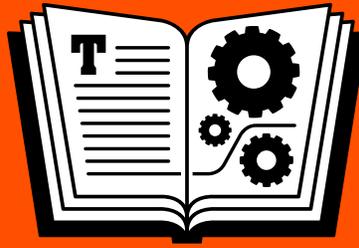


EBOOK EXTRAS: v3.1
Downloads, Updates, Feedback



TAKE CONTROL OF
PODCASTING
ON THE MAC

by **ANDY AFFLECK**
\$15

3RD
EDITION

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Read Me First

Welcome to *Take Control of Podcasting on the Mac, Third Edition*, version 3.1, published in August 2016 by TidBITS Publishing Inc. This book was written by Andy J. Williams Affleck and edited by Geoff Duncan, with help from Tonya Engst.

This book gives you all the information you need to begin your first podcast quickly and inexpensively both by suggesting Mac and iOS software and hardware for good results and by teaching you how to use it.

If you want to share this ebook with a friend, we ask that you do so as you would with a physical book: “lend” it for a quick look, but ask your friend to buy a copy for careful reading or reference. Discounted [classroom and Mac user group copies](#) are available.

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Basics

Here are a few fundamentals that will help you read this ebook:

- **Links:** All blue text in this ebook is *hot*, meaning you can click (or tap) it, just like a link on the Web. If you click a link that takes you to a different part of the ebook, you can return quickly to where you were if your ebook reader offers a “back” feature. For example, if you use iBooks to read the EPUB version of this ebook, you can click the “Back to” link at the lower left. Or, if you use Preview on the Mac to read the PDF version of this ebook, you can choose Go > Back or press Command-[.
- **Menus:** Where I describe choosing a command from a menu in the menu bar, I use an abbreviated description that puts the name of the menu ahead of the command. For example, at the end of the previous paragraph, “Go > Back” means “choose the Back command from the Go menu.”

What’s New in Version 3.1

This new version was largely inspired by changes in Audio Hijack 3, and you can read all about them in [Record with Audio Hijack 3](#) and [Record Calls with Audio Hijack 3](#). Other interesting changes are these:

- Ecamm’s Call Recorder now has a FaceTime version along with the Skype version. I have updated [Record Calls with Call Recorder](#) accordingly.
- I added several [Sound Samples](#) from additional mics and mixers.
- I added a photo and description of a dedicated digital recorder in [Consider a Dedicated Digital Recorder](#).
- I updated the details about hosting services in [Host Your Podcast](#).
- I rewrote the directions for the iTunes submission process to reflect Apple’s new iTunes Connect Web site. See [Add Your Podcast to the iTunes Store](#).

What Was New in Version 3.0

Six years after the publication of the second edition, I had some extra time and decided that it'd be worthwhile to bring this book into the current era. Here are the highlights of what I changed:

- Added profiles of experienced podcasters so you can get an idea what others are doing (and find cool shows to follow):
 - ▶ [Podcaster Profile: Chuck Joiner](#)
 - ▶ [Podcaster Profile: Louis Trapani](#)
 - ▶ [Podcaster Profile: Kelly Guimont](#)
 - ▶ [Podcaster Profile: Kirk McElhearn](#)
- Added descriptions of my personal studio and mobile podcasting setups in [Andy's Home Studio Gear](#) and [Andy's Mobile Podcasting Gear](#) to provide an idea of what works in the real world.
- Updated throughout for GarageBand 10 for Mac.
- Removed coverage of programs that are no longer available or recommended, including WireTap Studio and Übercaster.
- Added coverage of Audacity in [Mac Applications and Tools](#), [Record with Audacity](#), and [Edit with Audacity](#).
- Added information about recording Skype conversations with Ecamm's Call Recorder in [Mac Applications and Tools](#) and [Record Online Interviews](#).
- Added a step-by-step discussion of how to [Record with GarageBand for iOS](#) and [Record with Voice Record Pro for iOS](#).
- Added information about how to set up an RSS/Atom feed for your podcast in [Understand Syndication Formats](#) (including [Setting up a FeedBurner Feed](#)) as well as how to [Create a Logo](#) for the Podcasts section of the iTunes Store.
- Updated tips on podcast hosting in [Host Your Podcast](#) and how to find an audience in [Publish and Promote Your Podcast](#).

Introduction

When I was 11, I was a DJ on WZKU out of Bronxville, New York. That is to say, I had a tape recorder and I created tape after tape of radio shows, skits, copies of music I recorded off the radio, and more. My next door neighbor David helped me out, too. It was a lot of fun creating those tapes, and I dearly wish they were still around today. Later, in college, I studied and composed electro-acoustic music in Dartmouth College's [Bregman Music & Audio Research Studio](#) in multiple classes taught by the wonderful Jon Appleton. My interest in sound equipment, music composition, and having fun with audio tools has waxed and waned over the years, but never left me completely.

And then 2004 arrived. In August 2004, Adam Curry, a former MTV VJ, began producing a daily show from his home in the Netherlands in which he talked about topics that interested him and he played music he felt like sharing.

Others had produced “audio blogs” before, most notably Dave Winer, who created subscription and update standards first for text and later for attachments—including audio—without which podcasting couldn't exist. But it wasn't until both Curry wrote some primitive software and Winer popularized it that something gelled, making podcasting a fad, then a trend, and now a part of tens of thousands of Web sites.

In its simplest form, a *podcast* is a downloadable audio file. It could be as simple as a song that a podcaster wanted to share, or it might be a full-blown audio show edited together in the style of a radio program. Most podcasts are free to listeners.

Subscription and automatic downloading capabilities make the podcast listening experience distinct from the experience of listening to audio files linked from Web sites. Listeners typically retrieve individual podcast files, called *episodes*, using iTunes (on the Mac or in Windows), Apple's Podcasts app in iOS or on the Apple TV, or with a third-party app. A podcast file is usually in MP3 or AAC format, though some podcasts use other audio formats. The publishing side

of podcasting is *syndication*; the retrieval side is *subscription*. Most podcasts can also be downloaded manually.

Podcasting combines elements of several disparate technologies—audio recording and editing, content syndication, and Internet file transfers—into a single process that retrieves audio from a Web site and puts it on listeners’ computers or mobile devices. A computer, in turn, can sync podcasts to an external digital audio player such as an iPod or iPhone. One click or tap can often initiate the whole process.

Note: You can read about the history of podcasting in a TidBITS article that I wrote, called [Podcasting: The People’s Radio](#).

Creating your own podcast can be highly rewarding. Podcasts don’t need the professional veneer of a commercial radio broadcast. Just start recording. If your content is worthwhile, you’ll find an audience. You can always improve your format and production as you discover what works and what doesn’t.

What’s in a Name?

You don’t need an iPod to listen to podcasts: almost any device that can handle digital audio will do. The name came about only because Apple’s iPod was the most popular digital audio player on the market at the time. There were rumors that Apple would demand a name change to protect its iPod trademark, but Apple (and all others) have since embraced the term.

Apple’s GarageBand app is a major player in this book. To keep pace with Apple, I’ve provided directions for GarageBand 10 for Mac and GarageBand 2 for iOS. At the moment, these versions of GarageBand run on OS X 10.9 Mavericks and later and iOS 7 and later, respectively.

Earlier versions of GarageBand for Mac are covered in previous editions of this ebook. To download them (for free), flip ahead to [Ebook Extras](#). Note that the directions for GarageBand 5 found in the second edition work fine for GarageBand 6 (there was no GarageBand 7, 8, or 9; see the sidebar [GarageBand 10 and Podcasting](#)).

Podcasting Quick Start

This book shows you how to plan, record, edit, encode, and publish a podcast. You can learn about these steps in any order, but I encourage beginners to read the material in sequence.

Plan your podcast:

- Understand the process; see the [Introduction](#) for an overview of what podcasting is, and then [Plan Your Podcast](#).
- Brush up on your vocabulary in [Learn Podcasting Terminology](#).

Record your podcast:

- Make sure you have the hardware and software that fits your needs and budget; see [Set Up Your Studio](#).
- Consult [Use Good Microphone Techniques](#) in order to avoid common mistakes.
- Find advice and procedures for how to [Record Your Podcast](#) on your Mac or on an iOS device.

Edit and encode your podcast:

- Learn basic audio editing techniques in [Edit Your Podcast](#).
- Decide which encoding settings you want to use and encode your podcast for uploading; read [Encode and Tag Your Show](#).

Publish and promote your podcast:

- [Understand Bandwidth Costs](#) so you don't go broke if you become popular.
- Upload and host your show; see [Upload and Publish an Episode](#).
- Syndicate your show; consult [Understand Syndication Formats](#) and [Promote Your Podcast](#).

Plan Your Podcast

Proper planning produces podcast prosperity.

Decide What You Want to Say

Do you want to talk politics? Music? Cooking? Make an audio version of your blog? There's no restriction for what a podcast should and should not be. Of course, if you cover all these topics and more, you may find it harder to find an audience than if you focus on a narrower range and cover it well.

Finding listeners is simpler if your podcast can be summarized in a sentence. More people will sample your show if it fits in a category in a podcast directory—like that found in the iTunes Store—than if it ends up lumped in a generic catch-all list. Listeners aren't likely to tune into your random thoughts unless the podcast is recommended or those random thoughts happen to fall in the listeners' areas of interest.

Pick a Format

Decide how simple or complex you want your show to be. Do you want each show to start with the same opening (called the *intro*) and finish with the same closing (*outro*)? Do you want music to segue between topics much the same way NPR's *All Things Considered* does? Will you be the only voice or will you have co-hosts in roundtable discussions? Will you interview people, either in-person, over the phone, or via Internet? Will you play a lot of music? These elements help determine the format for an episode or even your entire podcast.

A consistent show format will simplify producing your podcast and help your audience know what to expect. But you might want to mix it up and have each episode be completely different.

Listen to Your Audience, Listen to Your Show

You may have neither the equipment nor the time for the highest level of professional production, but that doesn't mean you must eschew quality. For example, you can rerecord any major flubs, especially technical gaffes such as sound levels being too far off or the dog barking at the wrong time. But you can also leave smaller mistakes alone, and maybe a small child wandering into the room adds some humor to a given moment.

Your audience will dictate what level of quality you strive to achieve. They'll let you know what they like and don't like, and they'll make suggestions. How you respond is your own decision, of course, but an audience that's listened to should continue to listen to you.

An important method for improving your shows is to listen to an episode a few weeks after you produce it. With a little distance between yourself and a show, you hear things you missed the first time around. When I listen to my earliest shows, I recoil at how often I said "um." That reaction helped me stop saying that filler syllable.

Learn Podcasting Terminology

Like any good hobby, podcasting has its own collection of terms you should know, mostly borrowed from the world of radio. Many terms describe techniques that make for a more polished, professional sounding show:

- **Intro:** The *intro* is an introduction—how a show starts. In music podcasts, it can come before or after the first song (based on your personal style). Use the intro to tell your listeners what they are listening to and who you are. One tradition is to begin your show with a quick note of the title and date before going into the title music or first bit of content. This lets users know what they are listening to if they don't have (or can't see) a screen.

- **Outro:** By the same token, the *outro* serves as a final farewell. It often contains useful details such as the URL of your show’s Web site, how listeners can contact you, and legal information.
- **Stinger, bumper:** A *stinger* or *bumper* is a short sound or, more commonly, a piece of music that bridges two segments of a show. Often stingers end one concept and introduce another. Longer transition sounds or music are sometimes called *interstitials*.
- **Mixdown:** When you *mixdown*, you take a finished show and mix the separate tracks and processed audio into a single, final audio file in your chosen encoding format. *Mixdown* is also a noun describing the final file.
- **Lag:** *Lag*—or *latency*—is a gap in time between two actions. Lag describes a delay between when you say something and when you hear it in your headphones. If you can’t minimize lag so that you hear your voice as you speak, you’re better off not listening to yourself. (You’ll slur your speech—try it, it’s true!)
- **Playhead:** In audio editing programs, the *playhead* is a vertical line indicating the point of a sound recording that is being played. You can move the playhead as needed during editing or playback. Some programs also call the playhead a wiper.
- **Scrubbing:** Some programs *scrub* the sound as you move the playhead, by playing snippets of what is under the playhead. In this way, you can find specific audio without having to move, play, stop, and move again.
- **Ducking:** *Ducking* is when you lower the volume of one audio track so as to better hear another one. The most common use of ducking is when a voice speaks over a piece of music. The volume of the music goes down, or ducks, to make the voice more intelligible.
- **Plosives:** Sharp blasts of breath on a microphone from words with “p” or “b” in them—and sometimes even “k” or “d”—are known as *plosives*. Plosives sound like loud pops in your recording; you can avoid them with good mic technique or a windscreen, discussed in [Use Good Microphone Techniques](#).

Set Up Your Studio

The format for your podcast determines the technical setup of your studio. Some people want to record while mobile. Most people podcast in front of a single computer with a single microphone and mix in sounds from other apps, such as iTunes, Skype, and Messages.

Choose a Mic and Supporting Hardware

The only truly essential tools for podcasting are a computer and a microphone. A breakout box might be a helpful addition: they're designed to provide external inputs that aren't built in to your Mac or iOS device, like connectors used in more traditional audio. Some podcasters use an external mixer to control multiple sound inputs. Let's start with the mic, and then [Decide on a Breakout Box or Mixer](#).

Pick a Mic

For podcasting, two types of microphones are important:

- **Condenser:** *Condensers* provide accurate sound but they're somewhat fragile and require power, usually from a battery or from phantom power from a mixer or interface. (The *phantom power* runs along the wires that also carry the audio signal.)
- **Dynamic:** *Dynamic* mics generally provide less accurate sound than condensers, but they stand up to abuse (they're often used for concerts) and do not require an external power source.

Deciding which to pick may come down to whether or not you can power a condenser mic. If you are using an interface or mixer that provides phantom power, you can use a condenser mic. (I talk about mixers a few pages ahead, in [Decide on a Breakout Box or Mixer](#).)

If you plan to do a lot of in-the-field recording, you likely don't want to risk an expensive condenser mic. And many dynamic mics have surprisingly good quality (such as the Sennheiser e835 I use).

Another important distinction is the pickup pattern of the mic:

- **Directional:** This kind of mic, sometimes called *unidirectional*, captures sound from one primary direction. Directional mics are great for general speech because you can focus them on your voice and make many nearby sounds, including a computer fan, not as intrusive. But directional mics can be a liability: for example, in an interview, each speaker needs their own directional mic. Also, directional mics are generally more likely to distort wind noise, plosives, and sibilants.
- **Omnidirectional:** An omnidirectional mic works well for recording ambient sounds outdoors, such as when you create a “soundseeing” tour (see [Take Your Show on the Road](#), ahead). It’s also good for an interview if you have only a single mic. However, omnidirectional mics pick up surprising amounts of sound from all around, including room noise, computer fans, traffic, and chair squeaks.

Mixed Types

Some microphones provide other listening patterns. For example, the Blue Yeti microphone can switch among four patterns (**Figure 1**).



Figure 1: The Blue Yeti mic can switch among four patterns.

The four patterns are (from left to right):

- **Bi-directional:** With this pattern, the mic picks up sounds from the left and right side only. This is useful for capturing stereo sounds because each side is pushed into its own channel.
- **Omnidirectional:** An omnidirectional mic picks up sounds from all directions.
- **Cardioid:** The most common form of a unidirectional microphone, a cardioid mic captures sounds in front of the mic in a heart-shaped pattern. This is the most common setting for one person recording their voice for a podcast (and how I generally use this mic).
- **Bi-directional:** Unlike the first bi-directional setting, this one captures sound from the front and back only (use it to interview someone sitting across from you).

The Subjectivity of Sound

“Great sound” is highly subjective. What one person hears as fantastic may sound terrible to another. Some people (like my son) prefer the sound of vinyl LP albums to CDs. Other people think that Apple’s encoding of songs in the iTunes Store sounds great (I’m one of them), but others find it unacceptable and prefer CDs. Of course, a CD itself is usually lower quality than a master recording.

When I write that something produces “great” sound, I mean most people would agree that it sounds good to them. Some people will never accept the quality of any compressed format.

When I write that something sounds “bad,” I mean that I can identify certain characteristics that most people would agree reduce the sound quality. The audio may be noisy with hisses or strange high-pitched warbles, or it may have odd noises like loud pops or static. Great sound starts with audio that is free from these defects.

As always, you need to decide what level of quality you desire. Or, more to the point, you need to decide what your listeners will enjoy.

Record Your Podcast

Ultimately, recording a podcast is about capturing audio. You may record your voice, include a song, interview somebody over Skype or Messages, or play sound effects. No matter the source of the sound, it has to be captured and recorded by software on your computer or mobile device.

In this chapter, I start with good microphone techniques and using audio plug-ins and effects, and then walk you through several software programs that I recommend for audio capture: GarageBand for Mac and iOS, Audacity for Mac, Voice Record Pro for iOS, Audio Hijack 3 for Mac, and Ecamm Call Recorder on the Mac.

Use Good Microphone Techniques

Before recording, let's talk about a little physical reality: setting up and speaking into a microphone. There's an art to using a mic, but these quick tips cover most of what you need to know:

- **Keep the mic away from your mouth:** Position the mic a few inches away and somewhat above or below your mouth so that you do not breathe directly into it. This helps prevent plosives and sibilants (See [Learn Podcasting Terminology](#)).
- **Angle the mic:** If possible, point the microphone down toward your mouth from above to reduce plosives, nasal tones, and lip-smacking sounds.
- **Set the appropriate input levels:** Open System Preferences (choose System Preferences from the Apple  menu) and click Sound. Click the Input button, and check the audio input levels. Begin speaking and adjust the "Input volume" slider until you are filling about 80 percent of the bars. Any louder and you risk your sound being distorted; any less and your input may be too quiet.

Interview People Successfully

Many podcasts include interviews. Regardless of your topic, you can almost always find people who can add value to your show by sharing their unique perspectives with your listeners. Good interviewing is an art. Consider the following tips:

- **Research:** There is nothing more painful than an interview where the host isn't familiar with the guest or even with the subject matter. Take the time to research your guest and the topic that you will be discussing in as much detail as possible.
- **Prepare:** Carefully think about what you want to ask your guest, and write down questions beforehand. Check off the questions as you go through the interview.
- **Ask your guest for topics:** Before you begin an interview, ask if there are specific points or topics your guest wants to cover. Add these to your list of questions if they aren't represented already. Also ask if your guest would prefer to avoid any subjects. If so, respect their wishes.
- **Consider getting a release:** You may want your guest sign a release so you are covered legally if something goes wrong down the road. This usually applies only to interviewing famous or controversial people, and you should consult a lawyer if you feel there's any risk of a guest alleging libel, invasion of privacy, or even copyright infringement. Some podcasters obtain a simple, verbal form of release where they say something like, "I am now recording, but we have not yet started. When I say 'we are live' we will begin the interview. Is this okay?" and wait for their guest to say "yes."

Remember, a guest may not be famous (or infamous!) when you conduct your interview, but that could all change tomorrow.

- **Let your guest know if you plan to edit:** If you plan to edit your interview (and, generally, you *will*, for reasons I describe in this book), let your guest know before you begin. Tell your guest not to worry about stumbles or messed-up answers: it's fine to just

stop and then start over again, because you will edit out the mistakes later. This will put your guest greatly at ease.

- **Remember who the interview is about:** I've listened to many interviews in which the interviewer doesn't let a guest get a word in edgewise. Keep your questions generally short and let your guest do all the talking. This is not to say you can't ask a long question or go off on a tangent, just don't do it so much that your guest gets annoyed. The interview's focus should be on the guest, not you.
- **Listen and take notes:** As your guest speaks, listen carefully and take notes. You'll often find your guest addresses topics you were planning to go into, or that they say something that sparks a new question you want to ask. Stay on top of things and remain engaged fully with the interview.
- **Use silence to pull more out of your guest:** Sometimes guests answer in short, declarative sentences, which makes for a boring interview. If your guest gives a short answer and you think there's more to be said, stay quiet for a moment. The uncomfortable silence and the sense that you're waiting will often inspire your subject to say more. The tactic doesn't always work, but it's worth a shot.
- **End the interview gracefully:** When you are done, thank your guest and remind listeners how they can learn more about your guest, along with his or her book, podcast, Web site, movie, or other projects. You could also ask your guest to tell listeners where they can find out more.
- **Edit your interview:** In most cases, interviews should be edited. Raw interviews contain long pauses while a subject stops to think, awkward sections where a speaker stumbles and starts over, and interruptions like a car alarm or a dog barking. In addition, you want to make your guest sound good: removing "ahs," "ums," and "you knows" can make your interview subject sound polished. If your guest sounds good, they will want to promote the interview—and that can only help you. Also, you can often trim your own comments, leaving less of you and more of your subject. Making your subject sound good can only help you.

Edit Your Podcast

Once you've recorded all the pieces of your podcast and moved them to your computer—if they weren't there to begin with—you may want to edit them, either to sequence pieces together or to remove anything accidental, like stumbles in your (or your guests') speech and other mistakes. You could decide *not* to edit, too, but editing is a great way to tighten and polish your podcast episodes with professional effects like fades, ducking, stingers/bumpers, sound effects, and more.

Edit with GarageBand

GarageBand provides great flexibility for mixing and modifying different tracks, including adding filters, equalizers, echo, and reverb. GarageBand mixes and processes effects on the fly as it plays back the audio, without altering the original, underlying audio data. You can also make permanent edits to remove gaps, speech stumbles, and other unwanted content, as well as cut, copy, and paste audio bits into other locations.

Add Audio

To include additional audio in a GarageBand project, simply drag in any audio file in MP3, AIFF, WAV, Apple Lossless, or (non-protected) AAC format. You can also drag in music, sound effects, and more from within GarageBand. GarageBand includes a large collection of fun (and cloying) sounds you can use to spice up a podcast. You can drag sound effects or audio files into existing compatible audio tracks, or have GarageBand make a new, unique track for your additional audio as you drag it in.

Drag each audio file from the Finder or GarageBand's Media Browser into the GarageBand timeline. Unless you drop the file into a compatible audio track, GarageBand puts each dragged-in sound in a separate track at the point in the timeline where you dropped it. As you drag in

7. The news segment (back on the first audio track), recorded in GarageBand in my home studio.
8. A *bumper*, which is more music to close out the news segment. I placed it in the second audio track with the other music, and it's also from GarageBand's library.
9. More ambient sounds from a rehearsal of *The Three Musketeers*, recorded with VocaLive Free on my iPhone 5s. I placed them in the third audio track I'd previously used for ambient sounds (see number 4, above).
10. The complete second interview, recorded with VocaLive Free on my iPhone 5s. I placed it on a fifth audio track rather than re-using the fourth audio track in number 5, above.
11. *Outro* music from GarageBand's library, also in the second audio track with the rest of the music.
12. My closing comments in the first audio track, recorded in GarageBand in my home studio.

As you can see, I reused tracks for similar things. All my in-studio recordings are in the first track, and all the music is in the second track. I could have put both interviews in the same track (as I did with the ambient sounds from the rehearsal) but since I interviewed two different people, I wanted to be able to post-process their recordings differently. (I didn't need to, ultimately.)

In addition to the included library of loops and jingles, GarageBand offers an integrated Media Browser that provides access to your iTunes (and iMovie) libraries without leaving GarageBand. Choose View > Show Media Browser (or type the letter F) to open the Media Browser, or click the Media Browser button at the upper right of the window (**Figure 51**).



Figure 51: Select GarageBand's Media Browser.

Encode and Tag Your Show

Now that your podcast show is recorded, edited, and mixed, it's time to encode it and add identification tags before releasing it onto the Internet. *Encoding* means selecting an audio format and compressing your show so it downloads faster and consumes less of your listeners' storage space. Adding tags (like titles, episode numbers, and guest lists) helps listeners manage your podcast in their audio software and on their devices.

Encode Your Podcast

Before you start encoding, you should determine what file format to use for your podcast and what settings are most appropriate for your show.

Pick an Audio Encoding Format

Always record directly to AIFF (even when recording outside of GarageBand) and edit using those AIFF files. Then, encode to either MP3 or AAC (also called M4A). Here's why:

- Encoding to a compressed format requires a lot of processing power. Making your Mac encode on the fly while you try to manage audio from multiple sources (and apply effects like compression or reverb) may overpower it. Some of your audio could be lost or corrupted if your computer can't keep up.
- You can encode, but you can't decode. Once your audio is in a compressed format, you can't undo that encoding to return to your original master recording. I prefer to have full-range, uncompressed masters of my shows, and to experiment with encoding options using only the uncompressed master. It can be hard to know what will work best *before* you record and edit your show. If one episode is mostly talk, I might encode it in a manner that preserves clear speech but saves space so that the episode downloads faster. If an

episode has a lot of music, I might encode it differently to preserve stereo mixes and sound quality at the expense of it taking more space and having a longer download time.

Once upon a time, MP3 was the dominant format for online audio files. Years ago, Apple introduced support for AAC in iTunes, and the iTunes Store uses the format exclusively. (AAC is a subset of the MPEG4 standard, not, as is sometimes assumed, something Apple invented.) Since then, AAC support has become nearly ubiquitous. However, there are still a few holdouts and older media players may not support AAC. My advice is to stick to MP3 unless you are certain that AAC won't be an issue for your intended audience.

What about Enhanced Podcasts?

Apple introduced Enhanced Podcasts some years ago. Enhanced Podcasts can have chapters, embedded graphics, and embedded links. iTunes and iPods with color screens supported them, but few others apps or devices did. GarageBand's now-removed podcasting features provided a way to create chapters, graphics, and links, but the format never really caught on and Apple has reduced support for it in iTunes 11. Some people still produce Enhanced Podcasts, and they're especially nice for long podcasts because users can skip around chapter by chapter.

As such, I do not see much point in producing Enhanced Podcasts any longer. However, if you feel your podcast would benefit from it, a few tools are available to you:

- ✦ **GarageBand 4-6:** If you have an older version of GarageBand, you can use it to create Enhanced Podcasts. Earlier editions of this ebook are available to walk you through this. See [Ebook Extras](#) to download a copy of the second edition, which covers GarageBand 5 (and the instructions work for GarageBand 6).
- ✦ **Fission:** Rogue Amoeba's Fission (\$32) is a simple audio editor that supports enhanced podcast creation.
- ✦ **Auphonic:** The free [Auphonic](#) Web site provides sound editing and mixing, as well as the capability to add chapters to your podcast.

Export and Encode from GarageBand

When you encode a file in GarageBand for Mac, you also export it—and you may even add some tags. That's fine, since you want to export the file in order to continue the publication process.

After you decide whether to encode in MP3 or AAC format (discussed just above), you should pick an encoding rate.

GarageBand gives you five choices for both MP3 and AAC exports, with the main difference being the encoding rate, measured in kBit/s (kilobits per second). One kilobit is 1,024 bits, or 128 bytes. The higher the number, the more data GarageBand uses to encode each second of audio. The more data, the better the sound, but the larger the file.

To give you an idea, 4 kBit/s is about the minimum of data for well-recorded human speech to still be recognizable (but it will sound awful). A typical landline telephone call is about 64 kBit/s, and (stereo) CD-quality audio is 1,411.2 kBit/s.

With all that in mind, here are the choices GarageBand gives you:

- **Low Quality (64 kBit/s):** I would only use this for voice-only podcasts (no music of any kind) and only if absolutely necessary (for instance, if your shows are hours long).
- **Medium Quality (128kBit/s):** This is good for a podcast that is primarily voice with some music. It is not good for podcasts that are about music and are sharing music. I use medium quality for the Swamp Meadow Podcast I produce.
- **High Quality (192 kBit/s):** Very good quality. In the early days of the iTunes Store, 192 kBit/s AAC was the standard for music. High quality is a good bet for a music-based podcast or one that uses a lot of sound effects.
- **Highest Quality (256 kBit/s):** This is the highest quality available via GarageBand (it also makes for the largest compressed files). Only choose 256 kBit/s if audio quality is crucial and you know your audience won't mind large downloads. Apple uses this format for iTunes Plus AAC files in the store.

Host Your Podcast

Podcasters generally host their shows on Web logs, or blogs. Episodes might be a part of a larger blog where some entries are articles and others are recordings, or they may be on a blog all about the podcast that contains only recordings. There are many options for hosting your podcast's blog, but let's lay some groundwork first.

Understand Bandwidth Costs

Moving bits costs money. The site or service that hosts your podcasts pays money per megabyte, gigabyte, or terabyte per month (or by their peak bits per second) for pushing data out from their network. Most hosting companies pass that cost along to their customers—meaning *you*—in some way. Before you upload your show and get it out there, be aware of your hosting company's policies toward bandwidth.

If your show were to become popular—with lots of listeners downloading episodes—you could find yourself on the losing end of one of the great contradictions of the Internet: the more popular you are, the more money it costs *you*.

For example, when I wrote an article for TidBITS about podcasting way back in 2005, [Podcasting: The People's Radio](#), I hosted a podcast to go with it featuring an interview with [Dave Winer](#) (creator of the RSS standard that enables automatic subscriptions to online content like podcasts). Before that article, each episode of my podcast racked up a modest 300 downloads. At about 10 MB per episode, those downloads totaled around 3 GB of traffic from my Web site. My provider included 30 GB per month of bandwidth allowance as part of my recurring service fee, so I never needed to pay more than my recurring fee, though if I did, I would be paying \$5 per gigabyte.

When the TidBITS article was published, I moved over 25 GB in just a few days. If the article had been any more popular, it could have cost

me a great deal of money. Instead of my usual \$30 per month, I could have been paying double, triple, or even more for that one month.

These days, most providers have much higher allowances, or charge only by how much data you host with them—and the rates are modest. (Some even offer unlimited bandwidth, although some have curious definitions of “unlimited.”) If your provider’s policies are restrictive, you should shop around. There’s no reason you can’t keep your site with your current provider, but put the audio files somewhere else.

Choose a Hosting Service

There are many options for hosting a blog for podcasting. Here are just a few of the more common ones:

- [WordPress](#), [Blogger](#), [Tumblr](#): These free sites are turnkey solutions. They handle virtually every aspect of managing a blog. However, the standard RSS feeds that they offer do not recognize podcast files. You can get around this with FeedBurner, a Google service that can analyze the RSS file produced by your blog, sort out the audio files, and include them. You want the audio files (or, at least, the links to the audio files) included so Apple and other syndicators can add them to their podcast directories. (See [Setting up a FeedBurner Feed](#), later in this chapter.)
- [Squarespace](#): Squarespace is a Web site hosting service similar to the options above, but it provides more comprehensive podcast support—including creating the appropriate RSS feed. Pricing starts at \$16 per month (\$12 per month if billed annually).
- [LibSyn](#), [BluBrry](#), [Podomatic](#), and [Podbean](#): These services are designed for podcast hosting and can handle both your blog and your media, plus create the proper RSS feeds. However, they are not free. LibSyn starts at \$5 per month, BluBrry at \$12, Podomatic at \$10 (there is a limited free option), and Podbean at \$5. Pay special attention to the terms you agree to when hosting with these services. There may be hidden gotchas, especially if your podcast starts bringing in ad revenue.

- [SoundCloud](#): The SoundCloud service is devoted to sharing recordings. Many musicians and bands use it to publish music for free downloading to get attention and build a fan base, but many podcasters also use it to host their shows. SoundCloud's free plan limits you to 3 hours of recordings. For €4/month (about \$4.50 as of June 2016), SoundCloud expands that to 4 hours, and €9/month (about \$10) covers unlimited recordings. SoundCloud also offers a specific set of features for podcasters. You can request access by filling out a form—start on the [Podcasting on SoundCloud](#) page.
- Self-hosting: If you have the resources and the know-how, you can self-host your blog on your own site using a blogging engine, such as [WordPress](#) (the same software used on Wordpress.com but you manage it yourself). [BlueHost](#), [HostGator](#), [DreamHost](#), and [Pair.com](#) (which I use for my own personal Web site and blogs) are all examples of services that will host sites for you. Prices can vary widely. As an example, with Pair.com, I host over ten sites under my account and pay \$30/month for the server and email services for all the sites.

Another approach is to host your blog in one place but host the audio files in another. For example, you could use Wordpress.com for your site but host the audio files on LibSyn or DreamHost. You need to figure out what is best for what you are trying to do. It can be exceptionally difficult to move a podcast from one host to another once you're up and running, so it pays to plan ahead. It may be tempting to go for the simplest, easiest solution right away, but going with a more sophisticated (and permanent) solution might be worth the effort from the start.

Understand Syndication Formats

Syndication is used primarily by Web logs (blogs) and news sites to enable visitors to subscribe to changes or automatically follow updates without revisiting the site. The same technology works for podcasting: syndicating your podcast lets both subscribers and podcast directories know about new episodes automatically. However, podcasting differs

Publish and Promote Your Podcast

Now that your show is ready for the public, you can make it available and let people know about it.

Upload and Publish an Episode

The procedure for uploading and posting an episode of your show is:

1. Upload the file to the site where you plan to host the media (which may be different than the one hosting your blog or Web site) using the Web interface provided by that service. (Some hosting plans also let you upload via secure FTP.)
2. Create a new blog entry or Web page with your show notes and anything else you want to say. Link to the podcast file in the entry. Show notes provide an episode synopsis, and they should include the size of the file and the duration of the podcast. For example:

Number 7: Interview with Jim Van Verth of The Vintage Gamer (<http://thevintagegamer.net/>) about microphones, mixers, portable rigs, and more! Details: AAC, 28:23, 19.7 MB

3. When you post the entry to a blog, the system will create an RSS entry. If the platform supports podcasts, it will add the required enclosure tag to your feed so subscribers can get the audio file. If you are using FeedBurner, it will download the update to your blog's RSS feed and create the enclosure tag for your podcast's audio file in its own feed.

After this, it's up to you to tell the world about your episode!

Add Your Podcast to the iTunes Store

When you first establish your podcast, you should get it listed in the major podcast directories. First and foremost, you want to list it in Apple's iTunes Store. The iTunes Store has an excellent podcast directory, which you access through the iTunes desktop application or in the Podcasts app in iOS or Apple TV.

The sign-up process is quite simple and can be started at the My Podcasts portion of Apple's iTunes Connect Web site:

1. Visit [iTunes Connect](#) and sign in with your Apple ID (**Figure 91**).



Figure 91: Sign in to iTunes Connect.

2. If this is your first time, you will be asked for your RSS feed URL. Otherwise, click the Add  button at the upper left to begin adding a podcast.
3. Enter the URL of the RSS feed you generated (see [Understand Syndication Formats](#), earlier) (**Figure 92**).

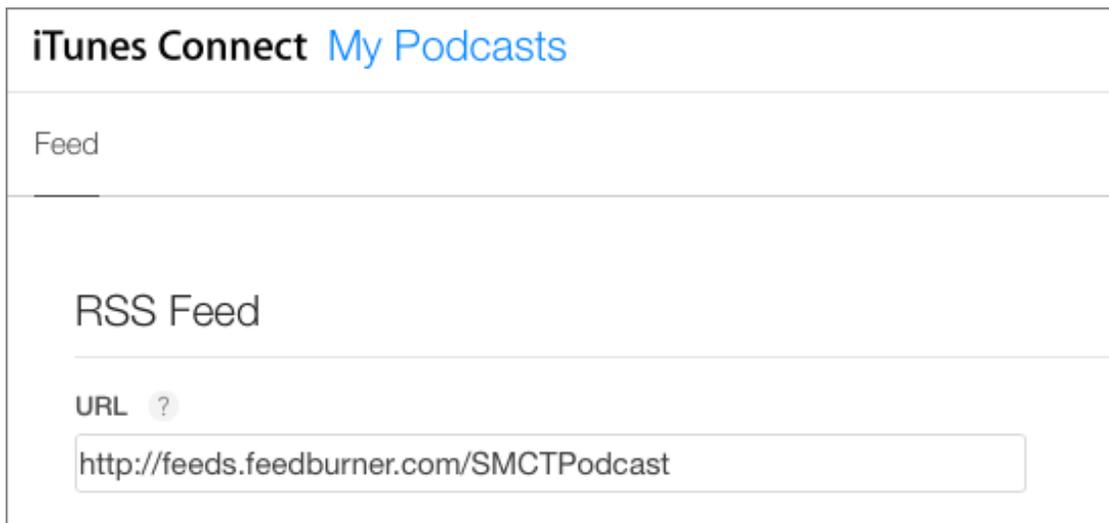
The image shows a screenshot of the iTunes Connect 'My Podcasts' interface. At the top, it says 'iTunes Connect My Podcasts'. Below that is a 'Feed' section. Underneath, there is an 'RSS Feed' label. Below the label is a 'URL' field with a question mark icon. The URL entered in the field is 'http://feeds.feedburner.com/SMCTPodcast'.

Figure 92: Enter the URL of your RSS Feed.

4. Click the Validate button and if all goes well, you see your podcast artwork, your description, and other information about your show. At the bottom you see all episodes uploaded and listed in the feed.
5. If all looks good, click the Submit button to submit your podcast.

Apple sends you an email message telling you the submission was successful and that your podcast will be available after it is reviewed. This can take hours or days, so be patient.

Once the podcast is added, Apple regularly checks the podcast's RSS/Atom feed in order to add any new episodes to its listings, so you need to tell iTunes about your podcast only once. The listings in the iTunes podcast directory will stay current as long as your RSS/Atom feed is updated when you post new podcasts.

Many other podcast directories are out there: if any aim at an audience similar to yours, make sure you submit your listing. Podcast411 maintains an excellent [list of Podcast Directories](#).

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About the Author

Andy J. Williams Affleck (the Affleck part was stolen from his wife) has been using Macs since 1984 and has always been obsessed with any new medium that improves communication. At first it was main-frame-based chat systems (Dartmouth College's XYZ for anyone who would remember that), then email, instant messaging, and newsletters, then finally the Web. He built Dartmouth College's first Web site in 1993, put together the original Web site for the sitcom *Friends*, and started a virtual community that celebrated its 20th birthday in 2015.

He has a master's degree from the Harvard Graduate School of Education in Technology in Education, specifically online networks for teaching and learning. When he's not figuring out new ways for people to communicate online, he's the Senior System Administrator for Intermarkets, inc., a freelance Web and graphic designer/developer, a FileMaker Pro consultant, and general geek-for-hire. He blogs about nothing in particular (and lots of amateur photography) at AndyAffleck.com. He's also active in the [Swamp Meadow Community Theatre](#) as an actor, director, and Technical Director.

He lives in Rhode Island with his wife and daughter, two cats, one dog, and his mother-in-law. Finding quiet time to record podcasts is... tricky.

Acknowledgments

Thanks, as always, to my wife and daughter for understanding why I had to vanish for long hours to write and demand quiet in the house while I tested audio equipment and recorded podcasts. And thanks to Geoff Duncan, the world's greatest editor (and all around awesome person)!

Shameless Plug

If you are ever in driving distance of Foster, Rhode Island, check out [Swamp Meadow Community Theatre](#). They're a seriously talented group! And their podcast is pretty good too, if I may say so myself.

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TidBITS Publishing Inc., publisher of the Take Control ebook series, was incorporated in 2007 by co-founders Adam and Tonya Engst. Adam and Tonya have been creating Apple-related content since they started the online newsletter [TidBITS](#) in 1990. In TidBITS, you can find the latest Apple news, plus read reviews, opinions, and more.

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Take Control of Podcasting on the Mac, Third Edition

ISBN: 978-1-61542-437-5

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[TidBITS Publishing Inc.](#) 50 Hickory Road, Ithaca NY 14850, USA

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