**Podcasting for
Information Literacy**

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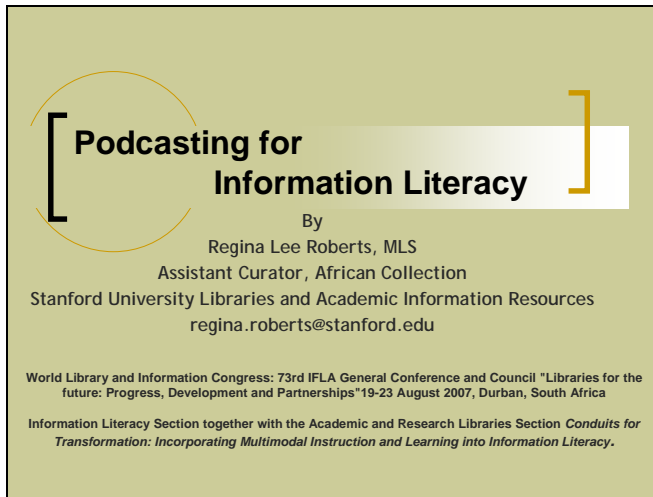
Information Literacy Section together with the Academic and Research Libraries Section *Conduits for Transformation: Incorporating Multimodal Instruction and Learning into Information Literacy*.
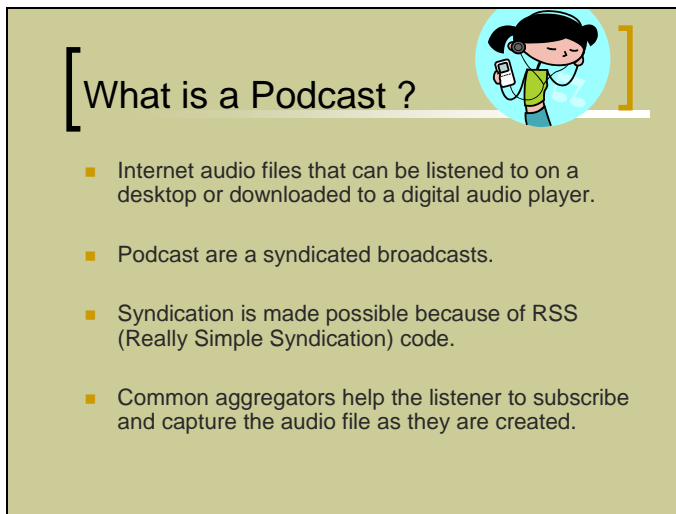
Podcasting for Information Literacy
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Abstract:

Podcasting is an alternate form of disseminating information literacy techniques that caters to the library user. It is useful for the auditory learner as well as distance education learner. Podcasting has the potential to engage all library users in an innovative way. With podcasting the library user is afforded control over when and where the content will be reviewed. This control is important in today's information saturated landscape. Within this format, there is a possibility that conversations can be created based on the structure and content of the podcasts. The desired outcome is that these conversations will lead to a deeper understanding of how to conduct research as well as what library services have to offer. An additional benefit for libraries is that podcasting enhances the visibility of library web pages and online presence. It engages rich media and creates interest because it demonstrates an exploration of new ways of delivering content to library users.

This paper will cover the basics of creating, editing and publishing of podcasts. It will cover the planning and implementation of a podcast program that can be utilized by librarians involved in teaching information literacy skills. Examples of how conversations and collaborations with faculty, students and librarians can be developed by using this medium are included.

Introduction:

Podcasting is a relatively new area for library services and covering the topic of *Podcasting for Information Literacy* includes the need to ask, what is a podcast? Podcasting is a way to deliver content over the internet using sound files. One does not need an iPod or mp3 player to listen to them. It is true that the files are syndicated so that they are part of a feed that can be downloaded into an mp3 player. However, the files can also be listened to on desktops and laptops. In most cases the file format is an mp3, but can be developed to include visual content in the m4a format as well. Currently, the mp3 format is the most readily accessible format.

Important to note is that podcasts are syndicated broadcasts. Otherwise they would just be sound files. What makes this possible is the RSS encoding. RSS stands for Really Simple Syndication. The RSS tags are what make the sound file able to be broadcast. There are online aggregators that collect new podcasts and push them out to subscribers as they become available using the RSS tags. However, the user can listen to the file without subscribing. It is a really flexible media and there are many tools for recording, editing and archiving. Methods for creating podcasts are described later on in this paper.

Why Podcasting?

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Podcasting is a viable rich media format that affords librarians new ways of delivering library-related content. This includes information literacy concepts, marketing of library services, and exploring other ways to collaborate with library stakeholders.

With regards to information literacy, some recent findings of a study conducted by the U.S. based group EDUCAUSE, supports the idea of incorporating podcasts into an information literacy curricula. In 2006, the Educause Center For Applied Research (ECAR), conducted surveys of 96 U.S. (2 year and 4 year) academic institutions. They found that 61.3 percent of the respondents reported that they owned some electronic music/video device, such as an mp3 player (Katz, 2006).

ECAR Study Key Findings in 2006

61.3% reported that they owned an electronic music/video device (MP3 player).

Up 22% from 2005.

70.6 % are familiar with downloading sound and video files.

27.7% create or edit audio and/or video files.

Katz, Richard N. (2006, December) *Key Findings: The ECAR study of undergraduate students and information technology, 2006.* EDUCAUSE. Available online at http://www.educause.edu/LibraryDetailPage/666?ID=ERS0606

The study also found that 70.6 percent of those students are familiar with downloading sound and video files and 27.7 percent create or edit audio and/or video files (Katz, 2006). This means that many undergraduates are already familiar with podcasts. Therefore, including podcasts in instructional design does not impose a huge learning curve for library clientele. It may even be expected that the library utilize this format. Many institutions are already using podcasting of course materials and in other areas such of teaching and learning such as art and language courses. So why not use it in information literacy as an additional method for reaching students and academic clientele?
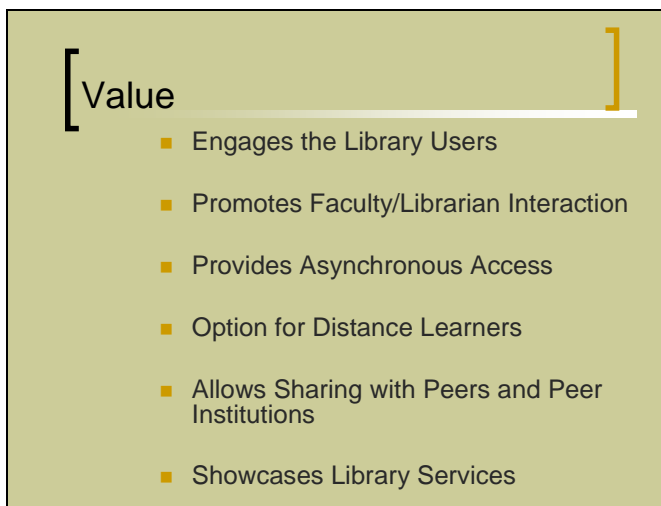
Some uses of a podcast series for information literacy include database descriptions, searching techniques, librarian interviews of faculty, research guides related to current courses, special guest lectures, new book reviews, and subject specialist introductions that include descriptive highlights of specific collections.

Podcast Series as a Component of Information Literacy Curricula

- Database descriptions
- Searching Techniques
- Faculty interviews conducted by librarian
- Research guides related to coursework
- Special Guest Lectures
- New book reviews
- Subject specialist introductions

- Engages the library users
- Promotes faculty/librarian interaction
- Showcase services
- Provides Asynchronous access.
- Option for Distance Learners
- Share with peer Institutions

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A focus of my interest in podcasting as a component of an information literacy curricula, is working with faculty to develop interviews about research methodology. This approach is learner-centered and conducive to self-reflection on the part of the librarian and faculty member. Thus, in the tradition of the pedagogy of Donald Shön, enhances the quality of instruction through the reflective practice. Typically, these podcasts relate to the specific course work that students are actively engaged in. For example, if a history professor has a web page or syllabus that can be posted online, the podcasts can coincide with the assignments or resources that are listed. The students are then able to access the brief sound files that highlight or reinforce information literacy concepts that actively relate it to the work that they are doing in a course. This connection is learner-centered and flexible.

Value

- Engages the Library Users

- Promotes Faculty/Librarian Interaction

- Provides Asynchronous Access

- Option for Distance Learners

- Allows Sharing with Peers and Peer Institutions

- Showcases Library Services

The value of podcasting:

The intrinsic value of podcasting is that it utilizes rich media and creates interest by exploring new ways of delivering content to library clients. Podcasts encourage increased collaboration between librarians and faculty. Another positive reason to use the podcast format as a part of an information literacy curricula is that the user can listen to the content according to their own time schedule. The learner can also revisit the podcasts and review what they may have missed or forgotten. Podcasting provides asynchronous access for time-shifted student learning. This is especially important for distance learners. This media allows the learner to decide when and where they will engage with the content. This is a great way to reach students in remote places or who may have schedule conflicts that make it difficult for them to attend an information literacy event at the library. This format also allows for sharing amongst peers and peer institutions. For the library, podcasting enhances the library web pages as well and can be used to showcase services, events and materials that

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increase the value of the library within the context of the greater institutional organization.

Once the initial equipment and software set up is complete and the first test runs are recorded and edited, the process can be streamlined. This makes it a viable tool for other librarians to use for their instructional design.

How to create a podcast:
Here are the basic steps for creating a podcast.

How to Create a Podcast:
Basic Steps

- Use a Planning Checklist
- Organize Content
- Record sound files
- Edit sound files
- Create online space for hosting files
- Add files to online space with RSS tags
- Include metadata descriptions of content.
- Market series to users

- Use a planning checklist
- Organize and prepare content
- Record sound files
- Edit sound files
- Create online space for hosting files
- Add files to online space with RSS tags
- Include metadata descriptions of content
- Market series to users

Once the content and audience has been determined, the planning checklist of a podcast series includes the following:

Planning Checklist

- Where to post the podcasts
- How many episodes in the series
- What equipment will be used?
- Budget for set-up
- Quality standards for the sound files?
- How much time allowed for editing
- Metadata?
- Captioning,Transcription & Translations

- Copyright issues
- Archived ?
- Will you need streaming server space
- Sound files that include slides or video?
- Availability of listening tools.
- Who are the production participants?
- Is thereInstituional support for this project or are you trying to create a reason for support?

- Where to post the podcasts
- How many episodes will be in the series?
- What equipment will be used?
- Budget for set-up
- What quality standards are required?
- How much time will be allowed for editing?
- Will detailed metadata of the files be provided and by who?
- Will captioning transcription, and/or translations be included?
- Is the content copyrighted?
- Will the content created by the librarian be copyright protected?
- Will it be archived and how?
- Will the podcasts only include sound files, or will they include slides or video?
- If it includes video, will space on a streaming server be needed?
- Will listening stations, headphones or mp3 players be provided for the intended audience?
- Who will be involved in the production of the podcasts?
- Will the service of a technology specialist be needed?
- Who will identify and work with faculty on creating content?
- Is there institutional support for this project?

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Where to Post the Podcast

- In a Blog
- On a Website
- In a Course Management System
  - In conjunction with faculty and based on course content.
  - Can be password protected, if needed.

Posting a podcast:

Podcasts can be posted in a blog, on a website, or in a course management system. The course management system will allow control over who has access. That may be a concern, especially if content is copyright protected material or specific to a course and the faculty member wants only his or her students to have access. The location of the podcast series may depend on how many episodes are being created and if they are going to be archived.

Equipment

- **Microphone & USB interface:**

- **M-Audio Podcast Factory** http://www.m-audio.com/products/en_us/PodcastFactory-main.html

- **Mac Laptop with OSX**
- **PC with Windows can be used as well.**
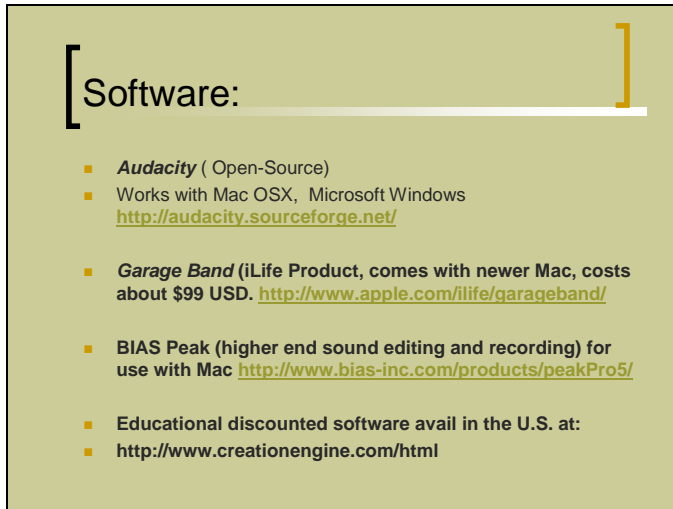
- **See Addendum for more options**

Equipment:

There are many options for recording and sound editing. For my podcasts I used a *Mac* and a *Mac Laptop* with recording and editing software from *Bias Peak*, *Audacity* and *Garageband.* I used a couple of different microphones including the *Podcast Factory* microphone which was a good option for the price. *Audacity* and the *Podcast Factory* can be used with a PC and *Microsoft Windows* as well. The *Podcast Factory* is extremely portable so
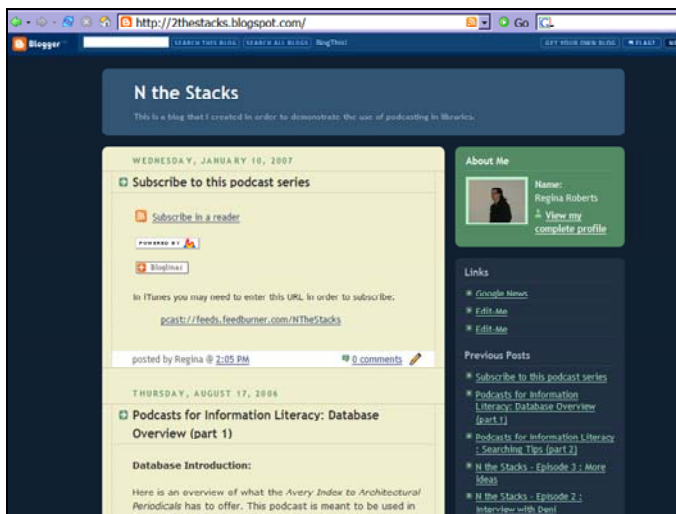
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people could set it up and use it in their office if they wanted or a sound booth can be set up a sound booth for recording sessions. Equipment resources are listed in the addendum.

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Software:

- ■ *Audacity* (Open-Source)
- ■ Works with Mac OSX, Microsoft Windows
  http://audacity.sourceforge.net/

- ■ *Garage Band* **(iLife Product, comes with newer Mac, costs about $99 USD. http://www.apple.com/ilife/garageband/**

- ■ **BIAS Peak (higher end sound editing and recording) for use with Mac http://www.bias-inc.com/products/peakPro5/**

- ■ **Educational discounted software avail in the U.S. at:**
- ■ **http://www.creationengine.com/html**

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Things to think about while recording are background noises such as fans or open windows or other people talking. It is advisable to try to reduce as much background noise as possible. When talking into the microphone people should try used controlled breathing and try not to touch the microphone or microphone stand. A microphone stand is optimal. If one gets too close to the microphone the sound will "clip", sounding too loud. Do a few test runs before starting the recording. Since this is not a live broadcast, the producer can usually edit out the unwanted pauses and little words like "um". However, to reduce editing time, it is best to incorporate some of the tips mentioned above. This is especially true if the plan is to produce a substantial number of podcasts. If the library has staff that is involved in the information technology (IT) aspects of the library, it is advisable to partner with them for help with the set up, recording, editing and posting of podcasts. In my samples, I enlisted the help of IT staff and found that the IT personnel were very interested in being a part of the project and they also helped me to complete the production faster. This type of collaboration adds to the insight of such a project as well.

Once the editing is done, the files are ready to be stored on a server, posted online and then tagged with a RSS code for syndication. In my case, I chose to post the files in a blog, found at http://2thestacks.blogspot.com/

In order to make the podcasts syndicated, I used *Feedburner*, http://www.feedburner.com/fb/a/home. *Feedburner* is open source software and creates the RSS tags automatically. It also provides statistical information about how many people have subscribed to the podcasts. This is useful for tracking projects. So, *FeedBurner* was used to create the RSS feed tags that send my podcasts episodes to *iTunes*. In general, users can access the files directly from the blog, from *iTunes* or from other podcast aggregators. These aggregators and other resources are listed in the *Resources and References* section of this paper.

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Additional Considerations:

Additional considerations should include captioning, metadata and copyright.

A link to a transcript of what is said is a way of providing access to content. Another option is to provide a link to a text posted on a webpage site or creates the text in the blog next to the sound file. It is also possible to summarize the content in notes. When sending podcasts to *iTunes*, descriptive metadata can be included in *iTunes* for the user to read in the show notes. Other guidelines for metadata and archiving can be found at W3C http://www.w3.org/. Depending on the libraries clientele, transcripts that are translated into other languages may need to be provided.
The sources for information on captioning are listed in the *Resource and Reference* section of this paper.

Copyright compliance and labeling is also important and can be done using *Creative Commons* guides. See the *Creative Commons Podcasting Legal*

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Guide at http://wiki.creativecommons.org/Podcasting_Legal_Guide for detailed information on this topic.

Examples:

Here are two samples of libraries that are already incorporating podcasting into their websites. I present these samples to demonstrate the variety of ways that podcasting is being incorporated into the delivery of library content and the development of information literacy skills. The first example is the Arizona State University Library.

The Arizona State University Library is using podcasts to provide tours, subject related lectures, news, and library mission statements and planning. What is interesting in this example is their organization of the types of podcast series that they offer. Here is a view of their website:

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http://www.asu.edu/lib/librarychannel/

The next example is from the Science and Engineering Library at University the University of California at Santa Cruz (UCSC).

University of California Santa Cruz is using sound and video podcasting to record a faculty lecture series. The library is archiving the lectures as well, which adds to the goals of life-long learning and advancing the library as a center for scholarly exchange. In essence it showcases the library as an active participant in scholarly communications.

One of the reasons why this example is included here is that, this model relates to the goal that many libraries have of providing information literacy for their community as a whole. UCSC's lecture series is called *Synergy* and it is also open to the public. Having the lectures archived in this way allows for more people to have access to the presentations. It also promotes the work of the faculty, the library and the institution in general.

Conclusion:

The goal is to use podcasting as a form of rich media to enhance information literacy curricula and conversations so as to assist library users in their personal development and knowledge creation process.

Thank you.

Resources and References
Podcasting

Aggregators and search tools

Juice (Formerly: Ipodder)
http://juicereceiver.sourceforge.net/index.php
Podcast receiver for mp3 players. You don't have to use *iTunes.* "Juice is technically a "Media Aggregator," a program that allows you to select and download audio files from anywhere on the Internet to your desktop."

iTunes
http://www.apple.com/itunes/download/
Media aggregator and Podcast receiver that allows you to subscribe to a feed. Free. Must be downloaded to your desktop to use.

Odeo
http://www.odeo.com/
Odeo is a creative way to **record** and share audio—and it's free. You can record audio and then share it with your Odeo contacts, by email, or by placing it in a Channel for all the world to hear. Audio from Odeo can be downloaded to desktops, iPods, and mp3 players. You can use your phone to record the audio file.

Podscope
http://www.podscope.com/
A search engine that allows you to search for words within podcasts. They are hoping to add the ability to search video webcasts as well. You can add a podscope search box to your site to enable people to search for words in your podcasts. A good reason to make the metadata rich.

Copyright

See: *Creative Commons*
http://creativecommons.org/

http://wiki.creativecommons.org/Podcasting_Legal_Guide

Getting started

Educause
http://www.educause.edu/content.asp?PAGE_ID=720&bhcp=1
Has a wide variety of podcasts on the topic of podcasting in education. Has links to more podcasting software and options.

Edupodder
http://www.edupodder.com/
Steve Sloan of SJSU has created this site that will help people to use podcasting in **education**.

Mr. Nice Guy Show
http://mrniceguy.org/
Podcast show about news and libraries by a reference librarian. Demonstrates an interesting **talk show style**.

NetSquared
http://www.netsquared.org/about
Using podcasts, blogs and other internet technologies to advocate for non-profit use of the internet. Their goals as stated are: "To help hundreds of thousands of non-profit organizations (NPOs) and non-governmental organizations (NGOs) successfully utilize the community empowering capabilities of the Internet to increase their impact and achieve social change." This is some of what open source software like Odeo are supporting.

Podcasting News
http://www.podcastingnews.com/
Online newsletter about podcasting, with many links to resources

What is a podcast?
http://podcasts.yahoo.com/start?i=1
by Yahoo.com
Easy to follow instructions and complete details of each step of the process. Good introduction to podcasting.

Online software and tools

Audacity
http://audacity.sourceforge.net/
Open Source software for **recording and editing audio files** for podcasts. Allows you to edit your recordings and also to convert other types of audio formats to CD.

Feedburner
http://www.feedburner.com/fb/a/home
Helps you upload your audio file to your blog with the correct tags and so that your file will be available online. It also lists the podcast to podcast readers like iTunes, or juice. Helps with **syndicating** feeds.

"Making a podcast with Blogger and Feedburner"
http://www.podcastingnews.com/articles/Make_Podcast_Blogger.html

Feed for all
http://www.feedforall.com/
Allows users to easily create, edit and publish RSS feeds. (Fee based, About $40 for personal)
Here is their link for podcasters http://www.podcasting-tools.com/
Here is the link to the podcast tutorial http://www.podcasting-tools.com/how-to-podcast.htm

Software

Media Access Generator (*MAGpie)*
http://ncam.wgbh.org/webaccess/magpie/
Captioning software for educational institutions.

Shared Knowledge Base using *Drupal* software http://drupal.org/
Can be used to host podcasts.

Standards

W3C (World Wide Web Consortium)
http://www.w3.org/

NCAM National Center for Accessible media and WGBH rich media captioning
http://ncam.wgbh.org/richmedia/

Rich Media Samples

Academic Computing Technology Podcast Series
http://academiccomputing.stanford.edu/cams/2006/03/academic-technology-podcast-series.html

Arizona State: The Library Channel
http://www.asu.edu/lib/librarychannel/

N the Stacks - Regina's blog with information literacy podcasts
http://2thestacks.blogspot.com/

Steve Sloan –*Edupodder* @ SJSU
http://www.edupodder.com/

Synergy Lecture Series @ UCSC
http://library.ucsc.edu/science/synergy/index.html

YouTube creation - *A Librarian's 2.0 Manifesto*, by Laura Cohen, 2006.
http://www.youtube.com/watch?v=ZblrRs3fkSU
This is actually a podcast with slides.

Supporting Documentation and References

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Worcester, L. & Barker, E. "Podcasting: Exploring the Possibilities for Academic Libraries", *College & Undergraduate Libraries,* vol. 13, no. 3, pp. 87-91.

Addendum:

Podcasting: Equipment for Sound Recording Projects
(This is not an exhaustive list. Pricing is based on U.S. market and 2006 estimates.)

Tried 3 different sound editing programs
- Peak – not free has more features.
- GarageBand- free with newer Macs
- Audacity- free and recommended. For use with Macs and Windows

Used prosumer level equipment for the 3 episodes (not professional broadcast quality but above the average consumer range.)

Prosumer level:

Here's the hardware/software configuration for the recording studio used for the first 3 samples:

Macintosh G5 ($3,634) (Purchased 11/03)
Dual 2GHz PowerPC G5
 1GB DDR400 SDRAM (PC3200) - 2x512
2x250GB Serial ATA - 7200rpm
ATI Radeon 9600 Pro
Apple Studio Display (17" flat panel)

Bias Peak 4.1 DV (Audio Editing Software)($149)
http://creationengine.com/html/pr_search.html

Audio Technica 3035 Microphone + **Pop Stopper**, XLR cable ($199)

Omni I/O Preamp ($228.25)
http://shop.synthplanet.com/product.lasso?c=US&pr=16059&newlang=en

M-Audio Omni Quattro USB Audio Interface (no longer available)

Consumer level:

GarageBand 3 (Mac only, part of iLife '06 comes free with new Macs…can be purchased for $59)

Logitech USB mic ($50)
http://www.logitech.com/index.cfm/products/details/US/EN,CRID=103,CONTENTID=10013

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There's free audio software such as audacity that's cross-platform, open source http://audacity.sourceforge.net

M-Audio Podcast Factory ($179.95)
http://www.m-audio.com/products/en_us/PodcastFactory-main.html
Includes desktop microphone, USB interface and software.

Portable recording options:
(lower quality sound, but good for interviewing outside the studio)

Olympus DS 330 Digital Voice Recorder

Crown Sound Grabber II (PZM mic)
$64.99
http://www.crownaudio.com/mic_web/soundgrabber.htm

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iTunes – **must be downloaded to your desktop first**

To subscribe to the sample podcast you go to *iTunes*, click on "Advanced" then choose subscribe to podcast and enter this link to the feed:

pcast://feeds.feedburner.com/NTheStacks