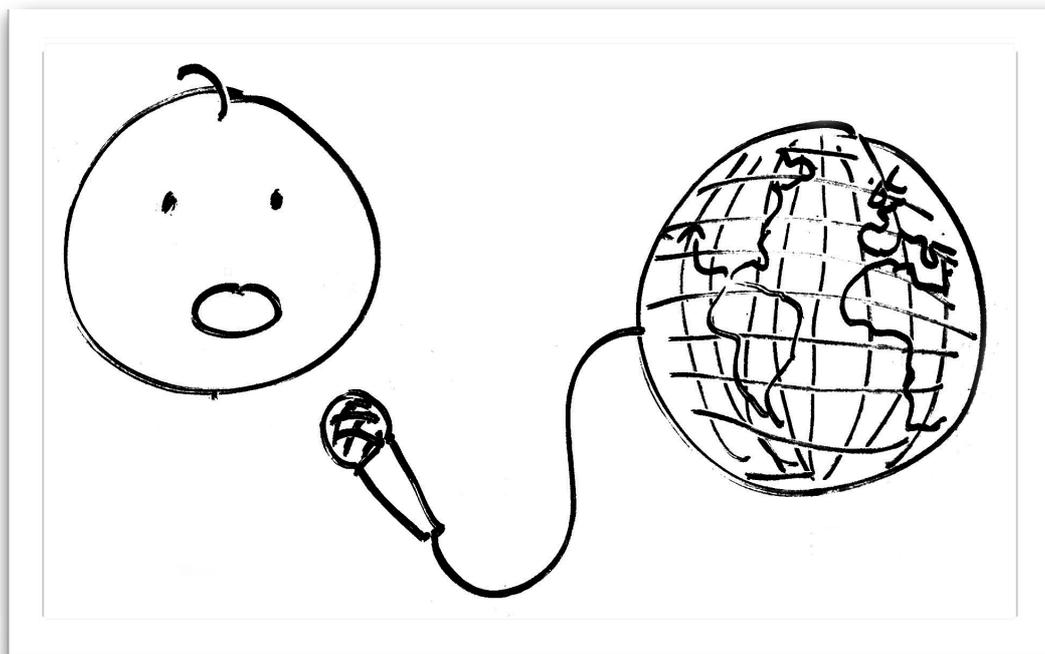


Podcasting Unleashed:

Turning your passion into an audio podcast



**Andy White
Draft 5 (July 2010)**

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This book is under construction, it is incomplete. Author's notes appear in yellow like this:

This is an author's note...

The more yellow you see, the more incomplete the section is :)

Dedication

For my wife, Sarah and my children, Trilby & Bailey

Foreword

Looking for someone to write this later ;-)

Preface

If you have a passion, and you want to create, or are creating your own podcast, whether for business or pleasure, you should read this book. If you produce podcasts for others, either as a business or for the sheer joy of it, then I freely give away my knowledge for what it's worth, safe in my unerring, selfish belief that any loaves I cast upon the waters will come back buttered, and in some cases even packed with tuna, sweet corn, lettuce and a smidgin of low calorie mayonnaise.

What I aim to do in this book is get you thinking in such a way, that you will be able to work out the best way forward in most situations; to teach you how to fish, as it were, rather than give you the proverbial fish.

How to use this book

This book is arranged in four sections. The first section is designed to get you up and running quickly. If you've never before made a podcast, start here, in fact go straight to the *Podcast in 30 minutes* chapter and have a go at making your first podcast.

The second section is intended to fill in the gaps and get you up to speed with producing a full blown, proper podcast series. Feel free to either read this sequentially or dip into it as a reference from time to time.

The third section covers the important subject of promotion, getting your podcast known. As Dave Jackson [\cite{website:schoolofpodcasting}](http://website:schoolofpodcasting) said, "If content is king, then promotion is queen."

The final section covers a few ideas, loose ends and musings from yours truly that wouldn't really fit anywhere else. Feel free to treat these as a collection of essays around the podcasting arena, to perhaps, evoke a few ideas.

I've put some useful checklists, work flows and other list-like nuggets of information in the appendices.

Enjoy! Be inspired! Be encouraged! Be successful!

Acknowledgments

For the initial inspiration to start podcasting I raise a glass to four gentlemen in particular, Leo Laporte, Jason Van Orden, Benjamin Grundy and Cliff Ravenscraft, masters of the mic and purveyors of entertainment and knowledge.

This book was written with the help and comments from a group of enthusiastic people who willingly gave up their time and energy. I would particularly like to thank Ann Lewis, Bob Patterson, Bryan Foster, Carlos Gabriel Hasbun Comandari, Deborah Richmond, Duncan Brodie, Greg Dickson Jimmy Yukka, Julie Stanford, Mark Bellinger, Matt Watkins, Michael Cunningham, Rob Watson, Rowan Gregson, Sam Law, Steve Davis and Steve Nicholas for their valued feedback and encouragement.

Heartfelt appreciation goes to Darren Fell, Ed Carr and Jeremy Spiller - fellow business friends, mentors and entrepreneurial journey companions.

Thanks to the Cafe Delice in Brighton, where I spent many a long hour with a coffee pouring my heart into this book, and to the splendid young women who run the place for making me feel welcome, surprising me with free croissants and for improving an already very pleasant view. Also thanks to the Red Roaster in Brighton where I spent other long hours writing. This coffee shop has the best coffee and coolest music in Brighton.

Special thanks go to Ian Ozsvald for his ideas, no-nonsense style of support and inspiration, and for being a willing accountability partner during the creation of this book.

Finally I would like to thank my long suffering wife and soulmate, Sarah, for her patience while I kept disappearing when I should have been helping around the house and optimising the children. I salute Sarah, and the spouses of geeks the world over.

About the author



Andy White studied Zoology and Radiography, and continued to work as a postman, a programmer, a web designer, a waiter and an IT consultant, rather than as a zoologist or radiographer. Interests include science and technology, philosophy, astronomy, martial arts, the paranormal and natural history. When he was a kid he used to spend a long time on his belly, either studying ants or drawing internal

organs. Things that make him laugh include marching bands, Kryten from Red Dwarf, Marge Simpson's hair, and East European folk songs that suddenly stop for everyone to shout "Oy!", and then carry on again.

Andy has been regularly producing podcasts since 2006, for clients large and small, including Internet Marketing which is regularly in the featured list under the Management and Marketing categories in iTunes. The local people in Brighton often call him the "Podfather", even though he keeps telling them that the real Podfather is Adam Curry and if they don't stop it, Adam will probably come down to Brighton and beat him up. He much prefers to be called "Doctor Pod" because when he was younger, he wanted to be a doctor and he now sees himself as a kind of doctor for people who need help with podcasting and such things.

As well as writing, producing, presenting and marketing podcasts, Andy is also a podcasting coach, and can name every part of the anatomy of a spider.

You can reach Andy by email at andy@andywhite.org, and find him on Twitter at <http://twitter.com/doctorpod>.

Part 1. The basics. Getting up and running quickly

Setting up your podcasting toolbox

When I was a kid, I remember when the TV repair man used to come to our house. Sadly, this was a frequent occurrence¹. I was always fascinated when he opened his big black case full of “stuff”. I used to gawp in awe at the rows of neatly arranged bits and bobs and wonder what they were all for. He wielded each tool with skill and knowledge, knowing exactly which one to use for the job at hand.

Like the TV repair man, you need to build up a toolbox of tools, get to know each one, know which ones you need for what, and learn to use them.

In this chapter, I intend to introduce you to the tools you'll need for podcasting. We'll get into process and workflows in the next chapter because you'll need these tools set up first. Some of the tools will be physical things, others will be software, and others will be knowledge, stuff you need to know or be aware of. Although much of the software is free, some items may come at a price but the investment at this stage should not be more than about £200.

If you're a regular listener to podcasts, you may find you have some of these tools in place already.

This is just a start; it's the minimum set to get us started - we will add some more tools later on as we progress through the book.

Your Computer - The main Tool

Your computer is so essential, being used for just about every technical aspect of podcast production, that it's almost the box itself. I recall being told by

¹ Yes, sadly I'm so old that I grew up in the days when it was *worth* fixing a TV

somebody years ago that to assume makes an ass out of you and me², nevertheless, I'm going to jolly well go ahead and make some. First, I'll assume you have a reasonable familiarity and experience with computers, you are comfortable with the computer environment, you can install and uninstall programs with relative ease. If you're a PC user, you've perhaps used Notepad, or if you're a Mac person, TextEdit, if you're an uber cool Linux dude, you may even have Vi, Vim or Emacs under your belt. I'm also going to assume that if you're a Linux user, you are comfortable venturing away from the desktop and using the command line and the various package managers that come bundled with it. You know which hole a microphone and a pair of headphones would slot into and you are happy using a browser and surfing the web. These things are important because many of more technical things we do as podcasters rely on this basic type of knowledge.

In this book, we will consider all three main types of operating system, Windows, Macintosh and Linux. I started my podcast production career using a PC running Windows XP Professional. Quite recently I have become a Mac fanboy, and now use a MacBook running Mac OS X Leopard. In an earlier life I did a lot with Red Hat Linux, then Ubuntu although it didn't include producing podcasts. The point I'm trying to make is that it doesn't matter which operating system you use - and I would encourage you to stick to what you are used to. It is entirely possible to produce podcasts on all three platforms. If you have a modern computer, you've probably already got most of what you need with computing hardware - so you can use this section more as a checklist.

What should I look for in a computer?

When considering a computer for podcasting work there are a few things to think about:

Memory

The more memory a computer has, the more things it can do at once. A symptom of insufficient memory is programs hanging and becoming unresponsive. It is quite common to have several programs open at a time when dealing with podcast production. My Windows PC has 1GB of memory and, as far as I can recall, I never had a problem. My MacBook sports 2GB of

² Ass-u-me, do you get it? I assumed you would.

memory it has a similarly adequate reputation. As a guide, I would be cautious of going below 1GB on any platform.

CPU

The speed of the CPU (Central Processing Unit or Chip) is measured in MHz or GHz and determines the speed that the computer carries out instructions. One of the most CPU intensive operations is encoding to MP3. You may find this taking a very long time if you have a slow CPU. As a rule, try to avoid anything under 1GHz.

Disk Capacity

Podcasting takes up a lot of disk space over time - it tends to slowly build up and catch you out. A typical storage requirement per podcast project could be anywhere between 20MB to 1.5GB per episode depending on the complexity of your show structure, the file organisation and which software you are using. I have five episodes of our Internet Marketing podcast on my Macbook at the moment, taking up 5.7GB. Disks nowadays tend to be quite large but go for the maximum you can afford or be prepared to supplement using an external USB or firewire drive.

A built in microphone or socket

Most modern computers come with a 3.5 mm microphone and headphone jack - those little holes with microphone and headphone symbols next to them. Most modern laptops have a built in microphone although the quality can vary greatly.

USB Socket

This is the horizontal, rectangular slot about 10 mm wide. There can be more than one of these positioned in more than one place. USB sockets are useful if you decide to use a USB microphone and are a common way of connecting other external devices such as digital recorders. To be honest, it's rare these days to find a machine without USB ports.

A DVD RW

A built in writable DVD drive can be very useful for archiving³ files and creating compilations of podcast shows to send out.

³ See the *Some thoughts on backups and archives* chapter.

Desktop, Laptop or Netbook?

People often ask if it matters what type of computer they use for podcasting. My usual response is that it doesn't as long as the previously mentioned attributes are fulfilled. One thing I would watch out for though is screen size. Some of the programs you will use are easier to use on bigger screens. The other factor to be aware of is CPU speed. Many of the smaller laptops and netbooks have low powered CPUs which may struggle with some jobs - these are probably best avoided for podcast production. Finally, remember the disk space requirement.

In conclusion stick to your preferred platform but be aware of the other options with hardware and operating systems.

A Microphone (if it's not already built in)

Because we are in a sort of “getting started quickly” mode in this chapter, I'm not going to dwell too much on the ins and outs of microphones. We'll take a closer look at these later. Rather, I shall lead you gently into the world of microphones and concentrate on just one or two to get you started. Also, I don't want you to spend lots of money on microphones at this stage. Indeed, you may even joyously skip this section if your computer has a decent built-in microphone.

Lets quickly familiarise ourselves with the role of the microphone. Its job is to convert the analogue sound waves from our voice into an analogue or digital signal that we can record. Forgive me for using the technical “analogue” and “digital” words - we will shortly become aware of what they mean.

There are two main types of microphone, dynamic and condenser. Dynamic microphones have a lightweight diaphragm connected to a coil of wire in a magnetic field. When the sound waves from your voice vibrate the diaphragm, and hence the coil, an electric current is induced which oscillates back and forth in time to the vibrations. Thus a low power signal is created. The output from dynamic microphones is usually very small so a preamplifier is sometimes required before anything useful can be done with the signal.

Condenser microphones, on the other hand, use a capacitor. The front flat plate of this capacitor forms the diaphragm. When the sound waves cause this to vibrate, the capacitance oscillates up and down in time to the sound wave, and a signal is produced. Condenser microphones require a voltage to be applied across the capacitor to work and this usually requires either an internal battery, or an external power supply - often referred to as phantom power.

Microphones can have one of three types of connectors, 3.5 mm jack, XLR or USB. We're all familiar with the 3.5 mm jack, it's that little plug that you have on the end of your Walkman or MP3 player headphones. Microphones with this connector will plug straight into your computer. Professional microphones have XLR connectors. These are much larger plugs with three pins which have to plug into an adapter, mixer or some sort of interface before they can be used with a computer. Microphones with these two types of connector produce an analogue signal. This means the signal is composed of an electric current and voltage, oscillating rapidly to and fro in time to the original sound wave.

USB microphones however, convert the sound wave into a digital signal internally, and feed this digital signal as a stream of zeros and ones into the computer via a USB connector.

So, assuming we have no built in microphone in our computer, what sort of external mic should we start with for our toolbox? If you need to buy a mic I would recommend, at this early stage to go for either a cheap dynamic mic with a 3.5 mm connector, or a USB mic such as the Blue Snowball or Samson C01U, and to avoid getting a mic with an XLR connector unless you want to invest in an XLR to USB interface up front. See the list of recommended microphones in the *Recommended microphones* Appendix.

Internet Access

Podcasting, by its very nature, requires us to publish files to the Internet - so a good connection is vital. ADSL (Asynchronous Digital Subscriber Line) broadband is becoming common and cheap these days so finding a good supplier should not be a problem. The upstream speed is particularly important when podcasting because we spend a lot of time uploading

episodes. In classic ADSL, the upstream is fixed at 256 KBits/sec but with the arrival of ADSL2, we are starting to see upstream speeds at around 1.4 MBits/sec and downstream speeds, theoretically of up to 24 MBits/sec.

A Hosting Account

Now let us take a look at two tools that are so intertwined they're almost the same tool, a hosting account and an FTP program.

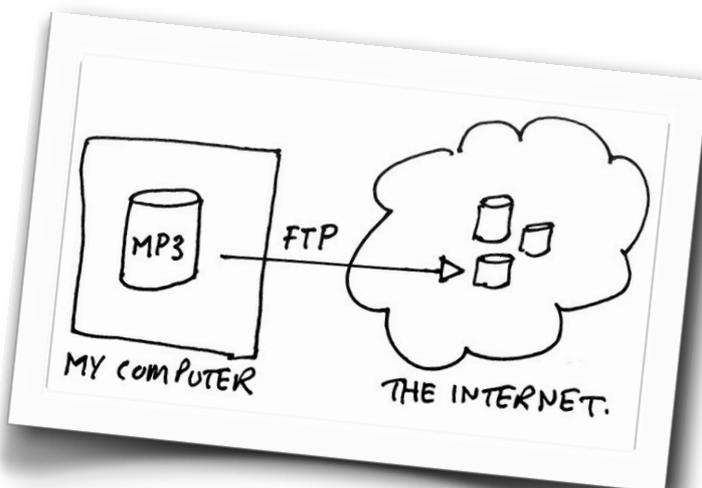
Imagine you have some files that you want the world to have access to. If you kept them on your personal computer, then unless you did some clever stuff with routers and firewalls, no one could see them⁴. The idea of hosting refers to a computer, somewhere on the Internet, being a place for your files to live, such that they are accessible by anyone. In other words, the computer, or server as they are often called, "hosts" your files on your behalf, and makes them publicly accessible. So a hosting account is where your files, blog, website or podcasting site live if you don't have your own server (which most folks don't).

There are literally thousands of companies out there who offer hosting. Far too many to mention. The usual deal is that you get access to part of a server, but for more money you can have a whole server just to yourself. We'll drill into this topic of hosting later, and there's a list of hosting companies in the appendices.

⁴ That's probably a very good thing from a security standpoint.

An FTP Program

We now need a simple way of copying files from our computer to our hosting account. To do this we use a protocol called FTP which stands for File Transfer Protocol. There are a number of free software programs available that make FTP easy with a simple drag and drop interface. Here are a few in no particular order:



- ▶ **FileZilla** (Windows and Mac) This is my favorite - <http://filezilla-project.org> (free);
- ▶ **Cyberduck** (Mac only) - <http://cyberduck.ch> (free);
- ▶ **Transmit** (Mac only) - <http://www.panic.com/transmit> is my chosen weapon (about \$30)
- ▶ **Command line FTP** (all platforms) If you're a geek, there's always the command prompt on Windows, Mac and Linux;
- ▶ **Fire FTP Firefox addon** (all platforms) - <https://addons.mozilla.org/en-US/firefox/addon/684> this free FTP program runs in the Firefox browser.

When you set up a hosting account, you'll be given the following information to put into your FTP program:

- ▶ **An FTP user name**
- ▶ **An FTP password**
- ▶ **A host domain name** - This is the name or domain of the actual host machine. It does not necessarily match the public domain name that you type into your browser to see your files. Quite often, the host domain name will begin with ftp., for example ftp.example.com. This notion of the server name and the public URL being different throws a lot of people.
- ▶ **A directory path** to copy your files to - this is the directory on the host machine in which to put your files such that they are publicly visible on the public domain name

- ▶ A **public domain name** - A domain name is that string you enter into your browser that usually ends in *.com*, or *.co.uk*, or *.net*. You'll usually be told a domain name when you sign up for a hosting account. It refers to where you need to point your browser to in order to see any web pages you upload to your account. Remember, the public domain name and the host domain name can often be different, for example, the public domain name could be *www.example.com*, and the host domain name could be *ftp.example.com* as mentioned above.

Once you put these into your FTP program, it should remember them, making future access to your hosting account a simple drag and drop affair.

On a quick footnote, some hosting providers give you an FTP program that runs in your browser, negating the need for a separate FTP program. In this case you usually just visit a special page on your provider's website to access it.

A text editor

A text editor you say, what possible use could the lowly text editor have? OK I'll come clean, you'll only really use it in these early days while you ascend the obligatory learning curve. You'll be using a text editor to create the RSS feed file and web page. Do not confuse a text editor with a word processor such as Microsoft Word. These do not write plain text. Instead they write in a proprietary binary format that is useless for our needs.

Lets look at a few examples for each of the main operating systems:

- ▶ Notepad (Windows only) This comes as standard with Windows and is perfectly adequate for our needs.
- ▶ Textedit (Mac only) This comes included with the Mac operating system.
- ▶ TextMate (Mac only) I love this editor. It's not free at €49, but it's the best editor I've ever used.
- ▶ Vi and Vim (Linux, Windows). If you use these, you're probably a power user and just frolicking in this chapter for an amusing diversion.
- ▶ Emacs (Linux only) Same here. I've never understood Emacs users. They seem to be a very religious group that probably have strange initiation

ceremonies involving dark, windy wooded hills, ceremonial goat horns and nubile virgins. Emacs is an amazing editor though apparently.

An audio recorder, editor and mixer

Audacity

Audacity is a free, software audio recorder and file editor that runs on Windows, Mac and Linux. You will need to edit your audio files if you want to remove those annoying *ums* and *ahs*, long silences and that embarrassing bit where you unexpectedly broke wind 3 minutes and 16 seconds into the interview.

We will be using Audacity for:

- ▶ recording
- ▶ basic sound editing
- ▶ basic sound processing
- ▶ mixing
- ▶ encoding to MP3

You can find Audacity at <http://audacity.sourceforge.net>. One thing to remember is to also get the LAME MP3 encoder so that you can encode your podcasts to MP3. Go to the help section at <http://audacity.sourceforge.net/help/faq?s=install&i=lame-mp3> for instructions on how to download and install this. One little tip for Mac users, when the LAME library is installed on your system, it claims to install the file in the folder `/usr/local/lib`, but it actually puts it in the folder `/usr/local/lib/audacity`. The first time you try to save a file as an MP3 in Audacity, it will ask you to locate the LAME library file, remember to drill down to the *audacity* folder at this time.

I really like Audacity, for a free program it has a ton of features. Be aware though, that it can have some stability issues and in the past I have lost work due to sudden crashes. I would advise regular saving to avoid this - I have a strip of paper attached to my PC monitor which states, *In Audacity - Save every minute!*

Myna

Myna is an online, browser based sound recorder, editor and mixer available at <http://aviary.com/tools/myna>.

```
TODO expand - play with - looks good
```

An audio file tag editor

You'll need this to write important information into your podcast files such as the title, podcast name, artist and so on.

If you're using Windows or Mac, get iTunes which covers, in addition to its arsenal of other features, audio file tagging and podcast receiving. iTunes runs on the Windows and Mac platforms and can be freely downloaded from Apple at <http://www.apple.com/itunes/download>.

If you're using Linux take a look at:

- ▶ EasyTAG - <http://easytag.sourceforge.net>
- ▶ eyeD3 a command line utility - <http://eyed3.nicfit.net>

A podcast receiver/catcher

When we create podcast feeds, they need to be tested using a podcast receiver or podcatcher.

If you're on Windows or Mac, you've probably taken my advice and installed iTunes. If for some reason you don't want to use iTunes or you're running on Linux, take a look at:

- ▶ Miro (all platforms) - <http://www.getmiro.com>, or
- ▶ Juice (all platforms) - <http://juicereceiver.sourceforge.net>, or
- ▶ gPodder (Linux) - <http://gpodder.org>

Conclusion

You now have your toolbox, or at least your first incarnation of it set up. Lets see what's in your metaphorical big black case full of stuff:

- ▶ Computer
- ▶ Microphone (unless it's built into the computer)
- ▶ Internet access
- ▶ Hosting account
- ▶ FTP program
- ▶ Text editor
- ▶ Audio file recorder, editor and mixer
- ▶ Audio file tag editor (this might be iTunes)
- ▶ Podcast receiver (this also might be iTunes)

You now have enough tools to continue to the next step - lets get into the workflow of making your first podcast.

A Podcast in 15 Minutes

So now we have our toolbox, let us dive immediately into the creation of a true podcast. This will be a podcast according to the official definition, and it will be the most basic podcast we could possibly make, the simplest thing that could possibly work, just a few spoken words. It will also be “quick and dirty”; not the best nor most efficient workflow. I want to show you the ropes. Also, I want to send you a very important message: Podcasting does *not* have to be complicated.

Podcasting does not have to be complicated

One quick thought before we start. There are one or two tools online that make podcasting a no-brainer; take a look at Posterous for example in the *Some no brainer podcasting tools* chapter. You could take this route but we want to learn the ropes don't we?

Let us continue.

Make a folder

Lets ensure we're getting into good habits. Create a folder somewhere on your machine just for this project - call it what you like. Put any files you create into this folder.

Write a short script

Using your text editor, open a text file and write what you're going to say; something very short and very simple. A single sentence will be fine. Call the file something like *script.txt*. Take no more than 1 minute. It doesn't matter what the sentence is; it can be as ridiculous or as way out as you want.

You're probably wondering why I'm getting you to write a single sentence in a text editor when you could just remember and say it. Trust me, there's method in my madness.

Record your message

If you have a separate microphone, plug it in now. Fire up Audacity. You'll first have to tell Audacity to use the correct microphone. On the Mac its Preferences → Audio IO tab → Recording, Device. If you're using the built in microphone select "Built-in Microphone", if it's a 3.5 mm plug in, it will be "Built-in Input", and if you're using a USB mic, there should be a fairly obvious option, probably named after the make of your mic.

Now hit the red record button and start talking. Hit the square stop button when you've finished. Hit the triangular play button to listen back. Don't worry if you make some mistakes - in fact this will be good - you'll see why later. Save the project in your folder, File → Save Project. You'll need to enter a name for your project, call it *show001*. When you save, you'll see a file called *show001.aup* and a folder called *show001_data* appear in your folder, courtesy of Audacity.

Save your recording as an MP3 file

Now select File → Export As MP3. You'll be offered a box to enter a file path to your folder and a name. The name will default to the name of your project, *show001.mp3*. If this is the first time you've ever tried to export to an MP3 in Audacity, you'll be asked to locate the LAME library file. Once you've done this you won't be asked again, Audacity will remember. You'll also be offered

a little form to type in such things as a title, artist and description. Fill these in if you want, I'll explain what this is all about later.

Write Feed File

TODO This may well end up as a downloadable file from the book website

In the following pages, whenever you see *my-hosting-domain.com*, substitute the public domain name of your hosting account.

Copy and paste the following code on the next page into a file called *feed.xml*, then replace the values in curly braces (including the curly braces) with appropriate values for you:

```

<?xml version="1.0"?>
  <rss version="2.0">
    <channel>
      <title>{Podcast title}</title>
      <link>http://{www.any-domain-that-represents-me.com}</link>
      <description>
        {Brief description of podcast series
      </description>
      <language>en-us</language>
      <copyright>All rights reserved</copyright>
      <lastBuildDate>
        {Wed, 04 Feb 2009 12:03:32 GMT
      </lastBuildDate>
      <generator></generator>
      <webMaster>{me@mydomain.com}</webMaster>
      <ttl>1</ttl>

      <item>
        <title>{First episode title}</title>
        <description>
          {Brief description of first episode
        </description>
        <pubDate>
          {Thu, 31 Jan 2008 12:00:00 GMT
        </pubDate>
        <enclosure
          url="http://{my-hosting-domain.com/show001.mp3"
          length="{use numbers only - in bytes - e.g. 4523931"
          type="audio/mpeg" />
      </item>
    </channel>
  </rss>

```

Take note of those date formats - you must stick religiously to them otherwise your feed will be invalid. Note the comma after the weekday name, and if the month day is less than 10, left pad it with zero i.e. 09, and ensure the weekday and month day go together to make a *real* date. Use today's date for both of them. You'll also need to find the size of your .mp3 file in bytes for one of the values. In Windows, right click on the file and select Properties. A small panel will appear and one of the parameters will be *Size on disk*, use this but remove the commas. On the Mac, select the file in finder, then press Cmd I. A panel will appear. Look for Size and you'll see the size in bytes in

brackets - again don't include the commas. In Linux, the `ls -l` command will give you a list of files in the local directory, complete with files size in bytes, just what you want.

Create a web page

TODO This may well end up as a downloadable file from the book website

Copy and paste the following code into a file called `index.html`, then replace the values in curly braces (including the curly braces) with appropriate values for you:

```
<html>
  <head>
    <title>{Podcast title}</title>
  </head>

  <body>
    <h1>{Podcast title}</h1>
    <p>{Brief description of podcast series}</p>
    <h2>{First episode title}</h2>
    <p>{Brief description of first episode}</p>
    <p><a href="http://{my-hosting-domain.com/show001.mp3"
      target="_blank">Play now</a></p>
  </body>
</html>
```

FTP 3 files to the server

Using your FTP program, copy your `show001.mp3`, `index.html` and `feed.xml` files to your chosen host.

Test it

Using you browser, go to your web page. You should see a simple web page with a description and a link to your podcast. Clicking on the link should, after a short pause, play your podcast in a separate browser window.

TODO picture of webpage and podcatcher

Subscribe to your feed in your podcatcher, the feed address will be `http://my-hosting-domain.com/feed.xml`. If you're using iTunes it's Advanced → Subscribe to podcast..., then type in your feed URL. It should immediately download your podcast so you can play it locally.

At this stage you will either be laughing or crying. If you're laughing, well done! Time to put the kettle on and skip the last section. If you're crying fantastic! You can now learn all about trouble shooting in the podcasting world - read on.

What could possibly go wrong?!

Well, like any multi-step process, there are plenty of places where things can go wrong. Please adopt your best grumpy face and let's break it down into symptoms:

Audacity didn't recording anything

If you didn't see a crisp blue waveform appearing before you while you spoke there are a few possible causes:

- ▶ Your microphone wasn't plugged in;
- ▶ The correct microphone was not selected;
- ▶ The microphone volume (top left) was turned too low or completely off.

The simple web page doesn't come up in my browser

You typed into your browser `http://my-hosting-domain.com` but no page came up, you might even have seen a *404 page not found* error. Possible causes might be:

- ▶ You placed the *index.html* file in the wrong folder on the host server;
- ▶ You did not name the file *index.html*.

The file doesn't play when I click on the Play now link

You may have seen the 404 error again. Possible causes:

- ▶ You placed the MP3 file in the wrong folder on the host server;
- ▶ You did not name the MP3 file *show001.mp3*.

Understanding what we did

What we just did was the simplest possible way to produce a podcast. We left out a number of very important things for the sake of simplicity. But I hope it gave you an idea of what is involved. Now lets dig a little deeper into what we did, why, and how we can do it better. The goal is to eventually lead to your own version of the ideal podcast producing process. Lets get started.

Writing a script & planning

What was that phrase? “Failing to plan is planning to fail”. Yes, I find it irritating too. It's annoyingly true, especially with something like podcasting. I asked you to write your script down because I wanted to get you into the habit of planning. Now I'm not suggesting you write down word for word what you're going to say, but at least write a list of topics you want to cover. Of course, there is a lot more to planning than just writing a script. If you're producing a podcast series you'll need to plan a bucket load of stuff. Fear not though, if you're systematic it's quite straight forward. I'll show you how in the *Planning* chapter.

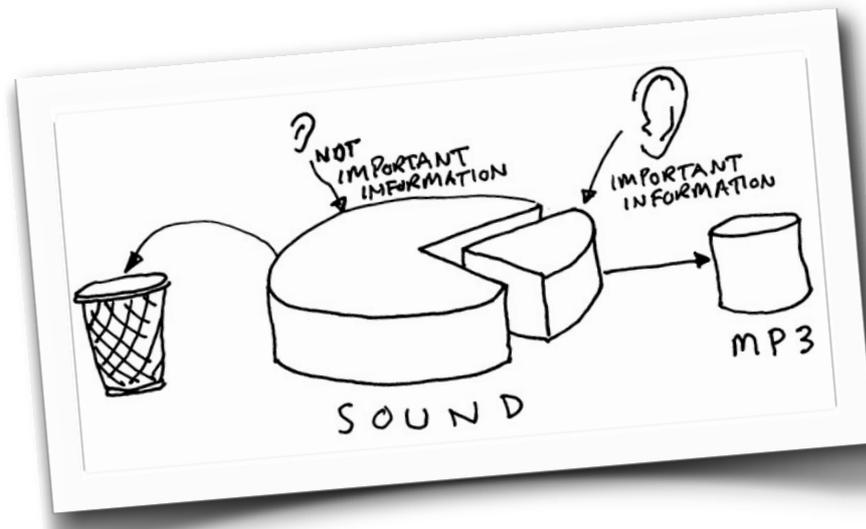
Audio Recording

It's a big subject, audio recording. It's more than just saying something in front of a mic having pressed something that was probably large, red and round. There are many things to consider such as types of microphone, how to use a microphone, the best sort of mic for the job, where you are recording, your recording environment, recording software and recording hardware. We'll delve into this vast subject in the *Recording Audio* chapter although don't feel intimidated, recording does not have to be complicated.

Encoding - what is MP3?

When we recorded our voice, Audacity stored it in a way that preserved *all* the audio information in it. The trouble is, audio files containing *all* the original information tend to be rather, how can I put it delicately, on the well-padded side. If we're going to put audio files up on the web for folks to download, they need to be smaller, a lot smaller.

We told Audacity to export our recording in MP3 format. MP3 stands for



MPEG Level 3, and is a way of making sound files smaller while preserving great sound quality. If you were to record 1 minute of stereo sound with typical settings, the resulting file would be about 10 MB if it were a *.wav* file, a format that contain all the

original information. The same recording as a *.mp3* would be about 1 MB, a tenth of the size, yet only audio purists would be able to tell the difference in the sound when played back.

MP3 achieves small file size by throwing away unimportant information to the ear

This process of rewriting a media file in a way that makes it smaller while preserving quality is known as “encoding”.

Setup feed - what is RSS?

I remember back in 2003 reading an article in one of the BBC publications about a new technology that was going to revolutionise the web. *Rich Site Summary* was the name they used; or RSS for short. These days it tends to be called *Really Simple Syndication*.

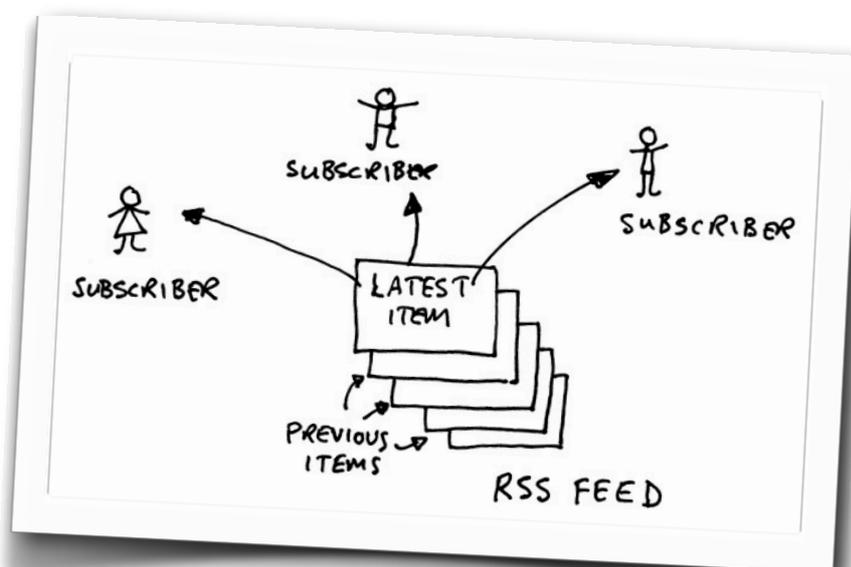
I recall not paying that much attention to it. I didn't quite get it.

Today, I get the distinct impression that a lot of us still don't get RSS. This is a shame because RSS is truly powerful. The basic idea is this:

Instead of going out to your favourite websites, searching for new content, subscribe to them, and let them come to you when they change.

RSS is a key component of podcasts, it's what turns a group of audio files into a true podcast series. RSS allows our listeners to subscribe to our podcast series, and then automatically get new episodes when we publish them. Don't worry, I'll explain how this works later in the book.

An RSS feed makes a group of separate audio files into a podcast series



We manually wrote our RSS feed file, but in the *A podcast in 15 minutes* chapter, I'll show you a much better way of automating this using WordPress the open source blogging and CMS software. We'll cover this later.

The benefits of a podcast home web site

Like people, podcasts like to have a home. It's good to have a central, definitive place on the Internet where our podcast lives. We created a simple, no frills web page to display our single episode of our imaginary podcast series. To allow visitors to play our podcast, we simply linked to the MP3 file, but there's a much prettier way to do all this courtesy of WordPress.

Why testing is so important

There's a wonderful, profound and, I have to admit, slightly odd, saying in the agile software development world - "If a feature doesn't have a test, then

it doesn't exist". The phrase always makes my brain go into some weird kind of infinite loop, but I think I know the message it is trying to convey. If a feature hasn't been tested, then there's no way anybody knows if it works for sure, so it may as well not exist. This is so true for podcasts.....

Expand...

Part 2. The details. Building on what you've learned

Planning: What am I going to say?

In this chapter, we'll talk about how to plan and design your podcast to convey the right feelings and messages to your listeners. Let me start off with something very important.

What's your passion?

I'm going to talk about the most crucial thing you need if you want to produce a podcast or indeed other forms of online content. Passion. It's the starting point of your planning. You've probably heard the phrase, "Content is king", well your passion plays a very big role in coming up with that content and powering your podcast.

Podcasting your passion is 10,000 times easier than podcasting anything else

Now I know the you-gotta-have-a-passion thing has been done to death, but trust me, it's very important. Your passion is like an energy boiling up inside of you - yearning for expression. It's a story, an inspiration for many unsuspecting others, coiled like a spring, potentialised and ready to be unleashed through a podcast series.

I'm going to make a bold statement, but I believe it to be true. Podcasting your passion is 10,000 times easier than podcasting anything else.

If you truly want your content to be king, it's a very good idea to develop it around your passion.

Do you know your passion?

I do not think this is necessarily a dumb question. There were times in my life when I wasn't sure what my passion was. I knew something made me tick, but I couldn't quite put my finger on it. Your passion can sometimes be like

an old friend or significant other, unappreciated, always with you, but unnoticed due to its proximity and familiarity. Yet it quietly reminds you throughout the day, a thought here, an amazing feeling there, or a profound reverie of ideas during some inane, repetitive task.

If it's not obvious to you, do a little self research. What do you talk about a lot? What do you bore your significant other to death with? Ask others, your friends and colleagues. They may well know you better than you do.

Where does passion fit in when podcasting for business?

If you're the only one in your business, are you passionate about what you do? If there are others in your business, how many can you find that are

passionate about what the business stands for? On this note, I think it's very important to know *exactly* what your business is about. What business are

Consider the true essence of your business when planning a business podcast

you in? What is your vision? Can you crystallise it into a single statement? They should all allude to your passion. I know I'm starting to sound like a life coach, but in terms of doing a podcast for your business this is critical.

The Starbucks Coffee Conversations podcast, released in August 2006, received many poor reviews and lasted for only 3 episodes. The podcast focused on coffee and coffee production. The problem was, the Starbucks business is not really about coffee, it's more about atmosphere and socialising. People do not walk into Starbucks because they're interested in coffee, they walk in for the way it makes them feel, OK and maybe they

Giovanni sings Elvis

One morning, I was in one of my favourite cafes in Brighton. The owner, Giovanni, was sitting there playing a guitar and singing away.

It was an Elvis number. He was really quite good.

I immediately suggested to him we record it and put it on the web - I didn't even know which podcast it would go on at first. I just had the urge to record. Within 30 minutes it was online. This only happened because I had a passion for Brighton, and presenting stories about its people. When you have a passion - the job just gets done.

like the coffee too. Perhaps the people would have been a better subject for the podcast. This wasn't the whole reason the podcast flopped, but the point I'm trying to make is - know the true essence of your business - which hopefully should match your passion - which is a good basis for your podcast.

Write a desired outcome statement

Writing is a very powerful thing, and there is a kind of magic in writing down the outcomes you want from anything.⁵

Think about your audience, the results you want to achieve in the mind of the listener, and the actions you want them to take. I would recommend a simple, written outcome sheet. Nothing too fancy. Just a list of bullet points perhaps divided into:

- ▶ Who is the audience?
- ▶ Thoughts I want the audience to have, and
- ▶ Actions I want the audience to take

When thinking about the audience, try to understand their outlook, their perspective, their way of thinking. This is especially useful if the audience is segmented. I was working recently with a client who's podcast was directed at helping graduates establish suitable careers. We quickly realised that graduates segment into four categories, each of which has a different perspective about their ability to gain suitable employment. This helped us to structure the shows and gave us insights into the best content.

If your podcast is to promote a business, the desired outcomes might be to increase visits to the website, and calls to your telephone number. If you're a not for profit, the outcomes might be to increase awareness of a certain issue, maybe through interviews or perhaps through stories of people's experiences. If you're an enthusiast in a particular area, maybe your desired outcomes would be to stimulate and expand the experiences of other enthusiasts. Try to get into the habit of thinking in big, bold, declarative statements. Don't worry too much at this stage about the details of the show. If the outcome statement

⁵ It's even more power reading them out loud, but I suggest you do this in private.

goes over a page, it's probably too long or too detailed. Remember - be bold and declarative; don't succumb to detailitis.

With some commercial podcasts, don't be too surprised if business promotion isn't the main driver. We produce a podcast for the owner of a garage. His desired outcomes were mainly to entertain and inform listeners on motoring issues, and to pass on knowledge to future generations of motor technicians. Driving business to his garage was considered a very nice side effect but not the primary reason for the show.

It's worth taking a closer look at your desired audience. In some ways, your passion will dictate the audience, they'll probably share it. This is particularly true in non-commercial podcasting. If you are planning a commercial podcast, remember that getting the precise audience you want is not an exact science, you have to design your podcast to attract them.

Designing a show structure

OK. Assuming we have our passion, and we have done our initial outcome analysis which we can keep in the back of our mind, let's get down to the nitty gritty. I'm going to show you how to come up with a template for your episodes, a show structure.

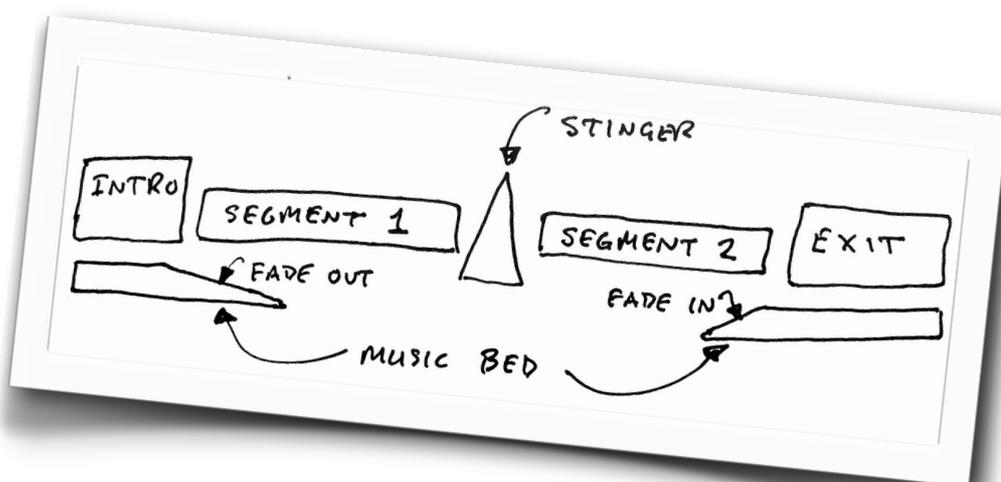
Understanding Structural Components

To plan your podcast, it's a good idea to gain an insight into the typical podcast structure. Just as a builder is familiar with bricks,

mortar and steel work,

it's good to have an understanding of the main

structural components used in podcasts. There are only a few of these, and



once you have a good grasp of them, building a common structure for your episodes will flow easily.

Intro & Exit

These fairly obvious components are immensely important. In most cases, the intro and exit of a podcast series remain the same throughout the series. This is great, because you produce them once, and reuse them again and again. The intro and exit really define the style and brand of your show so careful thought should be given to them. There are some standard, best practice elements that should be in a good intro and exit:

- ▶ **Intro** Say the title of the show, who you are, a vision statement, and a welcoming message.
- ▶ **Exit** Thank them for listening, repeat the title, mention the URL of the website, give brief instructions and encouragement for feedback and comments, acknowledge contributors, and give a strong call to action.

Segment

A segment is a distinct, meaningful section of a podcast. Examples of segments would be an interview, a tip of the week or listener feedback. Segments may be separated from each other by some kind of obvious audio divider (a stinger); where they are not, the presenter usually introduces each segment to indicate a change of content, this is often called a *link*. Each segment may have a distinct purpose and style, and a distinct set of desired outcomes, but all fit together to make the meaningful whole.

Stinger

A stinger is a short piece of audio that can be used to separate segments. They often take the form of musical jingles or short sounds and often form part of the audio “brand” of the show. The same stinger may be used many times throughout the show reinforcing the brand, or less commonly, the stingers may vary throughout the show.

Music bed

A music bed is music that plays quietly in the background to some other, usually spoken, audio content. We're all familiar with it in films and TV and radio adverts. At times, usually between important bits of the main content, the bed may increase in volume. The bed may also do this very quickly, rising

swiftly on a pause then quickly dropping back down as the next word comes, this is known as “ducking”, and is often used by radio DJs.

Understanding the nature of podcast content

I want to give you way of thinking about content that will make it easier to come up with an initial show template. Think of content in terms of two dimensions:

- ▶ Presentation style, and
- ▶ Content type

Presentation style refers to the way content is presented or delivered. Examples might be:

- ▶ A monologue - one person speaking
- ▶ A dialogue - two people speaking
- ▶ An interview
- ▶ A panel discussion with several people
- ▶ A location recording such as a vox pop

Content type refers to the actual nature of the content. For example, voice is perhaps the most common type of content in podcasts, and can be used for:

- ▶ Stories
- ▶ Advice
- ▶ News items
- ▶ Messages
- ▶ Facts
- ▶ Opinions
- ▶ Questions
- ▶ Calls to action

Other non-voice content types would include music and other sounds. These lists are not exhaustive, you can probably think of other items to add or remove. Feel free to develop your own scheme. This is a flexible way of thinking and a nice tool for getting the creative juices flowing.

Some of these presentation styles and content types are worthy of closer examination.

Dialogues and interviews

In my opinion, this is one of the nicest presentation styles. Something magical happens when two people co-present or participate in an interview. Somehow, the sum ends up being greater than the two parts. I suspect it's to do with the interactions and chemistry between the two people. For this reason, choose you co-host carefully. Nik Butler (aka Loudmouthman) and I present the Social Media White Noise podcast (<http://socialmediawhitenoise.com>). We had been business colleagues and friends for about 3 years prior to starting. We share similar interests, have similar senses of humour and generally work very well together. We also know exactly how to wind each other up which, I think, adds a certain edge to the show. Nik also thinks at 1,000 miles per hour, and I think and pick up concepts very slowly which also adds an amusing dimension. Which reminds me, opposites can often work well together.

Stories

Human beings love stories. It's the old cave people sitting around the fire thing. I suspect that the bit of our brains that makes us like stories is located in the brain stem, just next to the bit that regulates our breathing and various base desires. Yes, I believe stories are *that* powerful, and they should be in your podcast wherever relevant and possible.

Opinions

Everyone has an opinion. I think opinions are great at poking emotion and can be a great way to evoke feedback - which is generally a good thing. Beware though. Try not to upset people. Avoid at all costs saying untrue stuff or saying bad things about people.

Calls to action

These are some of the most result-getting phrases that can be used in podcasts. Phrases like "visit the website at..." and "call this number..." can almost be given a monetary value. Always give the listener a reason though, for example, "To get that free report on XYZ, visit the website at..."

Getting ideas for content

It's a good idea to start a list of ideas for potential episodes. You only need a few to start with. A good way to start is to harvest common questions asked of you, you might be able to base an episode or segment on each question. If you encourage feedback on your podcasts, asked questions could be an

almost perpetual source of ideas. Hot topics can also be a source of ideas. Subscribe to relevant blogs in Google Reader for a constant stream of news and blog posts. Whenever you feel your self reacting in any way to a post or news story, be it anger, amusement or just plain disbelief, ask yourself if your thoughts could be the basis of an episode or segment. If so, add it to your list of ideas. Train yourself to jot down references to relevant news items, articles and ideas that causes any strong emotion.

Coming up with an initial approach

Once we know the general area our podcast will cover, ideally based on our passion - we need an approach, a way to convey that passion in a way that satisfies your need for expression *and* conveys a message or benefit to the listener. A successful podcast results in the satisfaction of the podcaster and the listener, the relationship continuing only if the experience is rewarding for both.

The correct approach is the conveyor belt that delivers your passion to the listener

I'm starting to sound like a life coach again so lets get practical. We need to design a delivery system to our listeners. The underlying verve is the passion. Powered and influenced by that passion is some content packaged into a show structure or template.

The most simple show structure would be a single segment with an intro and exit. Lets use this as a starting point:

- ▶ Intro
- ▶ Segment
- ▶ Exit

Now lets reconsider those two dimensions of podcast content again, *presentation style* and *content type*. They can be mixed and matched in a great many ways, some of which make more sense than others. For example our segment might contain:

- ▶ **An interview with an expert** (presentation style: interview), recorded at an event (presentation style: location recording), with an emphasis on her opinions (content type: opinions) about a particular topic;

- ▶ **A lively panel discussion** between four people (presentation style: panel) about refuse collection in Brighton (content type: news) with opinions (content type) and encouragement for listener feedback (content type: call to action);
- ▶ **An educational piece** from a narrator (presentation style: monologue) about how the moon formed (content type: facts).

Now, does the show need more segments? This will depend on how long you wanted the show to be and whether your desired outcomes require some more content style and type combinations. Feel free at this stage, to revisit your desired outcome statement. You may suddenly think of an outcome based on a segment idea. Remember, this is a loose, iterative process. We're looking for an initial approach which may evolve as the podcast matures.

Other considerations

What's already out there?

It's worth doing some research before you steam ahead to see what's already out there. Do some Google searches on different combinations of key phrases and see what turns up. Also search within iTunes and as many podcast directories as you can find.

Just because others are podcasting your idea doesn't mean you shouldn't do it. See how they are approaching the subject. It may be that you can take a different angle or select a niche within the area. There is **nobody** out there with the same voice, way of thinking or personality as you. You are unique. Podcasting is all about your unique personality. Also, remember that many of the competing podcasts you find may no longer be active. I was listening to the excellent Dave Jackson of the School of Podcasting the other day. He mentioned about taking a look at when the last episode of any podcast was released - this can be a real eye-opener.

Show duration and frequency

It's worth having at least an idea of how often you'd like to release the shows, and how long each show should last. Don't worry about committing to these too early, we can revisit these and tweak as we go through the planning process. The most common frequency, in my experience as a listener, seems to be weekly, although many of the podcasts I produce are monthly or

fortnightly. I don't think actual frequency matters too much, consistency is more important. If you're going to do a fortnightly podcast, stick to fortnightly. If you're going to deviate, let your listeners know or put up a short 1 minute placeholder show with an explanation. Many people have come to me and asked, "what's the ideal duration for a podcast?" Again I don't think there's a hard and fast answer. It depends on the content. You need to leave your listeners wanting more, slightly hungry. The great thing about podcasting, as opposed to traditional broadcasting, is that the episodes do not have to be the same duration. The duration accommodates the content, the content does not have to fit into a set duration; contrary to traditional broadcasting thinking. Some people say short is better, but I happily listen to shows in excess of an hour, Leo Laporte's *The Tech Guy* for instance - I never tire of the content. I'm equally happy listening to short shows, *Scientific American's 60 Second Science*, for example. If you were to force me into a decision, I suppose I would suggest 20 minutes as the ideal duration, but feel free to adjust this as you define the show structure and content.

Do I need music?

There's no doubt about it, music stimulates the emotions, big time. The next time you hear a charity appeal with an emotive music bed, try to imagine how it would feel if the music was taken away. It's your choice to use music or not, but if you do, choose with care.

Music, copyright and safe sources

OK. Here's the usual stock disclaimer. I'm *not* a lawyer, seek legal advice before making any decisions. Do not use music in your podcasts unless you have permission from the copyright holder. There are sources of music specially made for podcasting and there is a list of places to find music in the *Music Sources* appendix.

All rights reserved?

While we're on the subject of copyright, you need to think about the copyright of your podcast. Do you want to allow other people to produce works that include your podcast or not? If not, you need the traditional form of copyright. In 1886, the Berne Convention declared that to own the intellectual property of your work you simply assert it with a © symbol. By including the this, you assert your copyright and rigidly prohibit others from

duplicating or including your podcast in other works. The words “All rights reserved” often accompany the symbol.

The Creative Commons alternative

If you want to allow other people to build on your work, then you should use one of the Creative Commons licenses. You are effectively asserting “Some rights reserved”. There are several Creative Commons licenses based on combinations of answers to the following:

- ▶ Can the person make money from my podcast? (commercial or non commercial)
- ▶ Can the person modify my podcast or include it in their work? (derivatives)
- ▶ Must the person credit me? (attribution)

There's a great video on the Creative Commons web site at <http://creativecommons.org/videos/get-creative> that explains how Creative Commons works. It tells the story of musician Steve McDonald of the band Redd Kross, who noticed that The White Stripe's album, White Blood Cells, had no bass line. So he took their album and added one. It sounded a lot better. This kind of creative collaboration and standing on the shoulders of giants is made possible by the Creative Commons licenses.



So, if you want to be like Jack White of the White Stripes (no relation regrettably), ambivalent about folks building on your podcast, go for one of the Creative Commons licenses.

Keywords

The term *keyword* is a bit misleading. It can be anything from a single word to short phrase of 3 or 4 words. By definition, a keyword has a high affinity with a particular subject or topic. You need to create a list of keywords and try to work them into your title and description without overdoing it. For example, if we were doing a podcast on scuba diving, some of our keywords might be, *scuba diving*, *diving*, *scuba diving equipment* and *scuba diving lessons*. There are some great tools online to help with keyword selection. One of these is the

Google Adwords keyword tool at <https://adwords.google.com/select/KeywordToolExternal>.

Choosing a great title

The title of your podcast series is the first thing prospective listeners will have to go on. It needs to be descriptive of what the podcast is about. It's not just human beings that will read your title; spiders will also. Yes, it's the first time in the book I've mentioned the "spider" word - welcome to the exciting world of SEO, which stands for Search Engine Optimisation.

It's worth spending a little time discussing SEO at this stage. It's one of the many technical things you need to know a little bit about. Don't worry, you only need to know the basics. SEO is all about writing stuff for the web in such a way that it's likely to appear high up in the search engine results when people search for your topic.

I like Jason Van Orden's \cite{vanorden2006} recommendation of having a main title and a subtitle. You need to include your key words in your title and subtitle without them sounding silly. Having a subtitle gives you more opportunity to include your keywords. With formatting, the convention seems to be *title: subtitle*, for instance, the Internet Marketing podcast is "*Internet Marketing: Insider tips and advice for Online Marketing*".

Creating a great description

Finally, you'll need to create a 200 - 400 word description for your podcast. While it should be written primarily for humans, it also needs to be keyword rich so it will appear in the search engine results of appropriate queries. People will encounter this description in iTunes, podcast directories and your podcast's home website when they click on your podcast's entry so it should be descriptive, accurate and give them a reason to listen. Make sure you explain what to expect in the podcast. A good way of inducing people to listen is the AIDA approach. This stands for:

- ▶ Grab **attention** - start with some bold, declarative statements
- ▶ Generate **interest** - continue by revealing stimulating facts
- ▶ Induce **desire** - paint a picture of what the audience could gain from listening
- ▶ Call to **action** - suggest that they listen!

What you'll end up with

Having cycled through this procedure a few times, you'll end up with four main documents:

- ▶ An outcome statement
- ▶ A show structure
- ▶ A constantly rolling ideas list
- ▶ A show title and description

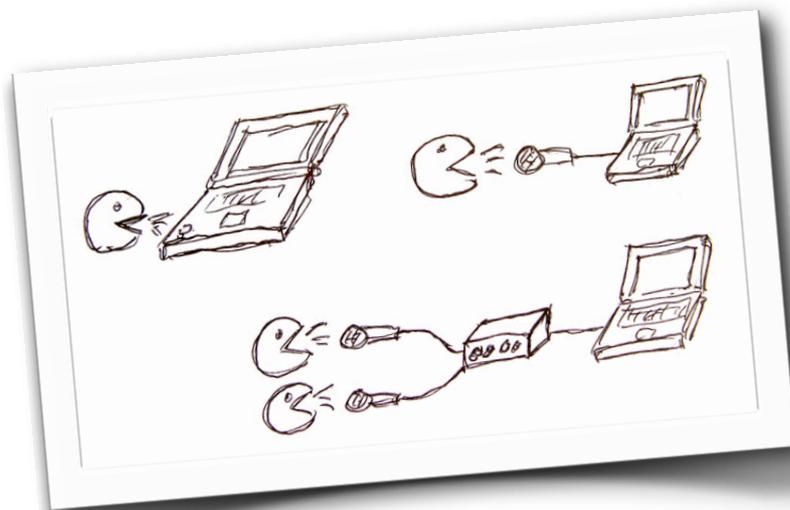
Having covered the planning process, lets now take a look at how we set up the systems to produce our show.

Setting up your podcast production system

Before we go into specifics, let's cover a bit of theory on production setups. We'll establish a way of thinking about your setup that I believe will prove really helpful in your quest to grasp the practicalities of audio podcast production.

Introducing the podcast production chain

Imagine a short chain composed of links, stretched out horizontally in front of you from left to right. This is the audio podcast production chain. Sound sources go into the leftmost link, and published podcast episodes come out of the rightmost link. Each link in the chain represents a piece of equipment.



Depending upon your chosen setup, the chain may have one, two or three links (pieces of equipment), and may occasionally have more in complex setups.

Any chain will always include a computer as the final link, may have a

microphone or digital recorder as the first link, and may include some sort of audio interface or mixer as a middle link. The computer is used to perform a number of tasks which often include audio editing, encoding, tagging, and uploading, and may optionally include recording, audio processing and mixing, unless these are carried out by other links in the chain. This isn't the only way of visualising production setups, you could also think of tasks as the links, but for the time being, we'll stick to our

hardware links analogy. Let's take a look at a few common production chain setups.

Single-link chains - a computer

True to our definition, a single link chain can only be composed of a computer - typically a laptop with a built-in microphone. While this would not give brilliant quality audio, it is nevertheless the simplest podcast production setup you could have. You might have used this setup in the *A podcast in 15 minutes* chapter.

The laptop would be running something like Audacity, which would be used to record directly from the built-in microphone, and do *post production* i.e. edit, audio process and mix. Audacity could also be used for encoding to MP3 and tagging. An FTP client such as Filezilla could take care of the uploading task. These final tasks, encoding, tagging and uploading are often referred to as *publishing*.

Two-link chains

These are setups with two pieces of equipment in the chain. There are two main scenarios:

- ▶ A microphone connected to a computer;
- ▶ A digital recorder that transfers recordings to a computer.

Microphone connected to a computer

If you're new to podcasting, this just could be the ideal way to get started. A single USB mic, and a computer with the necessary software installed. The great thing about USB microphones is that they just plug straight into the computer, no interfaces or mixers are necessary. The USB mic could be either a single mic such as the Samson C01U or a USB headset and mic combination such as those made by Plantronics. Like in single-link chains, all the tasks are carried out on the computer - recording, post production and publishing.

It doesn't have to be a USB mic. Some basic, dynamic microphones have a 3.5 mm jack which can be directly plugged into the computer's microphone

socket. I'm not a fan of cheap dynamic microphones and generally think you'll get better results from a USB microphone.

Although I'm wary of giving hardware recommendations, I'll mention a USB mic I've used and found to be quite good, the Samson C01U. In the UK it retails for about £50 at the time of writing.

Digital recorder and computer

Here the task of recording is taken up by the digital recorder. The computer does the post production and publishing. A typical workflow involves creating a recording on the digital recorder, which is then plugged into the computer and recordings transferred as uncompressed audio files. The digital recorder can often be a portable device, with recordings being done in the field and later transferred to the computer back at base.

There's a couple of things to note here. First, the connections between the pieces of equipment are not always permanent. Second, as a podcaster, you may have more than one production chain. For instance, you may have a microphone permanently set up in your office, which you sometimes connect to your computer as in the previous section, but you may also have a portable digital recorder for location recordings, which has brief liaisons with the same computer. In this example, the adulterous computer takes part in both chains⁶. Indeed for seasoned podcasters, it is not unusual for the computer to be the common final link of several production chains.

Three-link chains

If I were to do a survey of serious podcasters I suspect most of them would be using a production setup that falls into this category. As you might expect, just adding this one middle link vastly increases the possible setups we might see in the wild, and opens the way for some quite complex arrangements. There are several scenarios that dictate a three link setup:

- ▶ You want to bypass your noisy internal sound card;
- ▶ You need more than one microphone;
- ▶ You want to use a microphone that has an XLR connector;

⁶ That's computers for you. Can't live with 'em, can't live without 'em.

- ▶ You need phantom power for an XLR condenser microphone;
- ▶ You want to accept inputs from things that aren't microphones;
- ▶ You want to independently control the input levels of multiple inputs;
- ▶ You want to do *real time mixing* (Not for the feint of heart - more on this later).

The middle link is usually one of:

- ▶ A USB or Firewire digital audio interface;
- ▶ A USB or Firewire digital mixer;
- ▶ An analogue mixer.

Whatever the piece of equipment, there are some basic features they nearly all offer, namely XLR and quarter inch physical inputs, pre-amps, phantom power and input level control.

Other features may include multiple channels, often between 2 and 8, depending upon the device. Basic audio processing such as compression, and equalisation. Auxiliary channels and outputs in the case of mixers. Let's cover a few real life examples.

Most dynamic microphones have a XLR connector, those big, 3-pin plugs. So you need some sort of interface between the microphone and the computer. The simplest are USB interfaces such as the Griffin iMic, the most complex are USB or Firewire mixers.

Using a USB interface

The Griffin iMic is probably the smallest, cheapest and simplest analogue to USB interface available. It is a small, circular, flat device with a USB plug emerging from one side on a short lead, and two 3.5mm audio jacks on the opposite, flattened edge of the disk. It has a slider switch on the edge for *line* and *mic*.....

You would only use this device if you were looking to bypass your built-in sound card; it has no ability to accept an XLR plug, nor to provide any pre-amplification or other control.

Moving onto mid-range devices, I use the Edirol UA-25EX USB interface..... At the time of writing it costs about £160.

microphones → interface → computer

This section needs completing

Using a USB mixer

microphones → mixer → computer

same here

Real time mixing with an analogue mixer

In this setup we have one or more microphones, and maybe other inputs, connected to a mixer, which is connected to the computer. The order of tasks is different though. The mixing and some basic audio processing is performed by the mixer, *before* the output is recorded on the computer. This means that post production on the computer can almost be eliminated if editing is not required - saving time and increasing productivity. The only requirements of the computer are recording and the publishing tasks of encoding, tagging and uploading. Using this setup, shows can be published within minutes of recording.

There a special dynamic when recording in this way that you just don't get with other techniques. There's a real *live* feel to the show, after all this is the way radio presenters work. You and your co-presenters are working under a kind of *do-or-die* vibe that brings a palpable edge. If you are really committed to doing no editing whatsoever, you all know that any fluff will have to be talked out of - and trust me, there *will* be fluffs - but the apologies and verbal gymnastics of the corrections will probably contribute strongly towards the essence of the show. I believe this technique leads to a better result in many ways.

The downside is that you have less control. The mixer takes many input channels and mixes them down to a left and right stereo output in real time. What you record is a premixed stereo event. I am an audio control freak, and I cringe at the thought of not being able to record each channel separately just in case it requires some sort of tweaking or editing in post production. There's something very satisfying about momentarily fading out a guest's microphone channel to remove his misplaced cough as someone else speaks on a different channel. However you may be happy to sacrifice a little bit of control for the huge gain in productivity. I know of two podcasters, Leo Laporte and Cliff Ravenscraft who operate in this way; they both produce

multiple podcasts each week. It would hazard a guess that this is made possible only because of this live mixing approach. However, never say never. Even as I write this chapter, I am contemplating which podcasts I could possibly do this with - the gain in productivity has an ever increasing appeal.

It's worth talking about the connection between the analogue mixer and the computer. You could take a lead from the *main out* of the mixer and plug it straight into the 3.5 mm jack on the computer. For best results though, use an analogue to USB interface such as the Griffin iMic. This will bypass the often noisy built-in sound card of the computer and give a much cleaner result.

A variation of this setup is to record straight from the mixer into a digital audio recorder rather than the computer, effectively adding a fourth link to the chain. There is a very good argument for *not* using a computer to record. Recording is a real time process, meaning it only has *one* chance to perform. If the computer crashes or goofs up in any way during the recording, time is not going to rewind and repeat the event. Digital audio recorders tend to be much more reliable than computers, after all, they are built to do one task and do it well. I do both. I have my MacBook record from my USB interface using Sound Studio, but also have my Zoom H4 record from the analogue outputs of the same interface. Belt and braces. I like the convenience of on-computer recording, seeing the wave form in front of me, and the elapsed recording time, but knowing that I've got the Zoom recording if the computer has a panic attack.

How best to set yourself up?

OK. Enough theory. Lets get practical.

We've just learned that there are a huge number of ways to set yourself up for the job of podcast production. We're going to focus on three fairly common setups, and just for completeness, a specialised way for the adventurous, fly-by-the-seat-of-your-pants types. Remember, these are four common scenarios, you could tweak each step of any of these to create an almost infinite number of variations.

- ▶ Basic - one USB condenser mic and computer with audio processing software
- ▶ Medium - one or more dynamic microphones, a USB audio interface, computer with audio processing software
- ▶ Advanced - multiple microphones, mixer, USB interface, computer with audio processing software
- ▶ Real time mixing setup - for pros and radio people

Lets cover these setups in detail.....

[expand/complete](#)

Setting up a podcast series

Once we have decided what our podcast is going to be about and done some planing, there are some things we need to do on our computer to set it up.

Folders

I'm a stickler when it comes to folder organisation. You've heard me mention before that you should have a top level folder to store your podcast series, a project folder if you like. Within this folder, I recommend a separate folder for each episode and a *Common* folder is useful for all those commonly used files, intro, exit, music, stingers and artwork images. Within each episode folder the structure is up to you and may be dictated by the software you use to record and mix.

Having a structure like this makes archiving easier. If each episode is in a separate, self contained folder, it can be moved onto an archive media without fear of breaking anything else.

Artwork

600px square - 144px, 300px

apple tv

not too intricate - media player size

include title, url, nice image

Under construction...

Recording the intro and exit

Once you have made all the preliminary decisions about your show, it's time to record the intro and exit. Save these as *.wav* or some other non-lossy format. It's also worth getting any music, stingers and artwork together and in one place; I recommend putting them in your *Common* folder.

Under construction...

Set up hosting

Must think about storage and traffic. A typical 30 min show is about 30MB. A hundred downloads a month is 3 GB of transfer traffic.....

Under construction...

Specialist podcast hosting companies

This part to the end under construction...

Libsyn

Libsyn charges are based solely on storage - which makes pricing very simple. They also have a web publishing front end, although you don't have to use this.....

some people use it just for the hosting and have their own separate website

Amazon S3

Since 2006, Amazon have been making their vast server resource available for hire, Amazon S3 is their high availability online storage offering. The concept is very simple. Once you have an account, you may create as many "buckets" as you wish. Think of a bucket as a place where you can store files; each bucket has a unique URL. I would suggest you create a single bucket for your podcast and name it based on the podcast title (Amazon S3 bucket names must be globally unique). Amazon then charges you for storage, and data transfer in GB per month. At the time of writing, typical costs for storage and transfer are \$0.10 - \$0.15 per GB month so do your sums. If you know your storage and traffic, you can calculate the tipping point where another hosting model would be cheaper.

Amazon do not provide any front end for accessing their service - they purely provide the storage service. They do however provide an API, which means

other vendors can create front ends. FireFox have the *S3Fox* addon (<https://addons.mozilla.org/en-US/firefox/addon/3247>) which makes uploading files a simple drag and drop affair.

.....

Shared server

Your ISP may offer hosting

Many providers offer unlimited storage and traffic

Dreamhost

1and1

TODO mention about pipelines and connection speeds

Dedicated server

A typical dedicated server on a 100 MBit/sec pipe will cost in the region of £50 to £200 per month depending on the type of server. This option may not be viable for most, but could be suitable if you host podcasts on behalf of clients. Many companies offer a web control panel such as Plesk for dedicated servers so you don't necessarily have to be familiar with Linux administration. There are a myriad of companies offering dedicated and shared server, check out 1and1 (<http://1and1.com>), and Dreamhost (<http://www.dreamhost.com>) for starters.

Set up the website

Libsyn has webpages built in

WordPress automatically creates RSS feed - best in my opinion

Preparing an episode

This is a short chapter to cover the things you need to do to create great episodes. Podcasting is all about your passion, but it's also about great, compelling and engaging content. You'd think coming up with good content to do with your passion would be easy, but there will be times when the helping hand of a good content generation strategy will be required. Let's discuss this now.

Keeping the ideas bucket full

The human brain is a remarkable thing. Contrary to the belief of some people, it's also a very creative thing. It just needs a little bit of input to get it going. Luckily the Internet provides us with some great tools that are ideal for this. We'll look at these next. The recommendation here is to have a trusted system to capture any ideas you have. Perhaps have an *Ideas* folder in your project folder and use plain text files - it doesn't matter how you do it - but have an ideas capturing system.

...Notational Velocity

...others

For some odd reason, my most creative place is in the shower. Perhaps it has something to do with the state of mind I go into while showering - semi-hypnotic and trance like. Oh, and I can write ideas on the steamed up cubical sides.

This chapter under construction...

Recording Audio

This first section under review - not sure if microphone types should be here...

Microphone types

Dynamic microphones

TODO talk about possible examples

Shure SM58

workhorse / music concerts / insensitive / good rejection / use popshield

dynamic directional insensitive good for noisy environments

USB Microphones

TODO talk about possible examples

Samson C01U Studio Condenser

use a popshield - speak into the front samson US10 has a front good quality detailed top end hiss sensitive convenient

Condenser

sE 2200T Valve Condenser

very high quality - use a popshield - speak into the "front"

Clip on microphones

AKG clips ons

9v batteries

Sony.....

No need for separate battery box - battery in XLR plugs

Portable digital recorders

...

Zoom H4

Despite looking like a tazer, but the Zoom H4 is a very cool digital audio recorder. I have used it extensively and, apart from one major gripe, really like it. So, here are some tips for getting the best out the Zoom:

- ▶ Always use the black, foam rubber wind guard, even when indoors. The built-in microphones, as good as they are, are very sensitive to air movement. One person I know had to re-record a session recorded without the wind guard, because the air movement caused by the ceiling fan, some 2 meters above them, had rendered the recording useless.
- ▶ Observe the level on the display when recording. They should, on average, be at around the half way point and occasionally hitting the max position to the right. There is a sensitivity switch on the right hand side labeled 'MIC', with low (L), medium (M) and high (H) settings to control the microphone sensitivity. The M setting usually works best.
- ▶ When interviewing, hold the device about 10 inches from the interviewee's mouth, but off axis, i.e. not directly in line with the blast of air that comes out of their mouth with every B or P.
- ▶ Always remember press that REC button TWICE, before you start the interview. The first press puts the device in 'monitor' mode. It's hearing through it's microphone but not recording and the REC button is flashing. The second press puts it into 'record' mode and the REC button is steady red. Don't get caught out by this. The results of some of my early interviews were a 3 second recording of me saying "Pooh! It was on standby!"
- ▶ Always monitor as you record. Plug a pair of headphones into the PHONES socket on the left hand side and listen as you record. This way you can hear if anything is going wrong such as bad background noise, excessive popping (wind noise from Ps and Bs) or if the batteries suddenly fail.

What's the gripe? There is no indication of battery life remaining.....

expand

Connecting a microphone to your computer

USB microphones

USB interfaces

iMic

Edirol

TODO expand / discuss.....

Analogue mixers

Under construction...

How to use a microphone

complete

How to Use Your Voice

Try and be upbeat and quite pacy but not over the top. It's good if you can smile while you speak - this comes across in your voice. Imagine that you are talking 1 to 1 with the person or that you are telling a bit of gossip.

expand...

How to use a microphone

Speak into the right part! / stay in range / don't shout

Under construction...

How to mic people

It makes a difference how you do this

A hand held mic with a group can stifle spontaneity - use individual lapel microphones - then ppl can join in when they want

Software

It's impossible to cover every audio recording and processing software here so I'll stick to a few selected ones that I have experience with and mention a few others that I know of.

Audacity (All platforms)

Audacity is probably the first word you will hear out of the mouths of many podcasting mentors and for good reason. It's free, open source and well regarded by most. Since moving to the Mac I had become a bit of a Logic Express snob, and had forgotten just how good Audacity was, until I came to

write this and had to take another look. The user interface isn't the prettiest, and even though I'm not sure if stability is still an issue or not, I would definitely recommend it to those starting their journey into podcasting with one or two caveats. Being open source means that there a worldwide team of developers constantly tweaking and improving it, and if you're of the geek variety, you could even take the source code and fork the project into a new direction. But the really nice thing about Audacity is it's cross platform, running on Windows, Mac and Linux.

Audacity has a project-based working model, meaning all the work happens within a self-contained, opaque (largely) project and you have to explicitly export to produce audio files you can use elsewhere, and import to work on existing audio files. Creating a new project in Audacity creates a project file and a data folder side by side, so I would encourage you to get into the good habit of making a folder specifically for the project first, and saving the Audacity project into that. One other tip. Please, please, please hit that File → Save Project option frequently when working, in fact get acquainted with the keyboard shortcut for that on whatever platform you're using.

Lets go over some of the important settings you'll need to know about to get started.

Audio I/O

Under the Recording section there are Device and Channels settings. The Device allows you to select any built-in or attached audio devices, Built-in Microphone and Built-in Input will often be present by default, referring to the built-in mic if you have one, and the built-in audio jack present on most computers. If you have a USB microphone, interface or mixer attached, it should appear on the list with some intelligent name, often the name of the manufacturer.

The Channels setting controls the default number of channels a new track has (more on tracks later). In most cases, only 1 (Mono) or 2 (Stereo) will work without causing an error. This is because most input audio devices have a maximum of 2 channels.

Play other tracks while recording new one is pretty self explanatory. When recording in a project, any other tracks that you previously recorded will play. This can be useful for example when a previously recorded intro is used and

you want to hear it just as you record the first segment perhaps as an aid to get the same energy into your voice.

Another two interesting settings in this section are Playthrough and Software Playthrough. Checking either will cause the sound of what you're recording to be played through your speakers or headphones as you record it.

However, there's an important difference between the two. Hardware Playthrough causes the recorded sound to be passed straight through to the output device via the hardware itself - this is quick and uses almost no extra computer resources. Hardware playthrough is only possible if the input and output are physically on the same sound device (card). Software Playthrough does the same thing but via software, it introduces a small time lag but works even if the input and output are on separate sound devices. The issue with software playthrough is that there is often a small time lag of a few milliseconds between you speaking into the microphone, and you hearing yourself through the headphones. This can be very disconcerting. Also, always use headphones when using software or hardware playthrough, if the sound of what is recorded is coming out of the speakers, it will be picked up again by the microphone causing hideous, squealing feedback reminiscent of that final scene in the 1978 version of Invasion of the body snatchers where Donald Sutherland turns round, opens his mouth and...

Quality

Under this section, there are only two settings to be concerned with, Default Sample Rate and Default Sample Format. Unless you have an inherent like of the sound of the Chipmunks, leave Default Sample Rate at its default of 44,100 Hz. Changing it from any value that is not divisible by 11,025 can cause Chipmunk-like problems if you later try to play any resulting MP3 files with any embedded Flash player - apparently this is an issue with Flash.

The Default Sample Format usually defaults to 32-bit (float). You can safely leave this as is. We'll talk further about sample rate and bit depth later.

File Formats

There's a couple of settings to know about in this section. Uncompressed Export Format refers to the format and sample depth of any exported uncompressed files. This is best left at its default value of WAV (Microsoft 16 bit PCM).

Under MP3 Export Setup there is the MP3 Library Version. Because of licensing restrictions on the MP3 format, when you first install Audacity the library which converts files to MP3 cannot be included. It is necessary to go and fetch this separately (it's a single file), place it somewhere sensible on your computer, and tell Audacity where it is. The Audacity website suggests using the LAME MP3 library which, at the time of writing, can be downloaded from <http://lame.buanzo.com.ar>. There are versions for Windows, Mac and Solaris. The library needs to be placed somewhere sensible. On Windows I would make an Audacity folder under Programs and Settings and place it in there, on Mac it installs by default in /usr/local/lib/audacity. If you're using Linux you might be better off just using one of your package managers to install the libmp3lame0 library, or even compiling it from source. Whatever method you use, the library will probably end up somewhere like /usr/local/lib/libmp3lame.so.

Under MP3 Export Setup there is a Find Library button. Click this and select the LAME file from wherever you (or the system) put it - you only have to do this once, Audacity will remember from then on despite still showing the button, and proudly offer you the ability to File → Export As MP3.

Here you'll also find Bit Rate which defaults to 128. This refers to how quickly the ones and zeros flow out of the MP3 file (in kilo bits per second) when played, and hence, the degree of lossy compression of the data stored. The higher the rate, the less the audio data is compressed and the better quality the sound. If you're recording primarily voice, perhaps with a little music in the intro and exit and the occasional stinger, 128kB/s should be fine, I would never go below this. If your podcast contain a lot of music, I would recommend selecting at least 256kB/s.

Recording

Open Audacity and hit the big red record button at top left. It's that simple. Observe the waveform as you record. It will be forming as you watch and it's a nice indication that you're actually successfully recording something. What you're aiming for is a waveform that makes full use of the height of the track. The loudest parts should almost reach to the top and bottom of the track but not crash into them - this is called clipping and we'll discuss this further later. You can alter the loudness of the recording by sliding the input sensitivity slider at the top left of the window - it's the slider with the little microphone symbol next to it.

You'll also see activity in the level meter in the top right corner of the Audacity window. If you have the Channels setting to 1 (Mono), don't be surprised to see only the top (left) level meter showing activity - this is normal - don't worry, your finished mono recording will play back through both channels.

When you've finished recording, make your first save, File → Save Project. Get into the habit of doing this frequently - Audacity can sometimes crash unexpectedly.

If you record again, each new recording event appears in a separate track that appears at the bottom of the window, so you may end up with multiple tracks which play together when you click the play button (top left). Don't let this throw you! Audacity allows you to slide these recordings along the tracks so they line up as you want them. To do this click the Time Shift Tool, the button top left that looks like a horizontal double ended arrow. Now put your cursor over the recording you want to slide, click, hold and drag. This allows you to arrange your recordings with respect to each other.

Exporting

Once you've got things as you want, you may want to export the project, or selected tracks of it, as a file that can be used externally. Often this will be a final MP3 file, but sometimes it may need to be something uncompressed because it will be used as part of another project. There's a golden rule of audio production - "Process uncompressed, compress once at the end", meaning that all processing and mixing should be done on uncompressed audio files, and only once the project is finished do you encode to some lossy format such as MP3 ready for distribution.

Under File there should be various export formats offered including WAV, Ogg Vorbis and MP3 if you've done your obligatory backwards somersault through the flaming LAME MP3 hoop.

When you export, you may select an individual track, a selection of tracks, or the entire project. These options are offered under the File menu. To select a track just click on the track header on the left (being careful not to accidentally adjust the volume, balance or click the Mute or Solo buttons) - the header and audio of the track will now be highlighted in grey. To select multiple tracks, hold down shift while clicking.

Sound Studio (Mac only)

Sound Studio is a nice, simple, audio editor and processor from Lucius Kwok and Felt Tip Inc, you can find it at <http://www.felttip.com/ss>, at the time of writing it cost about \$80. Since switching to the Mac, I've used it pretty exclusively. Sound Studio has a file-based rather than a project-based working model meaning it creates new and edits existing audio files directly.

```
Expand...
usage
  setup/preferences
    audio in & out devices
  play through
  file based model
  file formats
  new file
  recording
```

The idea of tracks and mixing

It's worth talking about tracks at this stage - you're going to come across tracks quite a lot in the world of audio production software. The basic idea is that audio recordings can be arranged in separate, independent tracks. The audio recordings within these tracks may be arranged freely with respect to each other, so for example, a recording of some intro music in track 1 may overlap with the beginning of a recording of the main body of a show in track 2. Other parameters of the tracks may also be independently adjusted, in our example, the loudness of the intro music in track 1 may be faded down towards the end as it overlaps with the main recording in track 2. The same can be done with a host of other settings such as balance, filtering and other audio processing - these can be adjusted independently in each track. Because of this, tracks often contain particular types of recording that require similar types of processing. For example, a podcast episode may contain 3 tracks, one for the intro and exit music, one for audio recorded in the studio, and another for recordings done in the field. The process of arranging different audio components within tracks and adjusting settings in this way is known as mixing. We'll talk more about this subject later.

Garageband (Mac only)

No discussion of audio production would be complete without mentioning Garageband. It's only available on the Mac though. I leapfrogged over Garageband when I moved away from Adobe Audition on the Windows platform and became a Mac fanboy. For some odd reason, I went straight to Sound Studio, not liking Audacity's slightly austere user interface on the Mac. However, having gone back and taken a look at Garageband it does seem quite a nice way of producing podcasts, and many podcasters use it and love it. And we mustn't forget, Garageband is the only way to produce enhanced podcasts - more on those later.

```
Expand ideas...
comes with Mac
really recording, post & mix suite
  record in mix model
  working model ....
usage
....
```

Logic Express (Mac, other platforms?....)

OK, I'll use my usual joke about Logic Express being a bit like Garageband on steroids - it usually gets at least a brief obligatory titter - but it's largely true. Logic Express is a full featured, multi-track audio recording and mixing suite with numerous audio processing and effects filters - it's definitely not for the faint of heart. Like Garageband, it's actually designed more for producing music - so podcasters will tend to use only a small set of the available features.

Logic Express has a project-based working model - but unlike Audacity, the project is composed of a folder hierarchy which feels a bit more open and visible. For example, you can see any source audio files you've brought into the project in their virgin form in an Audio Files folder, and any exports, known as bounces in Logic, are visible as normal audio files in their own

Bounces folder. All the metadata for the project is stored in one .logic file in the root of the folder hierarchy.

Like Audacity and Garageband, Logic Express allows audio recordings to occupy separate tracks. It took me a while to get used to the way it worked when I first started using it though. I was used to using Audacity where any changes you make to the files are destructive. In audacity, for example, if you apply a filter, the original file is changed to include the effect of the filter. In Logic Express, you add the filter as an insert to the track. The original file remains unchanged. The only time you hear the result of the filter is when you play the track or bounce the project. I quite like this approach. There's something very reassuring to have the original audio recording a client sent to me sitting there unchanged with a series of filters and effects stored as metadata in a separate file. It feels like a clean, logical approach. Perhaps that's why they call it Logic.

Logic Express really shines in audio processing and mixing, but it's not strong on audio file editing, things like removing an "um" here or a cough there. If you need to do very fine level editing like this, I would recommend using something like Audacity or Sound Studio before bringing them into Logic Express. There is a sample editor in Logic Express but I find it fiddly and you must remember that it is destructive, meaning it will change the original file. If you only need to do coarse editing like removing large sections of audio or joining separate sections together, then try and get used to doing it in the tracks. Logic Express calls bits of audio sitting in tracks regions. These can be selected from any audio file, or portion of an audio file brought into the project, and arranged in any track, in any order you please. You are free to slide, re-order and join these together in any way. For example, say you had a recording where you only wanted the first and last bit, and the middle bit was rubbish. You could make a region from the first bit, another region from the last bit, and arrange them back to back in a track - very much like cutting and splicing tape in the old days - and the nice thing is, the original recordings are sitting there unaltered in the Audio Files folder. Say you later re-recorded a better middle in another audio file, this could be brought into the project, a region made of the bit you wanted, and this could be inserted in between the two original regions - powerful and flexible.

Fix

....there is one caveat to this however. If you're going to use the original audio files in another project and you've done some cutting and joining like this, the bounced project will bear no resemblance to the original recording and any time codes will be out..... hmhhh.....

advanced users

proprietary

record in mix model

Logic Express allows recording directly in the arrange window. Just record-enable the track to see a flashing red light, then hit the record button at the bottom.

Recording in the Studio

Do you need a permanent studio set up? I would say it depends, but probably no.

mic stands - pop filters

lightweight - so can set up quickly

Under construction...

Sensitive microphones in echoy rooms

I used to throw a blanket over my head, this was fine in the winter but not recommended in hot summers, even our paltry UK summers are too hot.... A great alternative is the blanket cave technique. Thick, stiff blankets can be sculptured into a heap behind and around the sides and top of the mic to form a sort of shallow cave.... I've found this is just about as good as the blanket over the head technique - but allows normal breathing, reading of scripts and equipment operation. ...this will not suppress noise, but will dramatically reduce echo.

Recording in the field

wind noise - biggest enemy - use person as windshield (be creative)

balance background noise to speaker - mouth distance

always carry a recorder - iphone now built in - beware of battery usage though

Under construction...

Recording Telephone Conversations

In my humble opinion, Skype is the best way to record telephone conversations. For a long time I messed about with devices that enabled recording from a standard telephone line - with dismal results. I wont go into the sordid details but to cut a long story short, the audio quality left a lot to be desired.

There is software that enables you to record from Skype. For Windows take a look at Pamela Pro (<http://www.pamela.biz>), for Mac OS X there are a few including Audio Hijack Pro (<http://www.rogueamoeba.com/audiohijackpro>), which I have some direct experience with, and Call Recorder (<http://ecamm.com/mac/callrecorder>). For Linux users there is another version of Call Recorder especially for Skype for Linux at <http://atdot.ch/scr>.

Audio Hijack Pro (Mac only)

Because I have direct experience with this Mac only software, I'll explain how it works. Audio Hijack Pro has a nice simple model. It presents any program that either consumes an audio input or produce an audio output as a selectable audio source. Examples of programs that produce audio outputs would be: DVD Player, iTunes and Quicktime Player, and examples of programs that consume an audio input would be the default audio mic input or any external microphones plugged in. Skype actually does both, it produces an audio output, the person talking at the other end, and consumes an audio input, your voice via a microphone. What Audio Hijack Pro does is literally hijacks the inputs and outputs in real time and records them to an audio file. I like the way it names the audio files it produces too, they start with the name of the program captured, then the date, then the time - nice and simple. So a typical example of a Skype recording might be Skype 20100427 1256.aiff.

At the time of writing, Audio Hijack Pro cost \$32 for a single user license, and can be found at <http://www.rogueamoeba.com/audiohijackpro>. It has an

unlimited free trial period but will add noise to any recording over 10 minutes.

To use Audio Hijack Pro, start by selecting a source from the list of applications on the left, Skype should already be there as one of the defaults. The main window should now contain 5 tabs, Input, Schedule, Recording, Tags and Effects. Under the Recording tab, set the Format to For Burning to CD (AIFF) - this will give the highest quality as AIFF is a lossless format. Under the Files section, set the Save recordings to value to somewhere that suits you. The default will be ~/Music/Audio Hijack, you may prefer somewhere else such as the desktop for example.

It's worth mentioning a few subtleties on good usage. I always recommend when recording Skype interviews to have you and the interviewee separated on different channels, say, you on the left and your interviewee on the right. This can be done in Audio Hijack Pro but you have to set it up right. When hijacking Skype calls the default is to mix you and the other person together. To place you and them on separate channels hit the Advanced... button under the Input tab, select the MegaMix Mode (Hijack all audio streams) radio button in the lower half of the resulting dialogue box. Make sure the Play outputs through and Play inputs through are set to separate channels.

Now click the Hijack button on the top bar, if Skype is already running you may get a message that Audio Hijack needs to restart Skype - comply in this case, otherwise Skype will be automatically launched in hijacked mode. Now start you call an hit the Record button. You should see activity on the volume meter in the top window, you'll be in one channel and your guest in the other. To stop recording just click the Record button again. An audio file of the recording will now appear wherever you asked for it to be stored. You can always select Recording Bin from the top left at any time to see a list of all your recordings regardless of where they're stored.

Hardware approaches to recording Skype calls

Because my prior business activities have blessed me with multiple computers, and my early forays into podcasting left me with slightly more equipment than experience, I tend to use the hardware approach to recording Skype calls. Here we take the audio output of the Skype computer and my microphone as two separate channels into a dedicated recording device or another computer running Audacity or similar. The tricky part is feeding the

microphone back into the audio input of the Skype computer so the person on the other end of the line can hear what you're saying.

There are a few ways this can be done. In the early days I used the Zoom H4 set to input from its two external XLR/quarter inch hybrid inputs. The left channel (input 1), got the XLR input from my SM58, while the right channel (input 2) got the audio output from the computer running Skype. In true Heath Robinson style, I had an additional Samson C01U USB microphone plugged directly into the Skype computer so the interviewee could hear me. So I actually had two microphones picking up my voice, one for the recorder and one for Skype. It may have looked rather odd, but it worked well enough.

As I got more sophisticated, I started using the Edirol UA-25EX USB interface instead of the Zoom, this plugs straight into my MacBook via USB, with Sound Studio being used as the recording program, but Audacity would work just as well. Like the Zoom H4, the Edirol has two hybrid XLR quarter inch audio inputs, the first one, channel 1, takes the audio from my Shure SM58, the other, channel 2, takes the audio output from the Skype computer. But the nice thing about the Edirol is that it also has audio outputs for each input. This means I can take a lead from the output of channel 1, my voice, and plug it into the audio input of the Skype computer so the person at the other end can hear me without the need for two microphones.

TODO pic of hardware Skype recording

We could, at this stage, talk about more complex hardware set ups for recording Skype calls involving mixers, mix minuses and multiple local people - but I'll leave that for later. I just wanted to capture the essence of Skype recording here.

The useful thing about having you and them on different channels is the ability to process the sound separately. The two audio sources often need quite different treatment. Now it is true that Call Recorder does allow you to split the two channels, but it is a slightly round about process. If you did a conference call, you can bet your bottom dollar that the "others" channel will all be at different levels, some quiet, some loud, and if Skype works the same for you as it does for me, some amount of fading in and out. I think that the Levelator is one of the best tools to correct this - but only on the Skype

channel. In Audacity click the drop down box on the track you want to levelate, and select Split Stereo Track. Now select the newly split away track, and choose File → Export As WAV. Save and put this through the Levelator.

Where Skype gets really interesting is in conference calling. This is where you can add up to 15 other callers just by dialing them in. I have been able, for example, to call an interviewer on his mobile at a train station in Sussex using Skype out, then call his interviewee in the USA on her office phone, mute myself out then record them having the interview from my office. The possibilities are endless.

Best Practices

Under construction...

Common Mistakes

Under construction...

too much background noise

not listening

Additional tools for the Podcaster's toolbox

These toolbox sections may go....

Pop filter

Microphone stand

Portable digital audio recorder

Rechargeable batteries

Getting your recording into shape

Very few original recordings are ideal as they are. There are things we can do to make them sound better and ways to combine them into an actual show. The process of making an individual sound recording better is often called “post production”, and the process of combining different recordings to make something meaningful is often called “mixing”.

Audio post production

This is everything that has to be done to the recordings to create a compressed audio file ready for publication. It is composed of:

- ▶ Editing
- ▶ Mixing
- ▶ Encoding
- ▶ Tagging

To set the scene, before we venture into post production and mixing, lets talk about a few common things that can be done to make individual records better. First, though, we need to understand a few basic things about digital audio recordings.

Understanding digital sound

need something here

What are samples and sample rate?

To represent sound digitally, we have to turn it into a bunch of numbers, actually zeros and ones. Sound is an analogue phenomenon. In real life, sound is a smooth, continuous procession of pressure waves moving through the air at about 343 meters per second (approx. 768mph). At any one point, as audible sound passes, the air pressure rapidly rises and falls at a mixture of rates anywhere from about 20 to about 20,000 times a second. To represent a

sound as numbers, this rapid rising and falling of pressure has to be measured, or sampled, at regular intervals, typically 44,100 times per second. This is called, not surprisingly, the sample rate, and is measured in Hertz (Hz). A hertz is once per second, so 44,100 samples per second is 44,100 Hz, or 44.1 kHz. This is a very typical sample rate, and most audio recording equipment will default to 44.1kHz (often abbreviated to just 44kHz).

Bit depth

The bit depth is the number of bits used to store the number that represents each sample. In digital audio recording, this is usually 16 or 24 bits. Every time you add a bit, you double the size of the number you can represent, so, as you can imagine, 24 bits gives us an infinitely bigger range of values than 16 bits. However, for normal audio digital recording, 16 bits is perfectly adequate.

Because I'm a keen photographer, I like to think of digital sound as like a long, thin digital photo of the sound wave. The horizontal resolution, how accurately we can represent the changes in pressure over time, is akin to the sample rate, and the vertical resolution, how accurately we can represent the actual pressure at that point in time, is akin to the bit depth.

Understanding normalisation and clipping

In an ideal recording, the loudest part of the sound would be represented by the biggest number that could be represented by the bit depth. In the real world this is rarely the case. To correct this, we multiply all the samples by just the right amount to make the first statement true. This is known as normalisation. Going back to our digital photo analogy, this is like stretching the picture of the wave form vertically so that the loudest part just hits the top or bottom, thereby making full use of the height (bit depth).

Sometimes, the opposite occurs, and significant portions of the sound crash into the top and bottom of our wave photo. The loudest part of the sound would have had to be represented by a number way bigger than the bit depth would allow. This is known as clipping and usually happens when the sound has been recorded at too high a level. There is no way to realistically correct this because data has effectively been lost (off the edges of our analogical wave photo). For this reason, as I'm sure you have already deduced, it is better to record at a level that will minimise clipping, yet make good use of the bit depth.

Understanding audio compression

Many people get audio compression mixed up with file compression. Please don't worry if you never heard of either, I was just trying to open this section with an intelligent sounding statement. But it is common to get them confused. Lets just quickly mention that file compression is all about squashing the contents of a file down, ideally without losing any information, so it takes up less disk space. Audio compression is very different.

In a typical audio recording, there can be quite a big difference in loudness between the quietest and loudest parts. Sometimes, this difference can be so great that it makes it hard to listen to. I'll give you an extreme and rather silly example. Imagine a recording of a massive explosion in a pin factory followed by the sound of some pins dropping. Now imagine you were trying to listen to this while walking down a noisy high street. I'm sure you'd hear the explosion, but probably not the pins. To correct this, we de-amplify the sound of the explosion. This has the effect of bringing the loud and the quiet parts closer together in loudness. Now when we listen in our busy high street, we hear both the explosion and the pins. This process is known as audio compression.

I've only explained this in basic terms. Let me expand your knowledge of audio compression with another daft analogy. Audio compression is a bit like a little man with his hand on the volume knob, listening to the audio. When he hears the loudness go over a pre-set level (known as the "threshold") he quickly eases the volume down, when he hears the loudness go back below the threshold, he eases it up to where it was before. The amount that he reduces the volume by is known as the "ratio". The higher the ratio, the more dramatically he turns down the volume. In my silly pin factory example, he didn't have to act very quickly. In the real world though, he's a veritable superhuman in his reactions, sometimes reacting to loudness changes within milliseconds. The speed at which he turns down this volume knob is generally known as the "attack", and the speed at which he turns it back up again is known as the "release". The human voice, in it's unaltered form, actually has a large loudness range, and can benefit from moderate audio compression. I'm not talking about loudness differences between loud words and quiet words, I'm talking about loudness differences from one bit of a word to another. Loudness differences that are mere milliseconds apart. A

voice recording with moderate audio compression sounds fuller and more satisfying than without, and is certainly easier to listen to, especially in noisy environments. However, audio compression can be overdone. If you think about it, audio compression taken to its extreme would result in the entire sound being at the same volume, a hideous, confused din. You can tell when a voice recording has been over compressed - it sort of gives you a headache and you get a sense of relief when it stops. I suspect you've experienced this at some time, possibly without realising the cause.

Understanding noise gating

We've all heard it. The telephone call in show where a disgruntled gardener is telling us all about his wilting Brussels sprouts and what can be done about his mealy bug infestation. Problem is, we keep hearing a really annoying crackling telephone sound underneath it all. It's not massively in the way, we can still hear what he's saying, it's just an annoying, constant distraction in the background. And because you've read this book, you immediately pipe up, "Geesh! Someone needs to noise gate this guy."

Remember our little audio compression man. Well he's here again. This time though, he has slightly different instructions. He starts with the volume tuned right down to zero, and he only cranks it up to full when he sees that the loudness is about to go over a certain threshold. This threshold is usually set very low, just above the noise you're trying to shut out. The effect we get is like a gate that only lets through sounds above a certain loudness, hence the name, noise gating.

Like audio compression, noise gating has to be used with understanding and can be overdone. We need to know its limitations. Firstly, noise gating is not noise removal. It's actually a bit of a fudge. Our little man is just turning the sound down when he can. When the loudness goes over the threshold and he turns the volume up again, the noise is still there in the background. Secondly, noise gating can sound strange if the volume is truly turned down to zero between thresholds. In practice, it is usually best to reduce the volume rather than zero it. On voice recordings with overdone noise gating, you get a kind of strange feeling between words, almost like the feeling you get up in an airplane when the pressure changes. It's almost like there is a vacuum between each word where someone has sucked all the air out of the room.

There is another factor we alluded to in the previous section about audio compression. Attack and release. This is the speed at which our little man cranks the volume and can be controlled by most good audio processing software. Like the volume reduction, this must not be too fast if we want to avoid our airplane/vacuum feeling.

Editing audio

```
Under construction...
with Audacity
removing unwanted bits
workflow - what order to do things in - normalise, compress, edit
phoneme surgery - interview with Ian Ozsvald
.....
```

Show mixing with Audacity

Tracks revisited

Because I'm so ancient, when I hear the word "track", I think of LPs⁷. When I use the term track here, I'm referring to the concept of separate audio recordings being arranged in separate tracks, with a liberal amount of overlapping, being played simultaneously to produce a pleasing show. For example, a typical show might start with a standard intro recording laid down in track 1, then a main segment laid down in track 2 that fades in as the intro fades out, then finally a standard exit, possibly on a third track, which fades in as the main segment finishes. As previously mentioned, Audacity creates a new track with each new recording event.

Getting your track levels in balance

There's nothing that irritates me more than listening to a podcast where one speaker is at a normal volume and the other is so quiet that you have to constantly adjust the volume. Even worse are music podcasts where the music is much louder than the talking, so much so that the volume of the

⁷ If you're too young to know what an LP is - bless you!

player has to be constantly adjusted. I have a test called the “street test” to measure this. If you can hear all the speakers equally well without deafening yourself while walking down a busy street, then the levels are about right.

My best advice is to observe the levels carefully while playing back. There's a knack to observing levels and getting a feel for what is right.

The Levelator

The \tool{The LevelatorLevelator is a free tool from the Conversations Network (<http://www.conversationsnetwork.org/levelator>), for, well, leveling out the loudness over the course of a recording. It has a really simple interface, you simply drag the file you want to levelate onto it.

The Conversation Network actually have a great page on their website about how the Levelator works. I'll try and summarise using our little man analogy. Here he is again sitting poised with his volume knob, but this time he's working in a very different way. Instead of looking at a continuous flow of the file as it is played to him, he has the luxury of looking at the entire sound file up front, several times in fact. He's contemplating, amongst other things, the general ups and downs of the loudness. He's very clever too. He takes into account all sorts of technical stuff like whether it's speech or music and ignores periods of silence. Now based on all this information, he goes through the file and tweaks the loudness levels in such a way that the perceived loudness over the entire file stays reasonably level. I personally am blown away that this tool is free - the guys at Conversation Networks really did a good job.

I find this tool invaluable. It's very useful in recordings where you have several people, some of whom are louder than others, and you want to level them out. Skype conference calls are a prime example of this. But you must know when to use it. Scenarios to avoid would include recordings with background noise, this is because the Levelator constantly tweaks the volume level, and background noise accentuates this too much which can be distracting.

expand...

Encoding to MP3

Expand this section

Although Audacity can encode to MP3 using the LAME library, I believe iTunes does a better job.....

Under the Options, in the General tab there's a section labeled When you insert a CD, here you will see a button labeled Import Settings.... Click this and under Import Using: select MP3 encoder. Under Setting: select Custom... then select 256 kbps for the Stereo Bit Rate.....

..Once you have done this, you can select any audio, then select Advanced → Create MP3 Version. iTunes will now encode the MP3 version in the background and afterwards it will appear next to the original version. It helps to have the Kind column showing so you can see which version is which. Just control click on the column headings and select Kind from the list, you can then drag the column into whatever position you want.

```
mix → export (bounce) to wav → encode to MP3 (iTunes) → tag (iTunes)....
```

iTunes also gives more options when it comes tagging.

The Importance of Meta Tagging

Our MP3 files are our babies. We carefully prepare and mix the audio, lovingly tweak the levels and generally do all we can to make them sound beautiful. Then we place them in a home with their siblings, overlooked by a fatherly RSS feed and nurtured by a wonderful website. Sometimes, however, our MP3 files may find themselves abandoned and all alone. Maybe they've been downloaded onto someone's computer or shared. Many people will download an individual MP3 and manually drag it into their media player. Once in this isolated environment, separated from it's RSS feed and website, the only source of information about it, is inside of itself, its metadata.

What is metadata?

Metadata is “data about data”. In this case the main data is the show itself, and the metadata is information like the title of the individual show, the name of the series, a description, the author, the episode number and even an

image. The MP3 format allows this information to be embedded in a special area of the file called the ID3 tags. Being part of the MP3 file, this data is available even if the file is away from home.

There is duplication of data (always a bad thing in the programming world) between ID3 and RSS and website - although WordPress can help reduce this as we shall see later...

You want your MP3 files to be self-contained, to have all the information in them anybody might need, especially information that might lead to some positive outcome from a marketing perspective. I like to include certain information in the description such as website URL, email address, calls to action.....

Under construction...

Tricks in iTunes

Under construction...

iTunes is a great way to tag our MP3 files. Select any audio, then hit Cmd+I on the Mac or Cntl+I on the PC, and up pops an information window. This has several tabs corresponding to different types of metadata....

```
vital:  
  title  
  episode number  
  author  
  description  
  album - podcast series name
```

A good tip to make your episode more iPhone friendly is to copy the Comments into the Lyrics area. When a podcast episode plays in the iPhone, the lyrics are displayed over the top of the image. As far as I know, this is the only way to see a description on the iPhone.

image - crucial

What iTunes is doing is updating its own metadata but also the ID3 tags in the MP3 file.

....

Images

Under construction...

Additional tools for the Podcaster's toolbox

These toolbox sections may go

Image editing software
iPhoto on the Mac
Adobe Photoshop Elements

Hosting & distribution: Getting it out there

So now we've got our first few episodes encoded as MP3 files - but how do we deliver them to the people?

Displaying podcasts on web pages

In my humble opinion, there is nothing quite so awful as seeing a link on a web page to a bare MP3 or video file.

```
This first section needs fixing or moving...  
  
% \section*{The true definition of podcast  
% ability to subscribe  
  
% \section*{hosting lots of space lots of bandwidth  
  
% audio  
  
% video
```

The host server

...same here

The importance of separate website and media file hosts

...

Podcast hosting companies

...

```
\begin{description}  
  \item[Libsyn]  
  \item[hipcast] http://www.hipcast.com
```

```
\end{description}
```

The RSS feed

...

Embedded flash players

...

1 pixel out player

...

JW Player

...

Yahoo player

...

Others

...

```
...end of section that needs work
```

Using Wordpress as your Podcast's Website

Call me boring and old fashioned if you want, but whenever anyone asks me what sort of website they should use for their podcast, I recommend WordPress, and specifically WordPress combined with the Podpress plugin.

Why?

WordPress plugins

WordPress has a plugin architecture, meaning that other developers can add specific functionality by writing code called plugins. These are optional, and simply add to the core functionality of WordPress.

Podpress

The Podpress plugin does:

- ▶ RSS feed creation with iTunes-specific tags and automated enclosure creation for media files
- ▶ Automated Flash audio and video player embedding. The flash players can be customised in terms of colour, position in relation to the post and in their basic appearance.

I've happily used this plugin for years despite that fact that I'm constantly hearing it isn't much good! I am aware that it went through a quiet period where it wasn't being kept up to date with the latest versions of WordPress. I've also heard people complaining that plugins should try to do too much - and I suppose that's a valid point. Bottom line though, I've never had any serious problems with it to date.

Podpress has 3 configuration pages:

complete

- ▶ Player Settings xxx
- ▶ Feed Settings yyy
- ▶ General Settings Path to media files. This defaults to XXXXXXXX, but as stated before, it's better to have your media files on a separate server to the web home. Once you've filled this in you can go about your business safe in the knowledge that Podpress will always know where to look for your audio files.

When creating a post, Podpress adds an Add media file button near the bottom. Click this and a section opens up with a few fields to fill in:

- ▶ Title (optional)] I usually just copy and paste the post title - which is the title of the episode
- ▶ Size] Providing you've got the file properly uploaded and named, it's safe to use the auto detect button here. It usually only takes a few seconds.
- ▶ Duration] Don't use the automated button to derive this - it takes ages and downloads a local copy of the audio file - bad. Better to manually type this in. Get the duration from looking at your local copy that you already uploaded to the server. If it's in iTunes the duration is one of the columns of information you can display. For the raw files on the Mac just select the file and the duration in minutes and seconds should be shown

as part of the file info. Right clicking then Properties in Windows should also reveal the duration of audio files. Linux?....

Bluberry Powerpress

Under construction...

Tweet This

Under construction...

tweet this gives a button to retweet the post (episode) <http://wordpress.org/extend/plugins/tweet-this>

TypePad

Under construction...

Can host podcasts - gives RSS feed

Additional tools for the Podcaster's toolbox

...

Wordpress

...

complete

How to interview

As previously mentioned, interviews are perhaps one of the most powerful and compelling forms of content. When I first started interviewing people, I was rushed, unintelligible, and generally rubbish - and that was on a good day. But I did have some energy which, I think, made them tolerable. Over time, I've got better and learned what works and what doesn't.

Lets dig in. I'll start off with some fairly mundane details, then, in true Andy style, leave the juicy stuff to the end.

Do your research

Yes, a bit boring but true. This does not mean spending hours and hours pouring over the Internet trying to learn every little thing about your guest. We can be smarter than that. Have a few goals and write a single page list - yes, you've guessed it, I love single page lists. Learn enough about your guest to make you feel comfortable talking to them. Here's a list of things you might want to learn about to get you started:

- ▶ Basic background facts, what they've done, what they're famous for
- ▶ Interesting things worth talking about
- ▶ Anything controversial - are there any *elephants in the room*? (see below)
- ▶ bar

Building rapport

It's a tricky thing to quantify, rapport. You need to get into a certain mindset before you start the interview. I always like to warm up my interviewee with a few casual remarks and questions mixed with a liberal helping of humour. A pre-interview chat, if you like. Ask open ended questions that cannot be answered with a simple "yes" or "no". Open up to them, if something a bit embarrassing happened on the way to the studio, let them in on the comedy. I

have found that opening up this way tends to quickly build trust and rapport. If you're conducting the interview over the phone you can even ask them what the weather is doing in their part of the world. Yes, asking about the weather is a good conversation starter - you can even make a joke about that fact that you asked - that usually gets a titter. Above all, have a feeling of good will and friendliness towards your guest.

I talk about listening next but it's worth mentioning here. If you truly listen to what your guest is saying, rapport will follow naturally.

Under construction...

Listen! No, I mean really listen

This was one of the biggest lessons I had to learn. I used to make the classic mistake of thinking up the next question while my guest was talking to me. Don't you do the same! Have a conversation. When your guest is speaking - listen intently, but in a relaxed way. If you truly care about your guest, the next part of the conversation will unfold naturally. To listen to someone, to truly listen and engage in my opinion, is one of the most profound forms of respect and love you can give. Sorry for the slight metaphysical vibe here - but I believe it to be true.

There is a listening skill which I discovered by accident that I think is useful when interviewing. Early on, try to find something your guest says that you can connect with and make a comment on. For example, I recently met a chap who works for a well known web agency in Brighton. He was talking about how internet marketing data can be presented as stories to the client. Finding this an interesting idea, I made a comment about how I liked this concept of turning boring data into stories, and how I felt it was a great way to present it in an understandable way to people. This had the following effect:

- ▶ He felt complimented - I had verified his point
- ▶ He eagerly wanted to talk more about it - this was the starting point of further conversation
- ▶ Rapport was instantly boosted, I had made a deposit into the rapport bank account

My big fo par

I once was asked to interview a young woman who was an authority on Social Media and such things. She was a regular speaker on the subject and a willing purveyor of knowledge. We chatted for a short while before I started the interview but I could tell something wasn't quite right. I just couldn't build any rapport with her. We started to chat and I was asking questions. As the interview was coming to a close, I asked:

"Tell me about this event that took place recently - how did it go?"

There was an awkward pause.

Then she said, "Well it never happened. There was not enough interest." By now it was clear she was annoyed and upset and I felt like a total idiot - which, quite frankly I was, because I had not done my research.

This idea of commenting on statements has further uses. Try to rephrase what your guest has just said in your own words. This does two things. First, it ensures you have understood what they meant. Second, it helps the listener to understand what they meant. If you didn't understand what your guest said, they will correct you, and your listeners, most of whom probably also didn't understand, will now get it. You are the representative of your listeners.

Now of course, remain practical, always have a list of bullet points you want to cover. But use them as a guide. The conversation must be natural and flowing. Be prepared to wonder off your list temporarily if the conversation takes an interesting turn. Your listeners will find this type of content immensely engaging.

Be yourself

Podcasting is all about honesty. Just be yourself. This means many things. When I first started podcasting, I was quite tense when I interviewed. I guess I was looking for an approach and I'll admit at times I modeled myself on other people. But slowly I learned to be myself and after a time I settled into my own style.

complete this...

Your listeners will appreciate you as you really are.....

You will develop your own style over time.....

Don't ignore the elephant in the room

fill in the dots!

I credit this one to my good friend Neil Cole who presents the World Rally on Dave. In his career, Neil has interviewed loads of famous and not so famous people on TV and radio. The *elephant* Neil refers to, is any really big, obvious, current thing about the guest that really ought to be discussed - even if it's a bit awkward - very much like having an elephant in the room would be. So for example, The trick is how you approach it. I feel you need to develop your own style, your own approach to tackling awkward questions. I use humour, the slightly facetious approach. Be careful with humour though, in the early days it got me into a few tight corners

How to talk from the heart

Complete this

Yes, I know this doesn't really fit into how to interview.....

The story of how I recorded my AdCast... I didn't have a solid approach.... I just set up the mic, started the recorder and started to talk.... this can work in the right circumstances....

Don't be afraid to hesitate

Take your time - you can always edit out overlong pauses later

Allow yourself the time to do loads of retakes - leave the mic up - go away and come back - make it a weekend project - just start by recording something, anything, then kaisen, come back and tweak, improve, re-record bits, keep listening to what you've got and make mental notes of what needs tweaking - take your time - you've only got to do this once then your message is packaged for eternity.....

Testing and troubleshooting

Finish intro

We don't live in a perfect world. Things often don't work as expected.....

I've listed here some of the most common issues I've come across....

Wordpress Woes

You may at times come across glitches in Wordpress, often caused by plug-in incompatibilities. While the plugin architecture of any platform gives power and flexibility, it does have an Achilles heel - forward incompatibility. This is where some plugins no longer work, or worse break the main system, when the main system is upgraded to a new version.

Fun with plugins

There is a standard troubleshooting technique that many seasoned Wordpress geeks swear by - the inactivate-all-then-reactivate-one-by-one-till-the-problem-comes-back technique⁸. As the long, hyphenated name implies, this is where we start off by inactivating all plugins then checking to see if the problem still persists. Hopefully at this stage the problem has gone away. If it remains then a problem with the Wordpress itself would be the most obvious explanation. Lets assume the problem has corrected itself, we now, one by one, reactivate each plugin until the problem comes back, incriminating the offending plugin. At this point it's a good idea to reactivate all the other plugins just to check the system still works. Having identified the bad plugin we can now double check by reactivating it to check that it breaks Wordpress. Often the problem can be resolved by upgrading the bad plugin to the latest version - if it is available otherwise, an alternative may have to be sought. A good Googling may reveal a workaround - if you've had the problem, there's a good chance someone else has too. Sometimes just tweaking some of the settings on a plugin can fix the problem.

⁸ Often abbreviated to IATROBOTTPCB - no it isn't, just kidding.

When Wordpress goes bad

If you still have issues despite this exercise, it looks like there is a more fundamental issue with the Wordpress installation. There is a common chant in the software support world, often accompanied with the enthusiastic gnashing of teeth - "but it worked yesterday - and I haven't changed anything!". In my previous life in software support, I've seen many unexplainable things including files that simply disappear, configurations change all by themselves and databases suddenly acquiring garbage where the data used to be. Stuff happens. Contrary to appearances, software setups are rarely static. Think about it. Your Wordpress installation may be on a machine running Windows or Linux. Both of these operating systems are regularly updated. Machines get rebooted, services sometimes don't get restarted. Domains don't get renewed, causing the URL to the site or database to break,

There's a lot of stuff that can happen outside of the Wordpress installation that can conspire to break it....

complete this

Feed Faffs

RSS feeds are what make podcasts podcasts. While extremely powerful, they can at times be infuriating. RSS feeds have a complex structure - praise be that most of the time they are created and maintained automatically for us by clever software such as Wordpress and Podpress.

It's always a very good idea to run your feed through a validator, there's a very good one at xxxxx

Under construction...

Using iTunes/Google Reader for testing

...

Under construction...

Part 3. Getting your podcast known

Measuring who's listening with Feedburner

It's one thing putting a podcast out there, but it's important to at least have an idea of who's listening.

What is Feedburner?

Feedburner is an RSS proxy. It stands in for your true RSS feed, taking requests and passing them on. It then takes the responses from the true RSS feed, enhances them and passes them back to the original requesters, which are non the wiser for the deception. It's a sort of front man for your RSS feed, making it look better than it really is. But this front man also takes copious notes of who is requesting, the time and the place. He also adds a bunch of information to the feed, specifically for iTunes, and provides some very useful tools for managing, analysing and even monetizing your feed. So in short, Feedburner is an RSS feed statistics gatherer and embellisher. Google acquired Feedburner in June 2007 and the service can be found at <http://feedburner.google.com>.

Feedburner tips and tricks

Feedburner provides loads of tools for optimising and publicising your feed. Here are the ones I find most useful.

Optimize

Under the *Optimize* tab.....

complete

SmartCast

Not content with the standard set of fields (tags) in the RSS feed specification, and in order to get best results, iTunes requires a bunch of iTunes-specific

tags. Feedburner adds these when the *Smartcast* feature is activated. It's worth becoming familiar with these iTunes-specific tags, or at least the important ones. There's a whole tome of information about them on the Apple website at <http://www.apple.com/itunes/podcasts/specs.html#rss>.

BrowserFriendly

Makes your feedburner URL render nicely when viewed in a browser. Can add a message and control how items are listed.

SmartFeed

Automatically converts your feed into different format depending upon the requesting RSS reader

FeedFlare

Allows you to select various social bookmark helpers to appear at the bottom of posts both on the feedburner URL and, if you embed the supplied HTML code, on the home website. Not needed on the home website if using WordPress - there are WP plugins which do a similar job.

Publicize

Under construction...

Chicklet Chooser

Provides HTML for RSS subscribe chicklet to embed in your site

Creative Commons

Under the Publicize tab. Adds appropriate Creative Commons tags to your feed.

Deploying Feedburner

You'll need a Google account. Go to <http://feedburner.google.com> and follow the instructions to set up. Create a feed and point it at your original feed. If you're using WordPress, the default feed URL will be <http://www.your-podcast-home-site.com/?feed=podcast> You can create multiple feeds.

needs expansion...

Encouraging an interactive following

I was recently listening to Leo Laporte's "The Tech Guy" podcast when one of his listeners, a young chap who had just launched his own podcast, asked him for advice on how best to promote it. Leo explained how in the old days networks used to think in terms of "audience", but now, podcasters should think in terms of "community". Rather than a passive audience, we want to encourage a rich, vibrant community where interactions and relationships occur both between members and with the podcaster.

And it's not just podcasters that need to think this way.....

Under construction...

Top ways to encourage interaction

Podcasting is all about getting a multi-way conversation flowing as soon as possible. Working the following components into your show will reap dividends in the interaction stakes.

People love to give opinions

During your episodes, there will probably be lots of times when you state a view or opinion on a topic, or raise questions about a certain subject. Try to get into the habit of encouraging your listeners for their opinions when this happens. Asking questions of your listeners generally is a very good thing to do as long as you're specific.

Mention the ways they can do this such as a telephone number or comments on the blog. It's a good idea to quickly mention the topics that require opinions at the end of the show and don't forget to mention the channels of feedback here too.

Under construction...

Surveys

surveys

competitions

inviting listeners stories

airing all this feedback

The mechanics of feedback

Comments

Email

Voicemail

Audio feedback

The mechanics of community interaction

blogs with comments

forums

Whole chapter Under construction...

Promotion - Getting your podcast known

In this chapter I'll talk about various techniques to spread your podcast far and wide and increase it's findability and sharability.

The home website

Lets start at home. All podcasts should have a home website.....

Under construction...

RSS auto discovery tags

When visitors are on your site, you want to do everything you can to make it easy for them to subscribe to your podcast. Many browsers now support RSS auto-discovery tags. These are special HTML link tags in the head section of the web page that refer to any RSS feed URLs relevant to the site. There are often two, one for the blog and a separate one for the podcast. Browsers that support this feature then display an RSS icon in the address bar, usually at the end of the current URL. Clicking on this will reveal a list of RSS feeds and descriptions to choose from.

The importance of metadata

Under construction...

What's on the web page near it?

Under construction...

Show Notes and Transcriptions

Under construction...

iTunes

iTunes has been described as the 800lb gorilla of podcast directories. Of course it's also a media player, music store and Apple device synchroniser. It has to be the first place you submit your podcast to once you have a few episodes under your belt.

complete

Zune market place

.... for some very odd reason, despite several attempts, I've never successfully been able to submit a podcast to the Zune market place.

complete

Podcast directories

...

Transcriptions

...

Business cards

Yes, that's right, business cards, the cardboard type.

Email footers

...

Twitter tweets

...

Finish these sections

Repurposing

Repurposing is all about taking content of one form, and translating it to other forms. For example, a podcast episode can be transcribed into text or, with the addition of a few images and some video editing, can be made into a slideshow video. It's a good idea to place your content into as many different media types as possible;

expand...

the different forms of media each give different opportunities to be found by people searching for your topic. Take Youtube for example. It has become a huge search engine in it's own right stats , so placing video content there can yield a large exposure. Jason Van Orden suggests creating articles from your transcriptions, and distributing these to the various article sites.

Promotion Checklist

% Jason VanOrden has a great one \cite{vanorden2006} and Dave Jackson has a great training resource \cite{website:schoolofpodcasting}

Additional tools for the Podcaster's toolbox

...

Zune Marketplace software

...

Finish these sections

Part 4. Some general musings

A little history lesson - how podcasting got started

Get the facts and complete

MP3

...

Dave Wiener

...

Adam Curry - the true Podfather (see, it's not me!)

2000 David Wiener - implemented enclosure tag in RSS 0.92

Feb 2004 - The term podcasting suggested by Ben Hammersley

June 2005 iTunes added podcasting

Why podcast?

Audio and video podcasting gives businesses and individuals some unique benefits that complement more traditional styles of web content. Lets talk about those now.

Podcasts already tend to have some implicit, positive outcomes provided you have not committed any cardinal sins. They tend to promote the listeners' perception of you as the expert, the authority or thought leader on your chosen subject. They also tend to cause a building of trust towards you as the relationship between podcaster and listener develops. Site Visibility, for whom we produce the Internet Marketing podcast have received many a call starting "I've been listening to your podcasts, and you seem to know what you're talking about..."

Statistics & Trends

Under construction...

Authority

Under construction...

Brand recognition

- * Brand recognition within a particular audience.
- * You get an elevator (not sales) pitch every week for 20 mins
- * Ideal fit: small biz 3-5 employees - solopreneurs with something for hire - they are their own brand - unless not charismatic enthusiastic don't like talking not passionate
- * Great for answering common questions - talk to the dentist dot com
- * Little competition in iTunes search

People will trust you

Giving freely through a podcast brings kudos and trust, and builds a very personal type of communication channel. To your listeners, you'll become a company of human beings and a trusted advisor. As part of the buying process, most people do a certain amount of research, they want to ascertain your motives and know who they're dealing with. But they'll get all that from your podcast. They'll see that you're very knowledgeable and generous, and for many people it will make sense to hire you rather than go through a lot of research. Most people will be thinking, "If I ever need this, I'll go to these guys". For a company with a podcast, your prospects get a chance to meet you before they step into your office. They get as much time as they want to get to know you - there's no pressure.

I met a successful podcaster recently who presents a technology show for a well known newspaper. During our brief chat I asked her how she was received generally by listeners when she met them. "When I meet people", she said, "they often say they feel like they already know me". I recall on a number of occasions, meeting smiling listeners of the Internet Marketing podcast who told me exactly the same thing.

You can stop being all salesy

When your prospects call, there will be no sales pitch. They will have already made the decision to hire you before they walked into your office. They will have already formed a relationship with you and understood what you could offer. A seasoned podcaster I know mentioned that a few times people who find him outside of his podcast, call to grill him and see what he can offer, to interview him essentially. He suggests to them (very nicely of course) that they listen to a couple of episodes of his podcast, then if they feel he can then help them and like his style, to call him back. He hasn't had to actively sell to prospects for about two years.

A podcasting dentist in the USA says, When patients come in, they've already selected me. If they don't like me, they're going to know that before they come in.

When they arrive they're accepting of what I am and are ready to buy. A patient came in who needed a root canal. I said "Let me tell you what I feel about root canals", she said with a smile, "Stop! I already know what you think about root canals from your podcasts".

With a podcast, you can truly put yourself out there in a way that's natural for you without having to be at all pushy.

Podcasting can make you famous

One afternoon, when Internet Marketing had been going for about 12 months or so, a telephone enquiry was received at Academy Internet.

"Just one moment, let me put you through to someone who can help with that", and passed the call through to Daniel Rowles, my co-host at the time.

"Hello. Dan Rowles, how can I help?"

There was a pause, then, "Dan Rowles. THE - Dan Rowles!?"

Differentiate yourself with you're greatest asset - your true personality

In a podcast, what will come across is you. You're putting yourself into the mix and because you're being authentic, you are unduplicatable. You're telling them who you are. No other competitor can take that away from you - they can't be you.

Stand out from the crowd

Although podcasting is coming of age now, there are still not that many businesses doing it. If you do have a podcast, you're making yourself stand out from the crowd. One of my clients is a garage owner. One day he was contacted by a professional motoring organisation, this wasn't a huge surprise as he had been a member for years. But they wanted to do a feature on him and his garage in their publication - because he was the only member

who had a podcast. There's an interesting twist to this story as well - his original motivation for having a podcast wasn't even to promote his business, that was secondary. His primary motive was the passing on of knowledge and the pure fun of doing it! Having a podcast can bring it's own unforeseen opportunities.

Save time

In business, we often find ourselves repeating the answers to commonly asked questions. A podcast is great for answering these. Commonly asked questions also gives you an almost limitless supply of topics. Many a time when confronted with a query from a client, you will think, "what a great topic for the podcast!". You can then direct your clients to your podcast and website for information - then have another consultation if they have any further questions. Very efficient.

A business consultant I know told me that she used to give free 40 minute taster sessions to her prospective clients. Many times this would lead to her solving the client's problems who would then thank her and disappear for good. To remedy this, she made a podcast featuring highlights of some of her sessions with consenting clients. She now directs many of her prospects to her podcast in order for them to see if her style would suit them, saving her and the client time.

Unify your staff

We all want our internal staff to be on the same page....

We tell them to listen to the podcasts. It's difficult to find training time so the podcasts are great. The employees appreciate it too. These relationships with our employees are vital....

Under construction...

Some final thoughts

* Brand recognition within a particular audience.

- * direct communication with a focused audience
- * establish your business as a leader or expert in your industry
- * portable - ppl listen on the move
- * You get an elevator (not sales) pitch every week for 20 mins - you have permission to their ears for 20 mins a week
- * Little competition in iTunes search

Its a subtle, magnetic approach, where people voluntarily come to you of their own free will....

What's stopping you?

I set up some online surveys before starting this book and one of the questions I asked was, “What would you say is the one thing that has prevented you from starting your own podcast?” I got about 66 responses and I have categorised them here.

I don't have the time

By far, this was the biggest inhibiting factor with about one third of respondents alluding to time constraints of one form or another. If it wasn't the amount of time involved, it was the management of time that was a concern. Respondents would often mention the time taken to climb the podcasting learning curve, or mention the time taken to do a specific step such as script writing. Many business respondents wondered about the financial justification of the time spent both learning how to podcast and actually executing the production. To summarise, there was a general feeling that podcasting involved a lot of work and that there were other higher priority activities.

In some ways, a feeling of a lack of time can be a signal that some other factor is in play. I assume I'm a normal human being, although some people would disagree, and I sometimes find myself declaring that I have no time for a thing when I'm not sure exactly what it involves. I sometimes get people calling me saying that they feel they ought to do a podcast, feeling a need to keep up with the digital marathon march. That awful word “ought”, implies unwilling obligation.

I think the key here is mindset, and, dare I say it yet again, passion. I'm ready for the angry, torch bearing crowds gathering outside my house, so I'll say what I believe to be true. If your passion is big enough, the time excuse will tend to become less relevant.

However, there are some practical things to ponder when you find yourself thinking you don't have enough time:

Once you publish a podcast - it's usually there forever

A properly published audio podcast can be listened to by anybody, doing anything (within reason), anywhere, 24 hours a day, 7 days a week - and you don't even have to be there, or awake. What could be more time efficient than that? One of the most successful episodes of Internet Marketing to date, has been downloaded a total of 15,600 times to date. Lets be pessimistic and assume it got 7,500 full listens. It took me about 5 hours to produce that 30 minute show, and we got about 3,750 hours of one to one air time. Also consider that the episode is now downloaded on average 10 times a day, so that one to one air time gains another 2-3 hours each day - regardless of what I or the client are doing. We've all heard the phrase "passive income", well I call this "passive publicity".

Was the 5 hours of production time, worth the 3,750 hours (growing by another 2-3 hours each day) of one to one air time? You decide.

And I can hear you now saying that your podcast will take time to become "popular", or may not even become so. So let's reduce the numbers by a factor of ten. Would 5 hours of production time be worth 375 hours of one to one exposure, growing by another half hour every day, forever? Thought provoking indeed.

I don't know where to start

Many people had a general fuzziness on the approach to producing a podcast. These broke down into confusion of selecting a topic and lack of knowledge in the technicalities of producing a podcast, often compounded by a perceived lack of time. Sometimes, confusion was about specific details such as publishing formats. A common concern was coming up with a clear outline of what to produce, of having too many ideas. People wanted a step by step guide.

expand . . .

You need to have a strategy - a plan....

When I start a new podcast, the actual procedure is something like this. A podcast idea → some preliminary episode ideas → some planning → a couple of pilot episodes → a re-think → a bit more research → another pilot → set up the series now that I'm happy with it → find music and get artwork done → tweak the pilots to make them the first two episodes → proceed with more episodes → submit feed to iTunes and directories.

A good start is to think in a certain way about the whole process. But as I've said before - if you have a great passion and a willingness to learn - these issues can fade away.

Can I overcome the technical hurdles/intimidation of the tech/ lack of tech knowledge

this might blend with previous point.....

I don't know what to podcast about

passion passion passion

I'm not sure how much it would benefit my business

see above

I don't like the sound of my voice

you will

Not sure if people would be interested in what I have to say

research

I don't have a studio

it doesn't have to cost a lot to set up a studio

dont need sound insulation

use right microphones

Not sure if it would be good enough production quality/I can't afford the equipment

can start on a shoestring

an acceptable level can be achieved with one SM58, a pop filter and an interface - about £270, assuming you already have a computer.

incremental improvement

Some no-brainer podcasting tools

One morning back in 2007, I recall having a chat with my accountant about where my business was going. He said some words that have remained with me to the present day⁹, “You now need to come up with some killer tools for podcasters and you could be wealthy, very wealthy!” Well, guess what, I didn't, but these folks might have:

Audioboo

Launched in March 2009, Audioboo (<http://audioboo.com>) is an online, audio blogging platform, with corresponding iPhone and Android apps. If there is any de-facto lightweight audio podcasting solution - this must surely be it. In essence, Audioboo takes audio content and presents it against your account with a nice player, a photo, title and a dedicated RSS feed. The iPhone and Android apps allow you to quickly record an audio of up to 5 minutes, add a photo, and submit it with one click or tap. The Audioboo website now also allows recordings to be uploaded directly, whether these be pre-recorded or made at the time on the machine.

I'm not sure if anyone has officially coined the phrase guerilla podcasting, but Audioboo should probably be crowned for being amongst the first to make it possible. I'll freely admit, when Audioboo first came out, I had a quick go, did a few silly recordings to test it out then backed off. I guess the childish side of me resented this cheeky little upstart which had swaggered in and made podcasting a record and click affair. Silly me. I'm happy to say I have since evolved, and I am now just getting into Audioboo properly. Check out my friend, Christian Payne (documentally), who has really embraced Audioboo - if you want to hear just how cool and spontaneous podcasting

⁹ Yes, accountants can occasionally do this when atmospheric conditions are right.

can be, Christian's boos are a good source of inspiration. I talk about them later.

Audioboo state that storage is unlimited, as long as it's own audio content.

Posterous

Posterous (<http://posterous.com>) allows you to email text, photos, videos and MP3 audio files to make a blog entry, complete with RSS feed, and a nice flash player for the audio. Like Audioboo, this mitigates the need for all this RSS and HTML faffing. Signing up to Posterous gives you a subdomain of your username, such as <http://doctorpod.posterous.com>, but since August 2008, you can point any domain to your Posterous account.

Posterous has an autopost feature that can automatically repost your content to Facebook, Twitter, Flickr and other blogs.

Storage?

finish

Typepad

Typepad (<http://www.typepad.com>) is worth a mention as it has added the email posting feature seen in Posterous.

Is this real?

Under construction...

Commentaries on podcasts I know

Being an avid podcast listener I'll share with you a few great shows I've come across. There's always a slow churn of podcasts on my list, so forgive me if some of these have gone away. I always encourage podcasters to listen to as many other podcasts as possible - they can be a great source of inspiration and ideas. This is only my opinion - I'm absolutely sure you could list tens more:

TWIT (This Week in Tech)

This is actually a podcast network founded and hosted by Leo Laporte. Leo produces over 14 individual shows under the TWIT banner. My current favourites are Security Now with Steve Gibson, The Tech Guy and This Week in Google. Leo's roots are in traditional broadcast media. The production quality is high and Leo's presentation is very traditional - and superb.

The website for TWIT is <http://www.twit.tv>.

Security Now

In this splendid podcast on IT Security, Leo co-hosts with security expert and pundit, Steve Gibson (<http://grc.com>). The episodes follow a rotating pattern: 3 topic shows, then a questions and answers show (the mod 4 show as Steve calls it). There is a dedicated page on the TWIT website at <http://www.twit.tv/sn>.

The Tech Guy

This podcast is a nice example of repurposing, it's produced from a radio show that airs every weekend in over a hundred US cities and on XM Satellite Radio. The show structure includes commentary on anything tech (anything with a chip as Leo describes it), interspersed with calls from listeners asking questions. There are also feature segments where Leo chats to

regular guests including Scott Wilkinson from Home Theater Magazine who is an expert on home cinema technology. The podcast features on the TWIT website at <http://www.twit.tv/ttg>, but there is also a dedicated website at <http://techguylabs.com>.

This week in Google

A round table show where Leo is joined by Gina Trapani, Jeff Jarvis, and various other guests. Listen to this show if you want a great example of what can be done with Skype; as far as I can tell, all his guests come in over Skype.

Mysterious Universe

Hosted by Benjamin Grundy and Aaron Wright.

Here is an example of someone who podfaded, and then came back about a year later much to the delight of his huge and raving fan base. This is an very well produced show which makes full use of music. The current format has two hosts and is structured as a series of news stories and articles covering the paranormal interspersed with short musical breaks. Some shows feature an interview which may take up a large proportion of the show, and these are broken into segments separated by music.

The website is <http://www.mysteriousuniverse.org>.

The Survival Podcast

This is primarily a car cast hosted by Jack Spirko on a daily basis during his 50 mile each way commute between Arlington and Frisco, Texas.

Website: <http://www.thesurvivalpodcast.com>.

Get-It-Done Guy's Quick and Dirty Tips to Work Less and Do More

Hosted by Stever Robbins (The Get-It-Done Guy)

Under construction from here to end of chapter...

The Podcast Sisters

Hosted by Krishna De, Anna Farmery and Heather Gorringe.

Website: <http://www.thepodcastsisters.com>.

Rails Envy Podcast

Hosted by Jason Seifer.

Website: <http://railsenvy.com>.

School of Podcasting - Learn To Podcast

Dave Jackson, who produces and hosts this podcast, has a really nice approach. Very relaxed but informative, Dave is very good at explaining difficult concepts in a way that non-technical people can understand. The thing I really like about Dave is his total honesty and transparency. If he fluffs up during a show - he'll make a joke about it and move on.

Website: <http://www.schoolofpodcasting.com>.

Podcast Answer Man

Produced and presented by Cliff Ravenscraft. Here's another guy I have a ton of respect for. Cliff is a podcaster, and a podcasting consultant based in North Kentucky, USA. At the time of writing he produces about 10 individual podcast series of his own.....

<http://podcastanswerman.com>

Documentally's Boos

Christian Payne, aka Documentally, uses Audioboo to make regular short podcasts. You can specifically reach Documentally's page on Audioboo at <http://audioboo.fm/Documentally>, and there is an RSS feed to subscribe to.

I think we can all learn from Christian's interviewing technique - there's a naturalness and ease that makes it very easy to listen to. These illustrate the power of using something like Audioboo to quickly produce short, impromptu podcasts, if you don't mind having the Audioboo branding rather than your own.

complete this chapter

How podcasting fits into the bigger picture

In a bazaar way, this chapter is the most important of all. Why do I say this? I am an audio geek, I live and breath sound, recording and audio, I am an Internet Marketer second to this. I could have approached this book from a very different angle; a much more content creation, traffic attraction angle. In fact, at one stage, I was thinking of re-writing large parts of the book to re-slant the approach. In the end though, I decided to keep it as a guide focussed on audio podcasting. In this chapter we'll discuss where podcasting sits in this bigger picture of Internet marketing.

When I was writing this book, this chapter was nestled quietly towards the end,

I decided it was so important that I brought it right up front. I felt it gave a good background on where podcasting sits in the bigger picture

A form of social media

Permission marketing

Under construction...

Traditional Internet Marketing

I can almost hear you sniggering at the idea of anything to do with the Internet as being traditional. But there was a kind of pivotal point in its history that happened over a period of about 18 months in the early naughties. This was Web2.0, mention of which now tends to bring rolling eyes and subdued tuts. For web historians, however, it's an important and revered thing. The World Wide Web changed and became much more - well - like not being on the World Wide Web. Something called AJAX

(Asynchronous Javascript and XML) appeared and helped websites become more responsive and to behave and look more like desktop applications.

Interaction on the web became more commonplace, communities became better defined, and new ones grew up. The expectation of Web experience changed dramatically. Around this time, podcasting as a channel, started to gain momentum, helped in part (and possibly greatly) by Apple's iTunes and the iPod.

Early Internet adopters were an interesting race, pale skinned and relatively hairless, but often with long beards and tank tops which looked like TV interference. The rest of the human race had already started to join in since the late 90s, but Web2.0 brought yet more normal humans to the web. Aided by broadband expansion programs from governments around the world - they came in droves. As I write this in June 2010, it is an accepted statistic in the UK that many kids now spend more time on the web than watching TV, and great fiber-optic data channels have just made their way down both coasts of the great African continent. Lord knows what the next decade will bring.

It is in this flatter, more subdued version of the web, before the Web2.0 revolution, that traditional Internet Marketing has its roots....

Finish...

SEO - structure - keywords

PPC

Link baiting

Email lists

The alternative universe of podcasting

Attractive, useful content

Multiple channels - audio, video, text

Repeat exposure - episodic

Mobile consumption

Personal communication - trust

Voluntary subscriptions - people come to you

Traditional broadcasting

broadcasting vs narrowcasting

Some thoughts on backups and archives

As podcasters, we regularly produce some pretty big files. Remembering a typical *.wav* file comes in at about 10MB per minute, it's easy to see how our disks can start to fill up when we're recording 3 or 4 half hour interviews each week. If you think we have it bad, pity the poor video podcaster. Our video editor regularly emits files exceeding 2GB; it's almost embarrassing. To make matters worse, many of these files languish, forgotten in the dark corners of our hard drives never to be visited again once the episodes they formed a part of have been published. In the name of disk space husbandry and sanity, something has to be done.

It's very important to understand the difference between archives and backups. To do that, we need to understand our two main needs, these are:

- ▶ A way of ensuring that if something goes wrong, we can retrieve all the data that's important - backups help here;
- ▶ A way to move old stuff off our hard disks to free space, but to find and retrieve it easily if we need to - archiving is the answer here.

Backups

At it's most basic, this is making at least one copy of your important data somewhere off your machine. Ideally you'd have more than one copy geographically located in different places. A good plan is to have a local backup somewhere on the network as well as an offsite backup. This is important because we need a way to quickly restore our big files from our local backup, as well the security of having a backup off site. Many companies now offer off site, automated backup. Take a look at Carbonite (<http://www.carbonite.com>), and Crash Plan (<http://b4.crashplan.com>).

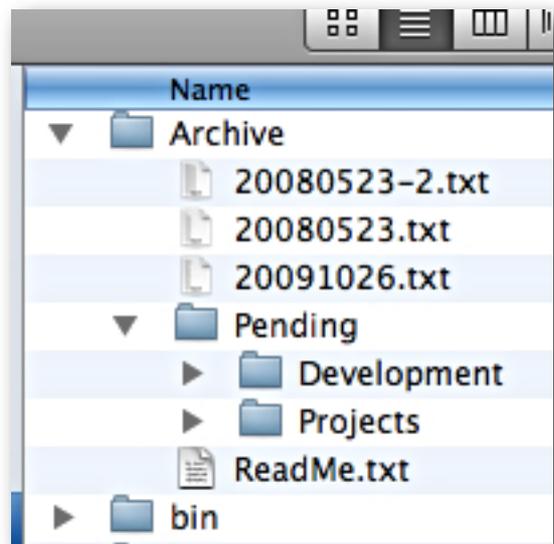
Crash Plan is particularly nice, as it allows you to backup up to multiple destinations simultaneously.

Because we work with relatively bulky files, it's important to make a clear distinction between what can be archived away, and what we're working on at the moment. We only want to be backup up the currently active set of files, safe in the knowledge that all previous work is safely archived away from our hard drive. Lets cover how we can separate old projects away from current ones.

Archives

The essence of archiving is storing away of older files that are unlikely to ever change again. These are old projects and episodes from long ago. \kc{Active files = backup; old files = archive. Let me tell you about the archiving strategy I use on my MacBook, although it would also work on Linux, and I'll show you how to achieve the same on Windows.

I have an Archive folder directly in my home folder. Inside that I have a Pending folder. As I identify stuff that needs to be archived, I move it to the Pending folder. I like to preserve the folder hierarchy of stuff I'm archiving, because it makes more sense when you come to search for things later (that's why you can see those Development and Projects folders). Every so often I check the size of the Pending folder, (select folder, Command-I), and when it approaches the golden size 4.7GB I know its time to burn another DVD pair. Now here comes the nice part. In order to make it easy to find stuff later we need to make an index. To do that I use the find command to make a list of all files in Pending and redirect the result into a text file. In terminal just type:



```
cd Archive/Pending
find . > 20091113.txt
```

Notice I name the text index file with today's date; that's also the name I'll give to the archive, I then copy it into the root of my Archive folder, so I have a growing list of index files there. At this point I burn the content of Pending onto two DVDs, label them with the same name as my index file, keep one DVD in the office and take the other home. Then I purge the contents of Pending ready for the next archive.

You can achieve the same in Windows with the recursive dir command. At the command prompt type:

```
cd Archive\Pending
dir /s /b > 20091113.txt
```

If I suddenly need to find a file or folder that I've previously archived, I use the grep command on my index files. Say I need a file called "ninja02.wav", in terminal I type:

```
cd Archive
grep "ninja02.wav" *.txt
> 20091026.txt:./podcasts/2006/061109_dSCAPE/tue/ninja02.wav
```

The output from grep includes the file containing the found search string at the front. So we can see that the DVD we need is the one labeled 20091026. Grep also allows wild card searches, for example:

```
grep "*.bak" *.txt
```

would find all files and directories ending in *.bak*.

For Windows users.....

Under construction...

On the subject of backup, possibly contrary to initial thought, it makes sense to backup the Archive folder because files waiting to be burned to DVD still need to be protected - because they have not yet been archived.

Archive storage media

There is the question of what storage media should be used....

I currently use DVDs. These are not ideal though. They only store 4.7GB and there is some question about long term stability of the medium.

WORM (Write Once, Read Many) drives

Leo Laporte uses hard disks - big capacity - easy storage - still need multiple copies - disks are cheap now - quick to write and read, no hassle

Another solution might be the Drobo from Data Robotics Inc, (<http://www.drobo.com>). This is a hardware storage device into which you can insert up to four disks of your choice. The Drobo cleverly shares the data across the disks redundantly in a way similar to RAID. If a disk fails, no data is lost and the failed disk can be replaced on the fly - the Drobo quietly incorporates it into the array as if nothing had happened. A simple arrangement of LEDs indicate health and remaining capacity for each disk.

But still one single point of failure though

Under construction...

Appendices

Podcasters toolbox complete list

Under construction...

Recommended microphones

Great for starting off

- ▶ Blue Snowball
- ▶ Samson C01U
- ▶ Shure SM58

For the more advanced podcaster

- ▶ sE Electronics 2200T or 2200E
- ▶ Heil PR40

...there are others!

Hosting companies

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Music Sources

- ▶ Magnatune <http://www.magnatune.com>
- ▶ Music Alley <http://www.musicalley.com>
- ▶ Music Bakery <http://musicbakery.com>
- ▶ Opuzz <http://www.opuzz.com>

keep going!

Produce podcast episode workflow

This assumes you will be working with Audacity and WordPress...

Create and Record

- ▶ Define subject and create script bullet points
- ▶ Record segments (Section \ref{sub:audacity_all_platforms})
- ▶ Edit recorded segments (Chapter: \ref{cha:recording_into_shape})
- ▶ Mix into a show (Section \ref{sec:show_mixing_with_audacity})
- ▶ Save as MP3 (Section \ref{sec:encoding_to_mp3})
- ▶ Tag MP3 (Section \ref{sec:importance_of_meta_tagging})
- ▶ Upload MP3
- ▶ Promote - see promotion list

Publish to WordPress website

- ▶ Log into your WordPress site - you will be at the Dashboard
- ▶ Click Posts → Add New - you will now be on Add New Post page
- ▶ Enter a title
- ▶ Enter a body
- ▶ On right hand side, under Categories, select any relevant categories for this episode
- ▶ Scroll down to the section named Podcasting Files and click on the Add Media File button
- ▶ In Location enter the full name of the podcast file including the file extension
- ▶ In Title copy and paste the title of the post that you entered in step 3

- ▶ In Size click the Auto Detect button - after a few seconds a big number should appear in the field
- ▶ In Duration manually type in the duration from the Google doc in the MM:SS format, eg: 14:23 means 14 minutes, 23 seconds
- ▶ Scroll back to the top and click the Publish button

Under construction...

Podcast series checklist

TODO Under construction...

- ▶ Outcome statement written (Section \ref{sec:outcome_statement})
- ▶ Passion identified
- ▶ Approach, formats and show structure established
- ▶ Message established
- ▶ Keywords listed
- ▶ Great title written
- ▶ Series description written
- ▶ Intro and exit recorded
- ▶ Hosting set up
- ▶ WordPress site set up
- ▶ Feedburner set up (Section \ref{sec:deploying_feedburner})

Podcast episode checklist

Under construction...

- ▶ MP3 file encoded at the same bit rate as others within the podcast series
- ▶ Data embedded into MP3 - title, track number, album (podcast series title), description, copy description to lyrics (to show up on iPhone)
- ▶ Description includes authors contact details, company details (if relevant) and URL of podcast website
- ▶ Artwork embedded into MP3 - 300px square
- ▶ File name mirrors episode title - use hyphens and omit “noise words” such as “the”, “it”, “a” and “at”
- ▶ Episode details added to podcast website
- ▶ Episode written to RSS feed - automated if using WordPress as the podcast website
- ▶ RSS feed tested - allow time if Feedburner is being used as an intermediary

Podcast directories

- ▶ A Podcast Like That <http://www.podcastlikethat.com>
- ▶ All Podcasts <http://www.allpodcasts.com/Update.aspx>
- ▶ AmigoFish <http://www.amigofish.com>
- ▶ Blinkx Video Directory <http://www.blinkx.com/rssupload>
- ▶ Blog Catalogue http://www.blogcatalog.com/blogs/submit_blog.html
- ▶ Blog Explosion http://www.blogexplosion.com/members/podcast_main.php
- ▶ Blog Top Sites <http://www.blogtopsites.com/register.php>
- ▶ Blog Universe <http://www.bloguniverse.com/>
- ▶ Blogarama <http://www.blogarama.com/add-a-site/>
- ▶ Bloggernity <http://www.bloggernity.com/cgi-bin/add.cgi>
- ▶ Every Podcast <http://www.everypodcast.com/add.php>
- ▶ Get A Podcast <http://www.getapodcast.com/AddFeed.aspx>
- ▶ Globe of Blogs <http://www.globeofblogs.com/register.php>
- ▶ iBiz Radio <http://www.ibizradio.com>
- ▶ IceRocket <http://www.icerocket.com/c?p=addblog>
- ▶ Idiot Vox <http://www.idiotvox.com>
- ▶ iTunes n/a
- ▶ MediaFly <http://www.mediafly.com>
- ▶ Mevio <http://uk.mevio.com/>
- ▶ Mirpod <http://www.mirpod.com>
- ▶ Mobilcast <http://mobilcast.com>
- ▶ MyPodcastDirectory <http://www.promopicker.com>
- ▶ Odeo odeo.com
- ▶ Plazoo <http://www.plazoo.com>
- ▶ PodBlaze http://www.podblaze.com/directory_submit.php
- ▶ Podcast Alley <http://www.podcastalley.com>

- ▶ Podcast Blaster <http://www.podcastblaster.com/directory/add-podcast/>
- ▶ Podcast Directory <http://podcastdirectory.org>
- ▶ Podcast Exchange <http://www.podcastexchange.org>
- ▶ Podcast Planet <http://www.pod-planet.com>
- ▶ Podcast Pup <http://podcastpup.com>
- ▶ Podcast.net <http://www.podcast.net/addpodcast>
- ▶ Podcasting Station <http://www.podcasting-station.com>
- ▶ Podfarm <http://www.podfarm.co.za>
- ▶ Podmopolis <http://www.podmopolis.com/submit.php>
- ▶ Podscope <http://www.podscope.com/submiturl.php>
- ▶ Premium Cast <http://www.premiumcast.com>
- ▶ Stumble Upon]
- ▶ Vital Podcasts] <http://www.vitalpodcasts.com>
- ▶ Yahoo RSS Media Search <http://search.yahoo.com/mrss/submit?>
- ▶ Zune Marketplace]