipment and a little background knowledge. Using audio for campaigning and advocacy is a growing phenomenon, but it takes planning to make a piece innovative and effective.

This guide looks at how you can create an audio work that is powerful and useful to you and your audiences. There are many different kinds of audio pieces, ranging from in-studio discussions, talk shows and phone-ins to field recordings of events such as rallies. Other popular formats are documentaries or features that combine various recordings – such as interviews, background sounds, music and narration.

All these types of programming can now also be distributed as podcasts, that is as downloadable audio feeds that listeners can subscribe to online. These segments can be used for many different types of campaigning or education. It is a great way to reach a mass audience – people who listen to radio stations and people who listen to audio online.

When someone listens to your programme, they are engaging with the content in an intimate way – just you and them. Radio/audio has the power to be both private and public; intimate and broad-based. It can reach large numbers of people who may not otherwise be exposed to your message and provide them with compelling and personal details.

## Distribution

This guide will provide practical tips on how to get your audio published on the Internet, and how to use existing distribution channels to reach the audiences that will appreciate it most. Examples are also provided of nonprofit organisations who incorporate this technology into their advocacy work.

The human voice is powerful. It can be spontaneous, intimate and engaging. It can make people who are separated by thousands of miles feel as if they were in the same room. It can express mere content, but

also context, feeling, passion. Until recently, though, voice was usually restricted to local, personal reach. Only a few with access to expensive media tools were able to hear and distribute audio to a global audience.

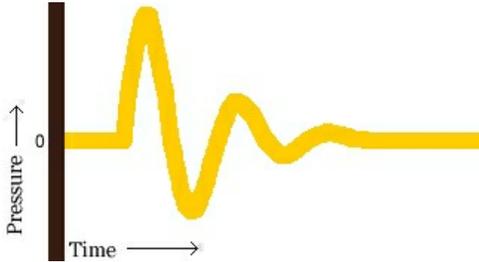
Today technology makes it easier not only to record and edit audio, but also distribute it throughout the world using new technologies like blogs and podcasts.

### BACKGROUND INFO

1. What is sound?
2. Audio Glossary
3. Hardware resources

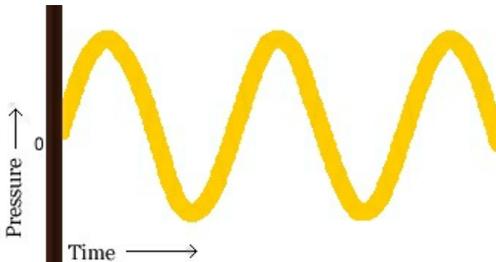
# 1. WHAT IS SOUND?

Sounds are waves of air. We hear sounds because our ears are sensitive to these waves. One of the easiest types of sound waves to understand is a short, sudden sound like a hand clap. When hands clap together, they create a *pressurised* wave of air which moves at about 340 meters per second ( "the speed of sound" ). When this wave reaches ones ear, it pushes on the eardrum slightly, causing it to vibrate and the individual hears the clap.



A hand clap is a short event that causes a single wave of air that quickly dies out. The image above shows the shape of the wave ("waveform") for a typical hand clap.

Other sound waves are longer events. A ringing bell serves as a good example of this. When a bell rings, after the initial strike, the sound comes from the ongoing "ringing" of the bell. While the bell rings, it vibrates at a particular speed ("frequency") and this causes the nearby air to vibrate at the same speed. This causes waves of air to travel from the bell, again, at the speed of sound. Pressure waves from continuous vibration look more like this:

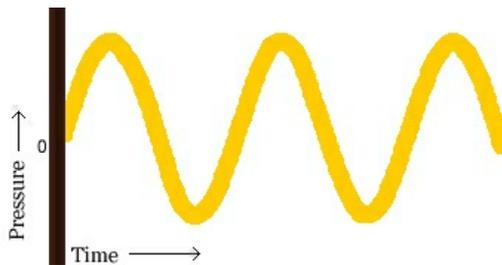


Both of these types of waves are called **sound waves** or **acoustic waves**.

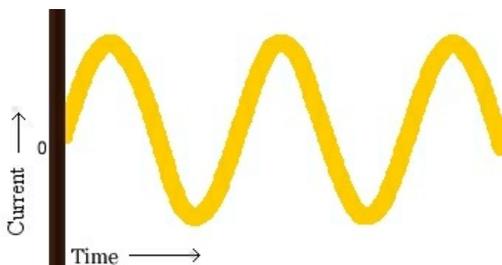
## DIGITAL RECORDING AND PLAYBACK

A **microphone** consists of a small membrane which vibrates when it meets these acoustic waves. The microphone translates movements of the membrane into electrical signals. Basically, a microphone converts acoustic waves into electrical waves.

If one examined the shape of an electrical wave from a microphone, that person would notice that it looks very similar to the shape of the original sound wave. The following is the sound wave we saw in the above explanation:



The following is the electrical wave created by the microphone (notice the measurement for "Current"):



One could say that the shape of the electrical wave is *analogous to* ("similar to") the shape of the original sound wave. This is why these electrical waves that represent sound waves are called **analog waves**.

The main device used in digital *recording* is an **Analog-to-Digital Converter (ADC)**. The ADC measures the voltage of an electrical wave thousands of times per second. It then uses these measurements to create a map of an electrical wave:



Each dot in the figure above represents one audio *sample*. The more samples per second, the more accurate the mapping of the electrical wave.

*Playback* of digital audio uses a **Digital-to-Analog Converter (DAC)**. This takes the samples and converts them back into an electrical wave. In a computer, this electrical wave is sent to a sound card's headphone or speaker sockets and the speakers recreate the original sound wave by vibrating their diaphragms.

A computer's sound card comes with an Analog-to-Digital Converter (ADC) for recording, and a Digital-to-Analog Converter (DAC) for playing audio. Your operating system (Windows, Mac OS X, Linux, etc.) talks to the sound card to actually handle the recording and playback, and audio applications talk to your operating system so that you can play sound files, capture sounds to a file, edit them, and mix multiple tracks while playing, etc.

## QUALITY

Two factors determine the quality of a digital recording:

- **Sample rate:** this is the rate which the ADC records samples or a DAC plays them back. Sample Rate is measured in Hertz (Hz), or samples per second. An audio CD has a sample rate of 44,100 Hz (often written as "44 KHz" for short).
- **Sample format or sample size:** Essentially, this is the number of digits in the digital representation of each sample. Think of the sample rate as the horizontal precision, and the sample format as the vertical precision. An audio CD has a precision of 16 bits.

Higher sampling rates allow a digital recording to accurately record higher frequencies.

Higher sample sizes allow for more dynamic range—better reproduction of loud and soft sounds.

## AUDIO FILE FORMATS

There are two main types of audio files on a computer:

- **PCM** stands for **Pulse Code Modulation**. This is just a fancy name for the technique where each number in the digital audio file represents exactly one sample in the waveform. Common examples of PCM files are **WAV** files, **AIFF** files, and **Sound Designer II** files.
- Compressed audio files are the other type. Modern compressed audio files use sophisticated *psychoacoustic algorithms* to represent the essential frequencies of the audio signal in far less space than PCM files. Examples include **MP3** (MPEG I, layer 3), **Ogg Vorbis**, and **WMA** (Windows Media Audio). Creating one of these files sacrifices some quality in order to use less disk space.

# 2. AUDIO GLOSSARY

Many of these definitions have been drawn from Wikipedia:

- **Actuality** – background sounds and music that you edit into an audio piece, for example crowd noise if you are covering a rally or birdsong if you are making a piece set in a natural environment.
- **Audio** – sound, in the context of broadcast and online sound recordings, production and distribution.
- **Analogue recording equipment** – sound recording technology that preceded digital, and continues to be used, for example reel-to-reel tape machines, these machines reproduce sounds by copying the shape of the sound waves in a medium such as magnetic tape or vinyl.
- **Analogue telecommunications** – include traditional telephony, radio, and TV broadcasts.
- **Broadcast** – the distribution of audio and/or video signals that transmit programmes to an audience; mainly thought of in terms of radio and TV transmissions.
- **Computer-Mediated Communication (CMC)** – any form of data exchange across two or more networked computers. More specifically, those communications that occur via computer-mediated formats (i.e., instant messages, e-mails, chat rooms) between two or more individuals. Online audio is an important kind of CMC.
- **Content** – refers to all the various elements in an audio piece, including the words of an interview or other speech, the linking narrative and the background sound.
- **Digital audio** – uses digital signals for sound reproduction, by converting sound into binary code where each number represents a frequency or an amplitude. All sound on computers is digital, including sound converted from analogue to digital format, stored audio, and transmitted audio.
- **Digital audio player (DAP)** – a device that stores, organizes and plays digital music (or other audio) files. It is more commonly referred to as a MP3 player (because of the ubiquity of the MP3 format), but DAPS often play many additional file formats.
- **Electronic media** – media that use electronics or electromechanical energy to allow the end user (the audience or listeners) to access the content. This is in contrast to static media (mainly print media), which is most often created electronically, but doesn't require electricity to be accessed by the end user in its printed form. The primary electronic media sources familiar to the general public are video and audio recordings, which can be distributed online, via CD-ROM, radio, television etc. Most new media are digital but electronic media may be in either analogue or digital format.
- **Formats** – formats can refer to the type of programme or production, for example a talk show format, an interview format, a feature format. (Audio distribution formats on the Internet include online audio, podcasting and streaming. There are also technical formats, for example analogue, digital, MP3, WAV, AIFF etc, which are different ways of capturing information.)
- **Multimedia** – communications that incorporate multiple forms of information content and types of processing, for example live drama with recorded sound and video.
- **Minidisk (MD)** – is a magneto-optical disc-based data storage device initially intended for storage of up to 80 minutes of digitalized audio. Today, it has developed into a general-purpose storage medium in addition to greatly expanding its audio roots.

- Microphone – an acoustic-to-electric transducer or sensor that converts the varied pressure of sound waves into an electrical signal. Microphones are used with tape recorders, in live and studio audio engineering, in radio and television broadcasting and with computers for recording voice and other sounds, and for Voice over Internet
- New media – a term describing media that can only be created or used with the aid of computer processing power. These media generally permit some interactivity for their audience and are in digital form. The distinction between “new media” and “old media” is difficult to identify since over the last decade many old media enterprises have started to expand into producing new media.
- Podcasting – the distribution of media files over the Internet using syndication feeds, for playback on portable media players and personal computers.
- Portable media players (PMP) – an independent electronic device that is capable of storing and playing back files in one or more media formats.
- RSS – A family of Web feed formats used to syndicate digital content, such as podcasts.
- Soundbite – a very short piece of content edited or extracted from a longer interview that is viewed as particularly relevant or revealing.
- Streaming audio – audio made available via the Internet as a continuous ‘stream.’ Often refers specifically to a “live stream” – (i.e. content that is continuously received by an end-user at the same time as it is being delivered by the provider.)
- Transmission – in general information theory, transmission is taken to mean the complete process of communication of information via a channel, such as a radio broadcast transmission; but increasingly via new technology channels such as Internet.
- Voice over Internet Protocol (VoIP) – also called “Internet telephony,” “Broadband Phone,” and Voice over Broadband – this is the routing of voice conversations over the Internet or through any other IP-based network.

# 3. HARDWARE RESOURCES

This page is based on content from [Tactical Tech's "Message in-a-box"](#)

## RECORDERS

Although digital recorders are increasingly the norm, either an analogue or a digital recorder will do the job. Whichever you use, when you input your recording into your computer it will be converted to digital sound, which you can then edit with free digital sound-editing software. You can use a minidisk recorder, any type of digital recorder (DAT or harddisc), a professional-grade analogue recorder, or a simple “walkman”- style cassette recorder.

If you plan to pitch your piece to on-air radio broadcasters, you should not use a mini-cassette recorder, because the sound they produce is not of broadcast quality. Two important factors that distinguish recorders from each other is the presence of a time counter and the ability to adjust sound levels. Neither are necessities, but both are extremely helpful.

Note that you'll need a special converter to get your analogue sound into digital format to edit on the computer.

## MOBILE PHONES

Once you have captured your pictures, video and sound on your mobile phone you need to get them onto your computer in order to incorporate them into your organisation's campaign communications or your blog post.

Mobile phones typically record sounds using a file format called .AMR, which is primarily designed for phones and should be transferred onto a computer, and converted for editing. Once the sound files are on the computer, they can be converted, using a freeware tool like Mobile AMR converter (<http://tiny.cc/UoB23>), into the .WAV or FLAC format, which can then be edited on the computer using a sound editing tool, such as Audacity (see p. x), or any other audio editing application you already have access to.

There are various ways to get sounds from your phone to your computer:

### Bluetooth Wifi Data cable

Bluetooth is a technology which allows two handsets or a handset and a computer within close proximity of each other to transfer information to each other. Most Bluetooth technology works over a range of approximately 10 metres. Although newer variants can reach further, up to 100 metres, it's most likely that you will use Bluetooth to transfer data off your phone while sitting next to the computer with the phone. To connect your phone and your computer via Bluetooth you should follow the instructions on your computer about 'pairing' a device via Bluetooth. You have to make sure that Bluetooth is switched on, on both devices and follow the instructions. If you are transferring data this way, always remember to switch Bluetooth off when you are finished.

## A MICROPHONE

It's best to have an external microphone for recording so you can put it as close to the sound source as possible. Any standard microphone, uni or omni-directional, will do. Many recorders have a built in microphone that is often more than sufficient for non-broadcast quality recording but may not produce clear enough sound for radio play. If you have to use a recorder with a built-in microphone, be sure to hold the recorder as close to source of the sound as possible – if it is an interview, hold it relatively close to the person's mouth, but be aware that too high an input will create distortion.

## HEADPHONES

You will need a set of headphones to check sound levels as you record. The headphones enable you to hear the sound exactly as it is being recorded, and therefore exactly as the audience will hear it. It's a good idea to record a minute or so of sound in situ before you start and listen back to it on headphones to check for problems such as noise, distortion or insufficient level.

### PRODUCTION

4. Common mistakes in Audio
5. Steps to great audio
6. Integrating Audio with Other Content

# 4. COMMON MISTAKES IN AUDIO

Here are a few common mistakes to avoid.

## **Straying from your plan**

Getting lost and creating something very different from what you planned can be a common problem in creating audio because there are many factors that are not always under your control. For example, an interviewee may not be saying exactly what you expect them to say, or they may be less articulate than you hoped, or background sound may have been a problem.

## **Not going with your gut instinct**

Go with your gut: if it sounded good to you first time then it will sound good to your listener. It's a common mistake to ignore these feelings when you feel you need to include more content or topics. But if it does not sound right you should not use it. If you need to, use narration rather than trying to stretch or mix up sounds that do not work. 'If in doubt, leave it out' is an old saying in radio broadcasting that every new producer is taught.

## **Producing earnest but boring content**

A common mistake is to make earnest, dull audio pieces, especially if the issue in focus is particularly serious. Just because the topic is serious does not mean the audio piece needs to be dull. Use music, sound effects, and actuality (background sound) to spice it up. Un-attributed clips of comments by people on the street – called “vox-pops” – are popular in broadcasting and can give any piece colour and diversity.

# 5. STEPS TO GREAT AUDIO

Follow the steps below to achieve fantastic audio.

## STEP 1 – PLANNING

Creating great audio is not only about sound levels. Planning what you want to produce is the first vital step, and you should revisit your plan throughout the process of making the audio, to make sure that you are still working towards what you had planned.

Your plan should answer the following questions: Who is this for? and What is it trying to achieve? Identify your audience. What is the key message? What do you want listeners to learn / feel / do? What are the barriers to this audience hearing this message?

## STEP 2 – CHOOSING A FORMAT

Choose the right format for your audience and message. Here are some common formats for you to choose from:

- **Panel discussion** – an interviewer with two or more contributors
- **Phone-in** – recording of contributors on the phone; usually used in studio-based context.  
Note: be careful about legal restrictions about recording people in the phone, this is illegal in some countries, even if the person has given permission.
- **Single interview** – with an interviewee and interviewer.
- **Feature** – with voice, background sound, narration and other elements mixed together.
- **Dramatic** – this is a broad category and can include theatre, music and other entertaining formats.
- **Informative/documentary** – a piece that primarily conveys information, in the same way as a public service announcement or advert provides educational information.
- **Endorsement** – using a well known person to convey a message, such as a leader or a celebrity.

## STEP 3 – CHOOSING A STYLE

Choose a style for your audio piece that suits your audience and your message.

o Formal or informal – do you want to use humour and familiarity as tools to reach your audience, or do you want to convey information by invoking authoritative sources and “experts”?  
The most obvious

example of the formal style is a news item, in which the emphasis is put on the authority of the information.

o With a narrator or without – do you want to let the voice of your contributor(s) be the whole audio piece, as many ‘oral history’ productions do, or do you want to incorporate a “presenter” voice to

draw the pieces together for the audience?

## STEP 4 – SETTING UP THE RECORDING

Whether you are doing an interview or capturing raw sound, you need to take time to test the sound levels before you actually start recording. Background sound, such as the hum of an air conditioner, might not have been noticeable before you started recording, but once you have your headphones on it can suddenly sound very loud.

Some background sound can add to the atmosphere, but some can be purely distracting. If the noise is a problem, ask it to be switched off or silenced, or if necessary move to another location. There is nothing worse (and it happens a lot) than to come back with unusable recordings simply because the person making the recording felt too awkward to do anything about it at the time.

If you are doing an interview, take the time to test your contributor's voice for loudness and clarity, and make any necessary changes – such as adjusting the sound levels, repositioning the microphone, or changing the seating arrangement or general environment.

You can also use this test period or “sound-check” as a way to break the ice – people are often nervous about being recorded and uncomfortable speaking into a microphone, but you can take steps to ensure that they are as relaxed as possible. Welcome them, perhaps make a joke, and then tell them that you will ask a few ‘trailer’ questions that won't be recorded. ‘What did you have for breakfast?’ is a standard first question to break the ice, and also to test voice levels.

For some sorts of interviews, you may want to prepare the interviewee(s) in advance by discussing what sort of questions you are going to ask. Especially if the recording is being played live, or if you hope to use the interview without much editing, this is time well spent.

## STEP 5 – REVIEWING YOUR MATERIAL

One of the most important steps in producing audio is to listen back to your recording and make notes or a full transcript of what was said and where the good sounds are located. If you do this in shorthand, it is called a “log.” This step takes time, and a frequent mistake made by audio producers at all levels of experience is hasty logging. This can result in a great deal of wasted time. Time spent reviewing and logging your content is time well spent.

A log can take a number of forms depending on what works for you, but at minimum, be sure to record the time of each new paragraph or new sound (make sure to start your playback at 00'00”), and then additionally the time when there is a good bit of speech or background sound. Note the start time, the first few words, the last few words, and the end time for each section that you like.

For example:

INTRO (00'20"): “I believe the most important aspect is .....

OUT: .....everyone should know this”. (00'50”)

If your recorder does not have a counter button, you can use a stopwatch to capture these times. You might also want to write notes to yourself such as “overview” or “part 3 – significance” to help you remember what part of your story each particular sound connects to. If you set up your log as a table, you can make a column for such notes, and if you do a fuller transcription you can just insert them in the text with a consistent flag. However you choose to do it, think of this step as identifying the building blocks that you are later going to go back to when you edit or mix.

## STEP 6 – EDITING & “PACKAGING” CONTENT

Once you have your building blocks identified, you can go back and start putting your piece together. This may entail recording additional clips of narration to bridge certain themes. Even if your piece has only three sections – for example: a three sentence intro, a two-minute interview, and a conclusion pointing to where listeners can learn more – you still want to have identified these three pieces and thought through how they are going to fit together. At this stage, it is important to refer back to the priorities you identified in Step 1, in order to keep yourself on track.

## **STEP 7 – USAGE & DISTRIBUTION**

If you create an interesting and engaging audio piece, you can make it available to radio stations as well as to online distributors – for example advocacy websites. The Internet enables online audio to be used and accessed around the world, usually at no extra cost to the distributor or user. This makes it a powerful media and advocacy tool that is difficult to block or censor. An audio piece can have a long shelf life, particularly if it is not dated by a reference to a time or event.

The ability to reuse an audio piece is a strength of this kind of resource. Audio work can be archived in an online audio database, and it can be repeated on radio shows in new and different configurations. In order to successfully distribute content to both online or on-air sources, advance research and relationship-building work is necessary.

## **STEP 8 – EVALUATION**

It can be a major challenge to evaluate the success or impact of an audio piece. You can obtain data about who listened online from programs that tally website hits and downloads, and radio stations also have tools to assess audience size. But evaluating the impact and effectiveness of the content of your piece requires focus groups, questionnaires and other methods that are applied to groups of listeners, if these can be identified and such data collection arranged. You could prearrange for a number of people to listen to the audio and give you their feedback, or ask for feedback at the end of the piece, providing a web contact.

# 6. INTEGRATING AUDIO WITH OTHER CONTENT

One of the best things about audio programming is that it can be used to supplement and support other output. In your campaign strategy you may have print products – ad space in newspapers, or flyers and brochures – and events, such as public meetings. Audio can support and amplify all of these – it can repeat and reinforce your print content, it can be a feature at an event, or can extend the event by recording it and making this documentation a feature of future media output.

## MULTIPLE PLATFORMS

The term that new media strategists use to describe this integration is ‘multiple platforms’ – this refers to the ability to put your message or content out via as many routes as possible at the same time, online and offline: playing a recording via local and even national broadcasters can be augmented by also making the recording available online as a podcast download, as a streaming Web file, as a transcript, and even with video and photo clips, all linked with easy-to-navigate Web links. All of these platforms mutually reinforce and benefit each other – they literally amplify your message. In on-air radio programming, mixing audience participation with audio recordings is also a powerful way to engage and involve people in your campaign or advocacy programme. Your target audience can be encouraged to call in to a live programme and have their say – and if well-planned, this format can complement pre-recorded and in-studio content.

## CHECKLIST

Here’s a checklist of things to consider while planning your audio project.

### Audiences

Producing informative and entertaining audio is an effective way of reaching different audiences. People like to listen to other people and new situations – whether it is via radio, online or in person. Rural audiences use radio more than any other medium, particularly if it is in their own local language; people who are not literate also find audio a powerful way of finding out information and learning; and increasingly youth who have internet access are ‘switched on’ to online audio.

### Cost

The cost of making audio is relatively low. It involves access to a digital recorder, and then access to software for editing the sounds into a distributable piece – and both these resources can be shared, and accessed by each producer on a temporary basis. It is also possible to record sound using old style analogue tape recorders (such as a Sony Walkman, which records onto cassettes) and feed this analogue sound into a computer, which converts it into digital sounds for editing. You can learn how to do this and more in the guide to using Audacity on the Message in-a-box website under Audio.

Audacity is the free and open source audio editing software featured in this toolkit. It can record and edit audio. You might use Audacity for recording sounds, like interviews or music. You can then use Audacity to combine these sounds and edit them to make documentaries, music, podcasts etc. Time and duration

Audio pieces normally range in length from 30 seconds (the length of most radio or TV ads) to five minutes (the length of most news items on a radio programme). Documentaries and longer features, however, may be up to half an hour in length or more. The time needed to make an audio piece can be calculated approximately as an hour for every five minutes of broadcast time, but of course this varies enormously with the nature of the piece and the experience of the maker/s.

## **Skill levels required**

For gathering audio, simply being able to get the sound right – through listening to your interviewee and adjusting sound levels as they speak – is all that is required. Most community radio volunteers learn to record sound well within a few days of practice. The editing stage requires a higher skill level, but it is also increasingly accessible to the beginner.

## **Timeline**

The '1 hour for every 5 broadcast minutes' rule is not a scientific assessment but one based on many radio producers' experience. At least half of this time is spent sourcing and recording the piece, along with going through the content and making decisions about what to use and what to leave out, and then additional time distributing it to listeners.

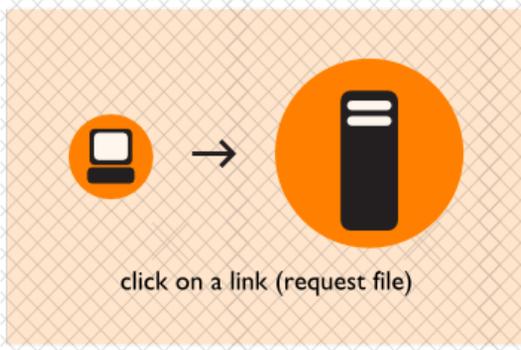
### **PODCASTING**

- 7.** What is Podcasting?
- 8.** What is XML?
- 9.** What is RSS?
- 10.** Choosing a podcasting system
- 11.** Anatomy of RSS
- 12.** Overview of Making a Podcast
- 13.** Publicise your Podcast

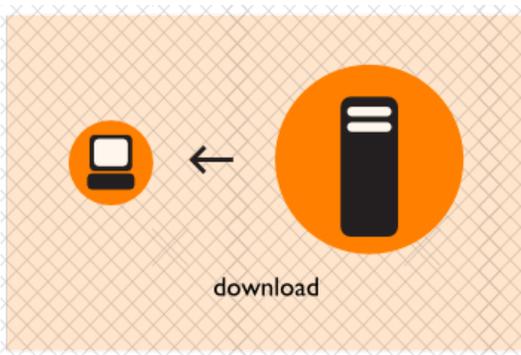
# 7. WHAT IS PODCASTING?

A **Podcast** has come to mean any audio programs made available for downloading from a website. If I make an audio documentary and put it on my web page for download many would call this a Podcast. However this is not really what Podcasting is. A Podcast is a method of subscribing to audio content.

This is quite unlike the traditional way of downloading content. Usually this process involves browsing to a site, find what you want, then click on the link to download it.



Somewhere on the net is a computer that has that file and delivers it to your computer through the browser.



This is ok if the website has just a couple of audio files to distribute. However if the website makes new audio available regularly then you have to remember to check the site periodically, find the new content, and click on the link to download it. This is inefficient and very time consuming.

Podcasting is intended to make exactly this situation more manageable. A Podcast enables you to subscribe to content so that you are notified of new material when it is made available. The software that manages this kind of subscription will then conveniently download the content for you without you needing to continuously revisit the webpage.

# 8. WHAT IS XML?

Well, a simple answer is that **XML** is an acronym and it stands for **Extensible Markup Language**. Satisfied? Maybe you have a few other questions - Why isn't it called 'EML' then? Is 'Markup' really a word? Well, I have no idea. Probably though, 'markup' isn't a word.

You might also be wondering what XML actually is. To understand XML we have to think a little about how software works. Essentially softwares, although functionally sophisticated, are "as dumb as slugs" (as Derek Holzer would say). That means that they can only understand information if it is delivered using very strict rules. If the information is not delivered *exactly* in the manner they understand then softwares either crash, make a mess, or don't do anything. So it is important to find ways to pass information to software using these strict rules.

XML is designed exactly for this purpose. XML is the set of rules governing how a text document should be written so softwares will understand it.

## WHAT DOES XML LOOK LIKE?

Interestingly, XML has been designed in a very flexible way so that it can be used to describe almost any kind of information. Essentially you can define your own categorisation of information within an XML document. For example, lets imagine that you have an address book software. This software might store all the contact details in a text file that follows the XML rule set (normally just referred to as 'an xml file').

So there might be the contact details for two people in the file, and for each person we have the name and phone number. An XML document representing the data of one person might look like this:

```
<CONTACT NAME="Jane Hudson">
  <NAME>
    <FAMILY>Hudson</FAMILY>
    <FIRST>Jane</FIRST>
  </NAME>
  <TELEPHONE>
    <AREACODE>+21</AREACODE>
    <NUMBER>29210101</NUMBER>
  </TELEPHONE>
</CONTACT>
```

Having two people in the address book file might look like this:

```
<CONTACT NAME="Jane Hudson">
  <NAME>
    <FAMILY>Hudson</FAMILY>
    <FIRST>Jane</FIRST>
  </NAME>
  <TELEPHONE>
    <AREACODE>+21</AREACODE>
    <NUMBER>29210101</NUMBER>
  </TELEPHONE>
</CONTACT>
<CONTACT NAME="Robert Hull">
  <NAME>
    <FAMILY>Hull</FAMILY>
    <FIRST>Robert</FIRST>
  </NAME>
  <TELEPHONE>
    <AREACODE>+67</AREACODE>
    <NUMBER>8128282</NUMBER>
  </TELEPHONE>
</CONTACT>
```

So, as you can see it is a very structured way of representing information. The categories are defined by items known as **elements**. So '<NAME>' is referred to as the 'name element', and each element may have as many 'sub-elements' as you wish. For example, the <NAME> element in the above example contains two other elements - <FAMILY> and <FIRST>. It could contain more if there was a need (for example <MIDDLE> for recording a middle name).

## WHAT ARE COMMON USES OF XML?

XML defines many types of documents on the internet. For example, if you click on a link to subscribe to a Podcast you are actually clicking on a link to what is known as a RSS file. This RSS file can be read by most media players (eg, iTunes or Rhythmbox). Although the media player downloads the audio (Podcast) for you to play it is actually the RSS file that you subscribe to. An RSS file is a specific type of XML file, one with a specific set of categories (elements) already defined. The rules used to create the RSS file are specific to RSS but follow the 'meta' rules of XML. In the case of a 'Podcast' the RSS file tells your media player what the name of the audio file is defined by 'title element' (<TITLE>), and there are other elements for storing a description, and information about where the audio can be downloaded etc.

RSS files are also used to manage 'news feeds', 'blog feeds' and other subscription content online.

That isn't the extent to which XML impacts on the WWW. Its effect is far far greater. HTML is another type of file that is understood by web browsers and describes the content and look of webpages. Most webpages are HTML pages, and there is a variety of HTML that follows the XML rules. This variety of HTML is known as XHTML and is very commonly used.

It is impossible to know how big the world of XML is because many softwares you won't have even heard of use it as a document storage format, and it is used by many more for exchanging data between softwares.





The above icon is called the **universal feed icon**, and may appear on webpages (but a lot smaller!) that have a feed available. Clicking on the icon should enable you to subscribe to the feed using your favorite RSS Reader (also referred to as **agregators**, or **feed readers**) or, in the case of a Podcast, you can subscribe using your favorite media player (not all of them support this functionality however).

## WHAT DOES AN RSS FILE LOOK LIKE?

When we speak of an RSS file it is really the content of an ordinary text file we are referring to. RSS is the set of rules that dictate how to write a RSS document. If you follow the rules correctly your file can be referred to as a **valid** RSS file. There are softwares and websites that you can use to check if a RSS file is valid.

You write a RSS file using a text file editor, on **Windows** this might be **NotePad**, on **MacOSX** it might be **TextEdit**, on Ubuntu or other varieties of Linux you have a wide variety of text editors including **Text Editor**, **Gedit**, **vim** etc.

If you are not used to looking at computer code the structure of an RSS file will look quite odd. Here is a sample:

```
<?xml version="1.0"?>
<RSS version="2.0">
  <CHANNEL>
    <TITLE>FLOSS Manuals</TITLE>
    <DESCRIPTION>At FLOSS Manuals you can find all the free manuals you could ever want!</DESCRIPTION>
    <LINK>http://www.flossmanuals.net</LINK>
  <ITEM>
    <TITLE>Quote of the day</TITLE>
    <DESCRIPTION>Free as in Media</DESCRIPTION>
    <LINK>http://www.flossmanuals.net</LINK>
  </ITEM>
</CHANNEL>
</RSS>
```

The above is the content of a ficticious RSS feed. If you were to copy the above example and put it online then it would indeed be a feed you could subscribe to, though not a very useful or interesting one.

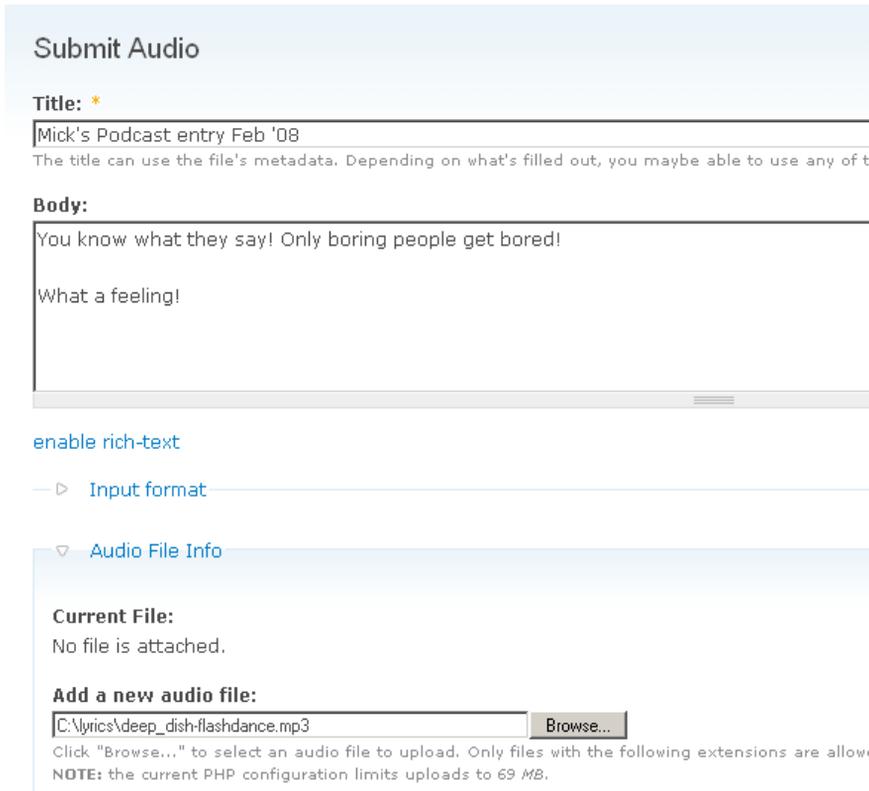
If you know a little about **HTML** then you might think it looks a *little* familiar. Actually RSS rules are derived from another set of rules known as **XML**, and some versions of HTML also conform to these rules. A simplification of how XML and RSS relate is to consider XML the set of rules governing the structural layout and syntax of the file, while RSS is the set of rules that defines what information can be included and where.

# 10. CHOOSING A PODCASTING SYSTEM

A podcasting distribution system will allow you to easily update your podcast feed every time you publish a new episode, this ensures people who subscribe to your podcast will automatically download the latest episode when they launch their Podcast playing software (iTunes or Songbird). Such a system is normally called a Content Management System (CMS).

## HOW A PODCASTING DISTRIBUTION SYSTEM WORKS

To create a podcast you can either sign up to a web-based service or install software on your own server. When the software is installed it takes the form of a website which may look something like this when you choose to upload a file for your podcast.



**Submit Audio**

**Title: \***  
Mick's Podcast entry Feb '08  
The title can use the file's metadata. Depending on what's filled out, you may be able to use any of the

**Body:**  
You know what they say! Only boring people get bored!  
What a feeling!

[enable rich-text](#)

—▶ [Input format](#)

▼ [Audio File Info](#)

**Current File:**  
No file is attached.

**Add a new audio file:**  
C:\lyrics\deep\_dish-flashdance.mp3   
Click "Browse..." to select an audio file to upload. Only files with the following extensions are allowed.  
NOTE: the current PHP configuration limits uploads to 69 MB.

When you have submitted a form like the one above, normally a podcasting CMS will do two things. Firstly it will create a page where your audio file can be downloaded and visitors to the website can see details about it, for example the title, description etc. Secondly it will add the details of the file to the RSS feed that the website creates.

Different systems will present your podcast in different ways. The system we are using for this example is Drupal which presents a standard RSS icon at the bottom of the main page.

## Where is my Mind - The end track to Fight Club

Thu, 03/08/2007 - 17:38 — mickfuzz

[Click to play minutes \(892.11 KB\)](#)

In this introduction to the podcasting workshops we talk briefly about the impact that soundtracks have on a film.

[Download audio file](#) 2 downloads 1 plays [Add new comment](#) 1 attachment

1 2 next › last ›



This icon which links to the RSS file allows you to subscribe to the podcast feed. If you take a closer look at the RSS file you should see the details of your recent addition.

```
Source of: http://livewire.clearerchannel.org/?q=rss.xml - Mozilla Firefox
File Edit View Help

<?xml version="1.0" encoding="utf-8"?>
<rss version="2.0" xml:base="http://livewire.clearerchannel.org"
xmlns:dc="http://purl.org/dc/elements/1.1/"
xmlns:itunes="http://www.itunes.com/dtds/podcast-1.0.dtd">
<channel>
<title>Livewire Podcasting! - If it moves Pod it!</title>
<link>http://livewire.clearerchannel.org</link>
<description>If it moves Pod it!</description>
<language>en</language>
<item>
<title>Mick's Podcast entry Feb 08</title>
<link>http://livewire.clearerchannel.org/?q=node/18</link>
<description>&lt;p&gt;You know what they say! Only boring people get bor
&lt;p&gt;What a feeling!&lt;/p&gt;
</description>
<enclosure
url="http://livewire.clearerchannel.org/?q=audio/download/18/deep_dish-fl
length="3945684" type="audio/mpeg" />
<itunes:duration />
<itunes:author>deepdish</itunes:author>
<comments>http://livewire.clearerchannel.org/?q=node/18#comments</commen
<pubDate>Wed, 06 Feb 2008 21:37:44 -0600</pubDate>
<dc:creator>mickfuzz</dc:creator>
<guid isPermaLink="false">18 at http://livewire.clearerchannel.org</guid
</item>
<item>
<title>ghost story</title>
<link>http://livewire.clearerchannel.org/?q=node/17</link>
```

So those are the essentials of what you want from a Podcasting system;

- Some way of uploading or linking to your audio file
- Away of presenting the audio file and data via webpages
- The RSS feed

There are many different systems for creating podcasts. Let's look at some of them with regards to other features that you might want for your podcast creating software.

## USING A SERVICE OR SETTING UP YOUR OWN SYSTEM

When talking about a service for podcasting, this means that you sign up to a website that allows you to create your own podcast. There are many around. Some are commercial and use adverts placed around your content to generate revenue. Others services are non-profit and apply to foundations and trusts to finance the cost of running the service. Some are even just run by volunteers.

When we mention 'setting up your own system' for podcasts. This means installing some software on an internet server which you have access to.

There are advantages and disadvantages to either method. The answer to which you choose will probably depends a lot on the resources you have at your disposal and how particular about how your web presence is going to look.

## Using a service

The good news is that you can get most of the benefits and features of podcasting by using free services; the only disadvantage being that you are not able to customise the look of the service to suit what you need.

If it's essential that you host your files in a totally non-commercial setting then most solutions use the Internet Archive (archive.org) as a free hosting service. After all it won't look good if you create a video condemning a commercial product or corporation and then have your video hosted on a page which contains an advertisement by the corporation you are criticising.

In this way archive.org is a good solution as it doesn't feature advertisements. However it doesn't create personal Podcasts or give you a home page to customise. You will have to use another system like Ourmedia in combination with the free hosting of the Internet Archive to achieve those aims.

## Some free services - advantages and disadvantages

[Ourmedia.org](#) offers you a homepage with your own featured audio / video file. However because they use external hosting with archive.org, it can be a bit tricky to get started, especially if you need to upload large files. You need to sign up for accounts with three services to get started which can make it really challenging.

[Wordpress.com](#) also offers a free service but it has the same issue unless you pay a relatively small fee to upgrade to a Pro account, which allows you to upload large files. There are ways to get around the lack of file uploading for the basic account. You can embed video that you have uploaded elsewhere, to services like Blip.tv, for example.

The easiest way to create your own Podcast page is to use a commercial service like [Blip.tv](#) (audio and video) or [Daily Motion](#) (video). While you can't totally customise the look of your home page on these sites, there are a lot of really nice features available besides automatic podcast creation.

One such feature from Blip.tv is a player which you can customise and host on other websites. It has a list of your files which it can play and a link to your feed in different formats. This is shown below.



## Setting up your own system

But of course if you do have access to a webserver that you can play about with and the services of a good internet techie, then you can create a much more customised, and 'richer' web presence for your Podcast. Setting up your own system will allow you to take advantage of most of the podcasting features mentioned on this page.

Normally these systems will require access to a MySQL database or similar, ftp access to an internet server running Apache or similar and php. There is a certain level of technical knowledge that is required to set up such a system. It's worth doing some research before starting on this path.

## UPLOADING 'LARGE' FILES

Web forms generally provide an easy way to upload files to your website. However files over 25-30mb can start to be tricky to upload with web forms if you don't have a fast internet connection.

### Add a new audio file:

Click "Browse..." to select an audio file to upload. Only files with the follo

**NOTE:** the current PHP configuration limits uploads to 69 MB.

In this example, while the server limit is set to 69MB, your local connection might not be stable enough for that to work. To counter this problem, Podcasting systems often have alternate ways of uploading large files.

You will therefore need to use other methods to upload your files such as a publishing tool or an FTP package (File Transfer Protocol).

## A publisher tool

Publishing tools that you download and run on your computer allow you to upload your file to the internet along with the details. Some examples are archive.org's [CC publisher](#), Blip.tv's [UpperBlip](#) or Ourmedia's [spinXpress](#). This is very useful for 'large' files as the connection created by these tools is much more stable than that of web forms.

## ABILITY TO LINK TO FILES

Say you already host your audio files somewhere else, maybe a service like archive.org or someone has kindly offered to do that. If this is the case then it makes sense that you will want to 'link' to your online audio rather than having to upload them via web-forms. If this is something you need to do you'll probably want to use a more advanced system like Wordpress or Drupal.

## CATEGORISING YOUR PODCAST ENTRIES TO CREATE DIFFERENT FEEDS

It may be useful to you to create different Podcasts using the same Podcasting system. For example you might want to have a Podcast feed on Manchester events, and one on Gardening. However you may want to create a Podcast entry on a gardening event in Manchester. If you have a system that allows you to create different categories for each entry then you only have to upload your file and details once and mark it with the appropriate categories to make it entry to appear in both Podcast feeds.

This can be done in various ways with different Podcasting systems. It would take too long to explain the full details of each system. But here is one way of doing it in Drupal.

**Keywords:**

manchester events, gardening

A comma-separated list of terms describing this content. Example: funny, bungee jumping, "Company, Inc."

**Body:**

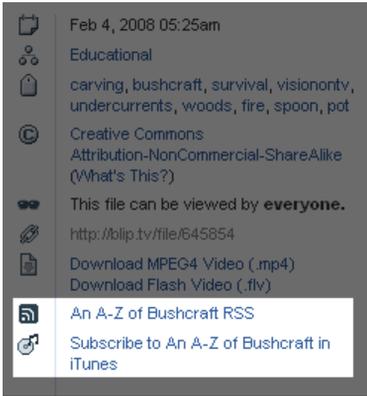
Audio interview with 'Manchester Forks Itself' - radical gardening group.

## COMPATIBILITY WITH VIDEO PODCASTING

If you are an audio podcaster, you may not feel that this is a problem. However there are some systems that allow you to create Video podcasts as well as Audio podcasts using the same technology. Even if you or your group aren't using video now, if you can imagine a situation where you may wish in the future, it's probably worth making sure you choose a system that can handle video files.

### Compatibility of your Podcast with 'Podcatchers'

After going to all the effort of creating your podcast you want to make sure that it is compatible with as many Podcast players (Podcatchers) as possible. iTunes, [Juice](#) and [Songbird](#) being some of the most prominent.



For example the image above from a page on Blip.tv shows links to 2 different kinds of Podcast feeds. One is a standard Media RSS feed and the other is a slightly different one for iTunes so that it can appear in the correct category.

# 11. ANATOMY OF RSS

Before you create an RSS file you need to know a little bit about the format and structure of RSS. First lets look at what a very basic Podcast file might look like:

```
<?xml version="1.0" encoding="UTF-8"?>
<rss version="2.0">
  <channel>
    <title>Gem_Sqash</title>
    <link>http://adam.engagetv.com/</link>
    <item>
      <title>This is my show</title>
      <enclosure url="http://adam.engagetv.com/gem_sqash/01_vlf.mp3" length="1000"
type="audio/mpeg"/>
      <pubDate>Mon, 1 Apr 2007 12:00:00 GMT</pubDate>
    </item>
  </channel>
</rss>
```

We need to break down this information into palatable chunks, first lets look at what an element is :

## RSS ELEMENTS

In the above example you can see many words that appears between < and > brackets. This is called an **element**. For example <title> is an element, also called the **title element**. When we say 'put some text in the title element' we mean something like this :

```
<title>Gem Squash</title>
```

### Tags

Every element has what is known as a **start tag** and an **end tag**. The start tag contains just the name of the element. The end tag is the same except that it has a '/' preceding the element name. A start tag looks like this '<title>' and an end tag looks like this '</title>'.

An element must have an open tag and a corresponding closing tag (there is one exception to this rule but we will come to it later).

You can put other elements between open and closed tags like so:

```
<item>
  <title>This is my show</title>
</item>
```

The rules governing the use of tags is XML. XML is very strict and if you make one small error then the file is said to be 'invalid' and it will not work. So watch those open and close tags carefully.

The important thing to remember at this stage is that you don't need to understand too much about the mechanics of XML tags. If you need to use it, its best to find an example online that is close to what you want, copy it, and change the information to reflect your own Podcasts. You will learn the syntax as you need to. For now you just need to make sure the document is following exactly the format described here.

### Attributes

#### What do elements do?

XML tags are used to store information. I could use tags in a XML document to store information about a dog (don't try this in your Podcast example it won't work! its just an example to show you how tags work). Writing something like:

```
<name>Ralph</name>
```

is like saying "the name is ralph". However, in this example we don't know *what* is called Ralph. Is "Ralph" a person? a dog? a cat? my neighbor? So I have to say *who* the name belongs to:

```
<dog>
  <name>Ralph</name>
</dog>
```

If the dog Ralph was black I might write:

```
<dog>
  <name>Ralph</name>
  <color>black</color>
</dog>
```

Using this simple structure we can describe an object like a dog with as many characteristics as we like. In the world of XML the dog is known as an **element** and the characteristics it has are known as its **child elements**.

Now lets take our little fantasy XML world further. Lets say there is a man named 'Pete' in this world. We would write this like so:

```
<man>
  <name>Pete</name>
</man>
```

So, if we were describing Pete and Ralph together we could do it in the same XML file like so:

```
<man>
  <name>Pete</name>
</man>
<dog>
  <name>Ralph</name>
  <color>black</color>
</dog>
```

Ok...so here a nice trick. Lets say that actually the dog Ralph belongs to Pete. In our XML document we can display this like so:

```
<man>
  <name>Pete</name>
  <dog>
    <name>Ralph</name>
    <color>black</color>
  </dog>
</man>
```

As well as properties (eg. name or color) belonging to an object, objects (for example - the dog) themselves can belong to other objects.

Similarly, we can use XML tags to store information about a Podcast. A tag for a single Podcast audio file is an **item** (its not a very descriptive name but the gods of RSS have determined we must use it). The following example shows how we store information about the name and published date of a Podcast item (there are many more properties that could also be used) :

```
<item>
  <title>This is my show</title>
  <pubDate>Mon, 1 Apr 2007 12:00:00 GMT</pubDate>
</item>
```

# THE PODCAST XML

Ok, so lets get back to the world of XML for Podcasts. The basic structure is this:

```
<channel>
  <item></item>
</channel>
```

## channel

A channel is derived from the language of television. In television you have channels. Each channel is a certain grouping of programs, and you know you can tune into that channel to watch a particular kind of show. RSS allows this kind of grouping. You could have several channels in one RSS document and users could decide which is the one they wish to subscribe to. In this way if you produce a lot of audio content of different genres (for example) you can decide how to group these.

In our example we have just one channel.

Each channel needs a name. So here you can give your channel a name using **title tags**. For example, this is all that is needed to give a channel a name :

```
<channel>
  <title>Gem_Sqash</title>
</channel>
```

## item

Next we give the channel its first program (audio file), this is done using an **item** tag and giving the item tag some properties.:

```
<channel>
  <title>Gem_Sqash</title>
  <item>
    <title>This is my show</title>
    <enclosure url="http://adam.engagetv.com/gem_sqash/01_vlf.mp3"
length="1000" type="audio/mpeg"/>
  </item>
</channel>
```

You will notice there is one line here that doesn't doesn't fit the rules we have learnt so far. The **enclosure** tag.

## enclosure

```
<enclosure url="http://adam.engagetv.com/gem_sqash/01_vlf.mp3" length="1000"
type="audio/mpeg"/>
```

The above line is the **enclosure element**, and it just describes the location online of the audio file, its length, and what kind of audio file it is. You will notice it doesn't have a corresponding closing tag. Don't worry about, its ok, the rules for Podcasts tags allow this. The **url** is the location of the audio file online and it has to have a full url, this means it must be of the format

"http://www.mydomain.com/myaudiofile.mp3" - the location url must start with "http://". The additional information included in the enclosure element are **length** and **type**. The length refers to the *filesize* of the program not the duration. If you do not know what the file size is (measured in bytes) then exclude the information like so:

```
<enclosure url="http://adam.engagetv.com/gem_sqash/01_vlf.mp3"
type="audio/mpeg"/>
```

The **type** refers to what kind of audio file it is. I recommend for your first example you use an MP3 file, in which case you would leave this as it is.

## pubDate

The **pubDate** element lists the date that the item was published. Some podcast programs will not recognise a new program (item) unless this information is present.

## xml and rss

Lastly we need to include two lines at the top of the document. Take notice of the first two lines in our original example:

```
<?xml version="1.0" encoding="UTF-8"?>
<rss version="2.0">
```

These are necessary to include in your file, if you don't include them your podcast won't work. These two lines determine what type of tag structure we are using for the feed. This is necessary as the softwares that need to interpret this information need to know what rules to follow. Make sure you type these lines exactly as you see them above. In the above example we are stating that we want to use the XML version 1 syntax together with the RSS version 2 rules for tags. There are many other varieties, which is why it's important to state here which variety of RSS file is being used.

## THE COMPLETE FILE

So our final XML file looks like this:

```
<?xml version="1.0" encoding="UTF-8"?>
<rss version="2.0">
  <channel>
    <title>Gem_Sqash</title>
    <link>http://adam.engagetv.com/</link>
    <item>
      <title>This is my show</title>
      <enclosure url="http://adam.engagetv.com/gem_sqash/01_v1f.mp3" length="1000"
type="audio/mpeg"/>
      <pubDate>Mon, 1 Apr 2007 12:00:00 GMT</pubDate>
    </item>
  </channel>
</rss>
```

Ok. If you replicate this and use your own information then you can put the file (and audio file) online and you have your first Podcast!

# 12. OVERVIEW OF MAKING A PODCAST

When you subscribe to a **podcast** you subscribe to a **feed**. The feed is a text file that contains all the information needed to activate and manage your subscription. The feed is usually linked from a webpage so you can click on it to begin a subscription to the Podcast. So a Podcast requires two main elements : the audio, and the feed.

Making a Podcast requires the following steps:

1. making an audio file (or files)
2. making a **feed** (a text file with the information required to subscribe to the podcast)
3. uploading the audio and feeds to a web site
4. linking the feed from a webpage

To make the audio file you will need to use an audio editor like **Audacity** (it works equally well on OSX, Linux, and Windows).

To make the feed you will need a handy text editor. Use a text editor that can work with plain text files. You do not want to use a text file format like '.doc' or 'rtf' as these kinds of text files are not readable by Podcasting software. Good examples of editors include **BEdit** (MacOSX), **Notepad** (Windows), or **GEdit** (Linux).

You will also need access to a webserver so you can upload the feed and the audio file(s). To do this you usually need a handy **FTP** application and know how to use it (I recommend **FireFTP**). That means you also need the access details (address, username, password) of the webserver you will upload the feed and audio to.

# 13. PUBLICISE YOUR PODCAST

It's important to be able to publicise your podcast. Part of this process is to be able to track how many and who is subscribing to your feed.

## CREATE A SUBSCRIBE BUTTON FOR YOUR PODCAST

It is helpful to have a small graphic button which links to an RSS feed of different kinds of content. Here are some screen shots of different websites. The way that people subscribe to them is details in a tutorial here.

This tutorial will show you how to create one of these buttons to incorporate into your webpage. It assumes you have created an audio or video feed and that you know the URL (the web address) of the feed. There is also a way of getting iTunes and the Miro video player to subscribe to your podcast just by clicking on it. This is detailed at the end of this tutorial.

## ADDING GENERIC MEDIA RSS BUTTON

There are some online tools which allow you to enter the address of your Media RSS feed and create a button to go with it.

<http://www.toprankblog.com/tools/rss-buttons/> - Here is one.

You need to fill out the form and choose which graphics you want to use. Annoyingly there isn't currently one saying 'Podcast' or 'Media RSS'.

\* This button must be hosted on your site.

**Step 2: Choose Code Type:**  Default  DropDown Menu  Blog Specific

**Default** - Basic code. Use this if you don't know or if you have a Feedburner feed.  
**DropDown Menu** - This creates a cool drop down menu, however more code is created.  
**Blog Specific** - These buttons tie directly into Wordpress, Blogger, MovableType or Textpattern blogs.

**Step 3: Enter Feed Information**

<input type="text" value="mick's video blog"/>	:	Blog Title
<input type="text" value="http://mickfuzz.wordpress.com"/>	:	Blog URL
<input type="text" value="com/MickfuzzWordpressBlog"/>	:	Feed URL

**Step 4: Separators (optional)**

Use this to add HTML formatting to the final code. Example: You can add `<ul>` `<li>` `<p>` `<br>` tags to get the output like you like.  
**Note:** Please do not add double quotes (") use single quotes (') instead.

<input type="text"/>	:	Before all buttons
<input type="text"/>	:	Before each button
<input type="text" value="&lt;br&gt;"/>	:	After each button
<input type="text"/>	:	After all buttons

When you click on Create Buttons you are presented with some code to embed in your website or blog.

## Instructions



**Optional:** [Download all the images](#) for use on your own server.

To use the buttons, copy the code below into the source code for your blog's template.

Since you picked blog specific buttons, this code is dynamic. Once your blog page is loaded, the values should populate themselves. This code is dynamic and can only be used in a blog template.

## Feed Buttons HTML Code

XML

Technorati

Get RSS Buttons

```
<a title='Subscribe to my feed'
href="http://feeds.feedburner.com/MickfuzzWordpressBlog"
style='text-decoration:none;'><span style='border:1px
solid;border-color:#FC9 #630 #330 #F96;padding:0 3px;font:bold
10px
verdana,sans-serif;color:#FFF;background:#F60;margin:0;'>XML</s
<br><a
href="http://technorati.com/faves?add=http://mickfuzz.wordpress
src="http://static.technorati.com/pix/fave/tech-fav-5.gif"
alt="Add to Technorati Favorites!" border="0"/></a>
<br><div style="font:9px Verdana, Arial, Helvetica,
sans-serif; width:100px;"><a
href="http://www.toprankblog.com/tools/rss-buttons/" >Get RSS
Buttons</a></div>
```

You now need to embed this code in your page, or side bar of your blog.

## ADDING A 1-CLICK BUTTON FOR MIRO

This part of the tutorial is from [makeinternettv.org](http://makeinternettv.org)

We suggest you test your feed in the various players *before* you commit to using a 1-click button. Make sure the feed works and that the experience is good.

When a visitor clicks a 1-click button, Miro opens up with the feed automatically subscribed to and ready to watch (when Miro isn't installed, the button leads to a download page).

Miro 1-Click Subscription

Here is an example of a 1 click button.



Use the [Miro 1-Click Button Maker](#) to create a button for your site — paste in your RSS feed and then you will get code for a personalized button. Just paste the HTML into your site.

## CREATING CODE FOR AN ITUNES CHICKLET

Here is another way of creating a iTunes button. Use the graphic and code below.

Code:

```
<a href="itpc://feeds.feedburner.com/MickfuzzWordpressBlog" target="_self" title="podcast">

</a>
```

Button:



We need to change the code so that it links to your Media RSS feed. Also, note that instead of linking to <http://> change that to <http://> , at the front of your feed.

## EMBEDDING THIS CODE IN YOUR WEB PAGE / BLOG

If you know how to embed HTML code in your website or blog that's great. If not there are so many different blog types that is difficult to explain how to do it for all of them. For help on doing this for an HTML page you can look at the chapter embedding video into an HTML page.

## USING FEEDBURNER TO TRACK YOUR SUBSCRIBERS

### Finding your Feed

An RSS feed is a URL, just like any other link on a website.



Scroll to the bottom of the page and look for the RSS feed links.



Right click (for mac, **ctrl + click**) on **Entries (RSS)**. Now select **Copy Link Location (Copy Shortcut** for Internet Explorer).

### Burn a Video RSS Feed

Browse to [Feedburner.com](http://Feedburner.com).



I am a podcaster!

Use **Edit > Paste** to input your RSS address into the field. **MAKE SURE YOU CHECK THE BOX THAT SAYS I am a podcaster!**

Now click the **Next** button.

### Create a Feedburner Account

Now Feedburner will prompt you to create an account.



Make sure your feed title and address are good, and then fill out the account information. Once you're set, press the **Activate Feed** button.



The link in blue is your optimised **video RSS feed**. In order to have viewers subscribe to your videos, they will need this magic link. **Write it down.**

### Customize Your Feedburner Feed

Feedburner has a ton of advanced options, such as custom feed icons, descriptions and titles.

TRAINING RESOURCES

14. PHONE OUT ACTIVITY

15. Internet Radio Course

16. Somebody Should Set The Title For This Chapter!

17. hello this is cosmo!!

# ACTIVITY: RECORDING A PHONE CALL

## Estimated time mins

**Task:** make a recording of a phone call and edit it into a short radio programme. The idea is to Do a “call out” show – grab an event and do a call out to find out what’s happening.

### Planning:

10 mins - Get together in groups of 3 or 4 to look at the Internet and find an event that you would like to cover in the future. See if you can find a contact detail for one of the organiser

### Recording:

5 mins - Set the Scene. Give a short summary of the situation.

10 mins - Make the Call. Set up a voice recorder and place it next to a phone which has speaker phone options.

15 mins - Edit the call: Connect your voice recorder to your computer. Import your audio into Audacity the With Audacity clear any blank spaces save as an mp3

<http://en.flossmanuals.net/audacity/>

The relevant chapters are Basic Editing, Opening a File and Recording

### Uploading and Distribution:

10 mins - Upload your save mp3 of the call to an Internet site which can deal with uploaded audio file. Get the URL of the page which hosts your file and send it to 3 friends. If you haven't decided on a website to upload to you can upload to Wordpress.com.

<http://en.flossmanuals.net/WordPress/PodcastingWithWordPress>

# 15. INTERNET RADIO COURSE

A sample course structure to create an Internet Radio station and programmes for it.

## COURSE INFORMATION

Build on skills to record, mix, encode and distribute audio. This course is aimed at young people or people who have an aim of introducing music. It makes reference to online chapters.

### ***Work out your music show.***

**Task:** Write a script including some of the following information.

- Music Types you will play
- Information about yourself and the show
- Contact details

Use this exercise as a way of working out what you will put on your show. The music, guests, information and ways people can get in touch with you. Remember this is starting off an Internet Radio show so make sure you let people know about the website we are working with.

### ***Record an Introduction.***

**Task:** Set up microphones, mixer and computer to record the voice part of the introduction to your show. Then save your project and export an mp3 file.

There are different ways we can record your voice. We can use a portable voice recorder or studio microphones with a mixer. Either way we want to get a natural sound. To do this you may have to do several recordings. Get used to trying to remember what you going to say and saying it in your own words without reading.

You could work with someone else to help you sound natural.

#### ***Tools***

Microphone / Mixer / Soundcard (Line in)

Audacity - Introduction -

Audacity - Basic editing: <http://en.flossmanuals.net/Audacity/BasicEditing>

Audacity – Exporting: <http://en.flossmanuals.net/Audacity/ExportingAFile>  
Transfer to another computer via a USB Stick

### ***Open Voice MP3 File & mix with music***

**Task:** Create your Introduction

Open your Voice recording of you describing your show and mix it with some audio. We want to create two tracks one of the audio you recorded of your voice and the other one of the music you want to use.

#### ***Tools***

Audacity 'Creating Fades': <http://en.flossmanuals.net/Audacity/EnvelopeTool>

Audacity 'Add a new track': <http://en.flossmanuals.net/Audacity/AddTrack>

Audacity 'Open a file': <http://en.flossmanuals.net/Audacity/OpenFile>

### **Upload audio file to Internet.**

**Task: Upload our files and mixes to the internet.**

We can do with a free option, although if we get desperate we can pay a bit of money to wordpress.com and they'll do it for us.

[Http://www.Chalktalk.info](http://www.Chalktalk.info) - is a site run by people's voice media. It's a good space to put short audio files. ie 'News & Short Mixes'

<http://www.archive.org>- for longer mixes but this isn't really a music community

**NEEDED:** We need to source website addresses for: 'Long Mixes' with a good community that can give feedback and support.

#### **Tools**

**Uploading Video to chalktalk: to come**

**Uploading Video to archive.org:** <http://en.flossmanuals.net/ArchiveOrg/VideoUploadBasic>

### **Setting up your website : Wordpress.com**

Setting up your website can be done in many different ways. We are going to use Wordpress.com for this course as it is flexible and free.

Introduction: <http://en.flossmanuals.net/WordPress/Introduction>

Add a Post: <http://en.flossmanuals.net/WordPress/ADDAPOST>

Add Images: <http://en.flossmanuals.net/WordPress/AddingImages>

Add Links: <http://en.flossmanuals.net/WordPress/AddingLinks>

### **Linking to Mix / Audio file on: Wordpress.com**

Now that our audio file is uploaded to the internet and we have a URL (web address) for it. We can now link to you the file and create a player on our Wordpress site.

#### **Tools**

Create a Streaming Audio player:

<http://en.flossmanuals.net/WordPress/CreateaStreamingAudioPlayer>

### **Link audio files and mixes to Social Networking sites**

Now we have our audio player working on our website we can start to make some noise about the show. Using email and Social Networking tools lets get some listeners for our show.

**Task:** Discuss as a group your tactics for promoting your shows. How can you work together to do this. How often do you want to get in contact with people? What are the best channels of communication for the people that you want to contact?

#### **Tools:**

[www.facebook.com](http://www.facebook.com)

[www.myspace.com](http://www.myspace.com)

Email and Email lists

# 16. SOMEBODY SHOULD SET THE TITLE FOR THIS CHAPTER!

This course is aimed at young people motivated by an interest in music. The goal is to create a collaborative online Radio using a Wordpress blog as a base. It uses all free software tools so that young people can replicate the skills at home without having to pay for software.

Week	Activity	Skills
Week 1	Tasks: Choose a name for your show Set up a Wordpress account / blog Write a script including information on your music show put it on the blog Upload and picture of your to your show page	Wordpress / blogging skills Writing skills
Week 2	Tasks: Practice reading the intro to your show for recordings Set up equipment for recording introduction Record Introduction and Save	Getting confidence in your voice Using recording equipment Using Audio editing software to record
Week 3	Choose background music for Introduction Mix voice audio and Background music  Upload mix to Internet host ( archive.org)  Link audio file on Wordpress blog	Getting confidence in your voice Using Audio editing software to mix multitracks Using Archive.org  Using Wordpress for audio
Week 4	Choose three music tracks for Advert Write text for advert Record Voice and Save Create audio project with 10 sec sections of music with transitions Mix voice audio and Background music Save as mp3 and upload to Internet and Blog	As Week 2 and 3 combined
Week 5	Set up CD decks and microphone to mixer and speakers connect to PC for recordings Set right levels for music mix recording Equalise levels in Audio editing program Reverse any swearing in Audio Editing program	Programming music Using filters in Audio Editing software
Week 6	Promote show via social networking sites  Create a strategy Targeting certain audiences Set goals for outreach	Using social networking sites Strategies skills  Group work skills
Week 7	Recap on Promoting show via social networking sites	

	Record interview with musician, sports person, youth worker	Question planning
Week 8	Edit Interview and upload to Internet / Blog	Editing with voice recording to remove repeated or less relevant content

# 17. HELLO THIS IS COSMO!!

short summary of this chapter

## FIRST HEADING

