

Audio Training

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Agenda

- Day 1
 - Why Audio? – Christy
 - What is Audio? – Rick
 - Learning to use hardware and software to create audio files – Rick
 - Extending your knowledge with voice in PowerPoint – Rick, Christy, Donnie
 - Podcasting Overview – Rick
- Day 2
 - Creating your own podcasts – Rick
 - VoiceThread - Christy
 - Articulate – Donnie
 - Other things you can do with your audio files

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What is digital audio?

- Terms
 - Frequency (human)
 - Sampling rate
 - 8-bit, 16-bit
 - File formats (wav, mp3, midi, etc.)
 - Compression (lossy versus lossless)
 - Stereo/mono
 - Noise reduction
 - Quality

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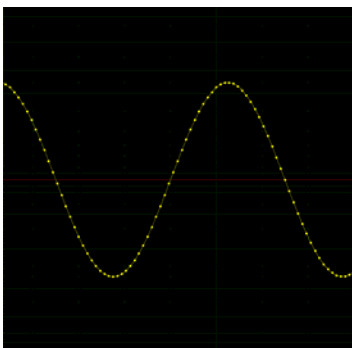
What humans hear

- 20Hz to 20,000 Hz, or 20kHz
- Voice
 - 80 Hz to 12,000 Hz

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Audio Wave



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Sampling Rate, Bit Depth, Mono/Stereo

- What is it?
 - 44,100 Hz
 - 32,000 Hz
 - 22,000 Hz
- Bit Depth
 - 8-bit
 - 16 bit
- Mono versus Stereo

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What's behind a music CD?

- 44,100 samples/sec x
- 60 seconds/min x
- 50 minutes/album x
- 2 bytes/sample x
- 2 channels (stereo)
- =
- 529 Mbytes on a CD

- Or approximately 60 minutes of music on a CD

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Compression

- MP3
- Others

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File formats

- .wav (PC)
- .aiff (Mac)
- .mp3
- .acc
- .wma
- .rma???

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Recommendations

- Record at 44.1 kHz, stereo, 16-bit
- "Downsample", or downsize, from there

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Eliminating Noise

- Buy a good quality microphone
- Control your recording environment
- Control your voice (correct volume)
- Digitally edit and enhance your recording

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Uses of Audio

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Uses of Audio

- Move file to Blackboard
- Email file to students
- Voice on PowerPoint
- Podcasts
- VoiceThread
- Move to mobile devices (iPod, cell phones)
- Voice to text
- Move to website, embed in webpage
- Videos

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