DESN 275 Digital Sound

Dr. Jim Braukmann

Importance of sound

- Our favorite music. Themes for life's activities.
- Our dominant communication medium.
- Quick at making us comfortable or not.
- At least 50% of film and advertising experience.
  - Try turning off the sound and watching…
  - Visual effects often become lame.
- Required for game experience.

Most important skills?

- Specific Software? Not so much.
  - Many popular tools: Logic, Ableton, Cubase
  - The interface/metaphor is common: "mixer"
  - Most DAWs copy each other.
  - Software changes yearly anyway. Specific software skills have a short "half life."
  - Pro Tools has been a standard for some specific jobs. Good at managing very big projects. But even that is changing.

Common Software Skills

- Recording
  - Setting up hardware to interact with software, getting different types of software to interact
- Editing
  - Cropping and rearranging sound clips, editing tone, depth, dynamics, and panorama
  - Putting sounds together in a way that is complementary and not masking
- Creating
  - Sound spaces that sound like physical spaces
  - New designed sounds
  - Musical compositions from loops and MIDI sequencer

What about Fidelity?

- The microphone and recording environment is more important than the software.
- A recording should sound like the talent (artist).
  - Often needs to sound better than the talent.
  - Should sound as good as your best competitor
- The sound *and* the message clearly communicate to the listener.
- Perception: Is it "hard to understand"?

Listening

- Accurate listening skills for evaluation:
  - Be able to describe sound precisely.
  - Compare and contrast.
- Being able to observe what is out there:
  - What *should* a particular physical space sound like?
  - What makes a sound sound *close*?
  - What makes particular sounds "hard to hear"?

Listening

- Be able to listen to an accurate representation of the sound
  - Not colored by your room
  - Not colored by your speakers
  - Not colored by your headphones

- …and to understand how someone else's room, or microphone, or their speaker, or headphones, and the listener's brain, are modifying a sound.

Production Skills

- Know what needs to be done to record well.
  - Identify problems, causes, and ways to avoid them. (Better than *trying* to fix a poor product afterwards.)

- Understand how sound will affect people.
  - What are we communicating that make sound a better choice than a picture or paragraph?
  - Then apply it to the project, whether music, informational products, film, video, or promotional products.

Organizational Skills

- Surprisingly important organizational skills
  - 500 files in a project?
  - 100 projects in your portfolio?
  - Several apps and 10+ audio plugins per project.
- We must
  - Plan and manage folders
  - Insist on logical naming conventions
  - Back up absolutely
  - Document what you did: hardware, software, settings

Changes in Process

- Previously, big studios did all the big productions.
- Big studios are still the best for sounds that benefit from an accurate acoustic space, like drums or classical music.
- Some people still like the sound character of tape. Good natural reverberation requires a very special room.
- But most projects now involve, or at least start with, the private studio. Or even just a computer.

In This Class

- Hopefully we will have time to listen to projects we create in this class and ask:
  - What am I hearing? Why is it good or how could it be improved?
  - How does it affect *me*?
  - How did s/he do that?

- I will also ask for specific technical details from you related to levels and frequencies and the occasion of distortion, etc. …to help you learn the technical language.