How To Create A Podcast

BMAC Presentation

Gary Harding

December 14, 2005

Agenda

- Definition and Concept
- Equipment
- Workflow Overview
- Server storage
- Show Format
- Workflow Step by Step
- Demo of Sound Studio and Podcast Maker

Podcasting Definition

- Podcasting - The [New Oxford American Dictionary](#) crowned "podcasting" as the 2005 word of the year and defines the term as "a digital recording of a radio broadcast or similar program, made available on the Internet for downloading to a personal audio player".

  - Source - www.wikipedia.org - Oxford University Press, [5 December](#), 2005 [Podcast is word of the year](#)

Podcasting Definition

- Creating content (audio or video) for an audience that wants to listen when they want, where they want, and how they want.

    - Source - www.wikipedia.org

Podcasting Definition

- An automatic mechanism by which multimedia <u>computer files</u> are transferred from a <u>server</u> to a <u>client</u> which pulls down XML files containing the Internet addresses of the media files. In general, these files contain <u>audio</u> or <u>video</u>, but also could be <u>images</u>, text (*e.g.* <u>PDF</u>), or any file type.

  - Source - <u>www.wikipedia.org</u>

Concept

- Two files, one audio (usually) and one XML, are uploaded and stored on a public server containing a blog or a website.
- A user logs onto iTunes or similar server application.
- iTunes, routinely (daily) downloads the XML file. Note - The audio file is NOT downloaded to iTunes.

Concept

- User subscribes to podcast via iTunes or other podcast aggregator
- Podcast episodes are automatically downloaded via iTunes from the author's public server

Basic Equipment and Software Needs

- **Very Basic Startup**
  - No recording equipment - use Mac's microphone
  - Use an application to record the content
    - QuickTime Pro
    - GarageBand
    - Audacity (freeware)
  - MS Word or an editor to create the XML file

Problems with Very Basic Setup

- Mac Microphone is omni-directional - picks up sounds all around you and is low quality.
- QuickTime Pro - No edit features
- GarageBand - Limited to 20 to 25 minutes
- Audacity - I encountered a bug - could not retain aiff formatted music files
- XML format not user friendly

My Equipment (Purchased)

- Radio Shack Unidirectional Microphone - $40
- Radio Shack Microphone Desk stand - $8
- Radio Shack Microphone Wind Screen - $5
- Radio Shack 4 Channel Stereo Sound Mixer - $40
- Radio Shack Computer Headphone Speaker Switch - $17

My Equipment

- **Griffin iMic (USB audio connector) - $40**
- **Sound Studio application - $80**
- **Podcast Maker application (XML publisher) - $20**
- **Initial investment - $250**

My Equipment (Already Owned)

- Monster Y cable - 1/8" stereo mini plug to RCAs
- Mac G4 Tower - 450 MHz, 256 RAM, Mac OS X 10.4.2
- iTunes 5.0
- Koss Pro/4AAA Headphones (oldie but goodie)
- Cambridge Soundworks MicroWorks II speakers

Microphone Setup

- **Microphone to Mixer**
  - Mixer needed to provide adequate signal power
- **Mixer to iMic via Y Cable**
  - iMic purpose is to reduce noise caused by using the Sound In (Mike) jack directly. Note Mac Mini does not have Sound In.
- **iMic to USB port on Mac**
  - Cannot use hub

Headphone and Speaker Setup

- Headphones to Computer Headphone Speaker Switch via a 1/4" to 1/8" converter
  - Headphone volume will be slightly reduced
- Speakers to Computer Headphone Speaker Switch
- Computer Headphone Speaker Switch to Sound Out port
- Setup allows you to monitor recording and later listen through speakers

Website (storage)

- Audio and XML files must be stored on a public server. XML files are very small.
- Size requirements - Audio files will vary in size. Rough guideline 30 minutes = 49 MB. Your mileage may vary.
- 30 minute monthly podcast may require 600 MB per year
- 30 minute weekly podcast may require 2,548 MB per year

Website

- Provides introductory/background information to your subscribers

- I added a mailing list

- A secondary place for your copyrights

- You can provide a link to your feed (XML file)

- See www.patriotcast.com

Blog

- May be used instead of a website or in addition to.
- Entry titles are links to the audio files.
- Blog entries can describe the show's content and provide additional information such as links, quoted material and photos.

Review

- Need a microphone and perhaps a mixer
- Need headphones for monitoring the recording
- Need a website and or blog to store the audio files and the XML file

Show Format

- Standard Introduction (15 to 60 seconds)
- Bumper music (30 to 45 seconds)
- Episode Introduction 1 to 3 minutes)
- Bumper music (30 to 45 seconds)
- Topic 1 (5 to 10 minutes)
- Bumper music (30 to 45 seconds)
- Topic 2 (5 to 10 minutes)
- Bumper music (30 to 45 seconds)

Show Format

- Topic 3 (5 to 10 minutes)
- Bumper music (30 to 45 seconds)
- Episode Closing (1 minute)
- Closing music
- Voice Over standard Closure (15 to 60 seconds)
- Closing music

Music

- Beware of copyrights!
- Apple states it will take action against copyright infringements
- Sites that provide free, non copyprotected mp3 music
- I used local bands - Note copyrights in blog entries. I always obtained permission before using the music.

Feed

- Similar to a blog feed.
- XML file that contains a list of the URIs of the show's episodes.
- PodMaker - creates the XML file.
- XML file resides on your website or blog

Feed

- www.FeedBurner.com - Provides feed management technology … [that] delivers subscription services for publishers large and small so they can grow their reach, measure their audience and monetize their content.
  - Central place to store your XML file

Workflow

- Plan content

- Select bumper music

- Record content

- Edit and mix content and music

- Convert sound file

- Publish podcast

Trial and Error

- GarageBand - Flakely and limited to 25 minutes
- Audacity - Problem with music aiff files
- Feedburner - Couldn't provide proper XML enclosures
- Etc., etc…

Plan Content

- Three words – Content, Content, Content
- Personally I have found it very time consuming to develop content. Hours reading articles (WSJ and web)
- Strongly recommend a script or talking points, especially you use a monologue format
- Interviews are more entertaining

Record

- Record each segment separately.
- Beware of um's, ah's, etc.
- Strongly suggest you stop and correct any errors as you go. Difficult to patch in a correction, e.g., mispronounced a word.
- Check microphone volume before starting
- Beware of your distance from the microphone

Edit and Mix

- Try to minimize editing. Very time consuming
- Import music. I import directly from CD
- Keep vocal and music tracks separate
- Have music fade in and fade out
- Make a copy before the final mix down.
- Mix down - combines all tracks into one.

Sound Effects

- Audacity and Sound Studio add effects after the recording has been made
- GarageBand adds effects live. Note - GarageBand effects very easy to use.
- Audacity - Effects too difficult to use.
- Sound Studio - Effects almost as easy as GarageBand. I used Reverb and Normalize.

File Conversion

- Published file should be either mp3 or m4a file formats.
- File size will be reduced from 100's of MB to 10's of MB, e.g., 710 MB to 49 MB.

Sound Studio

- Settings - 44,100 Hz

- Raw aiff file is recorded at 32 bit float = 1.2 GB for 1 hour of recording

- Scratch Disk - You MUST be aware of your scratch disk location. Eats up disk space rapidly

Publish

- Need to upload the converted audio file and the updated XML file to your website or blog.

- Podcast Maker - Creates and maintains your XML file and uploads both your XML and audio files.

- The next day your podcast will appear in iTunes.

Publishing for the first time

- Launch iTunes and click on podcasts
- Click on Submit a Podcast
- Enter your feed URI, e.g., your Feedburner feed
- Hit Continue and….?
- NOTE - You can't delete a podcast from iTunes

Podcast Maker

- Maintains separate podcasts and episodes
- Edit a podcast - Title, Author, general description, website, category, explicit flag,owner, email,copyright, keywords, xml filename
- Edit an episode - Date, episode name, description, explicit flag, author, keywords, category (iTunes), server info (pathname)

Podcast Recognition

- Sign up to multiple aggregators
  - ipodder.org
  - Podcastalley.com
- Recognition of other podcasts
  - Adam Curry - The Daily Source Code

Thanks!

- **Questions and Answers**
- **Products and Links**
  - Sound Studio - www.felttip.com
  - Podcast Maker - www.potionfactory.com