Session 2: Audio capture

University of California at Santa Barbara, June 24-27, 2008

Arienne M. Dwyer
University of Kansas

Yoshi Ono
University of Alberta
Session 2’s focus

- Your recording questions
- Evaluating “homework” recordings
  - Capturing your recordings
    - Overview
    - Getting digital recordings to a computer
    - Using Audacity
- Capturing analog recordings
- Microphone hardware and placement
Your questions?
Batteries, Tripod, Cables, connectors

Batteries

- Single-use
  - Alkaline
  - Lithium
- Rechargeable
  - NiCad, NiMh
- Solar
- memory effect (none in Sanyo Eneloop)
- Accessories: charger(/discharger)

Tripods
Cables and connectors

- Cables
- Jacks – XLR f / m
  - mini – mono / stereo
Steps in **audio capture**, overview:

- Audio capture/transfer (to computer - today)
- Save a copy, keep good records (Session 4)
- Audio editing (with software - today)
- Audio analysis/visualization (Session 3) – with tools like Transcriber and Praat
- Audio preservation (Session 4)
Transfer your recording to your desktop

- Connect your recorder to the computer via the USB cable
- Find the SD drive in “My Computer” (or, click on the “new hardware” icon)
- Copy the recorded file(s) to your desktop
- (Note, if to laptop with card reader): carefully remove SD/CF card from device and insert in laptop’s card reader [not relevant here]
- Open up Audacity (under *Linguistics*)
- Check your recording – did it record? How is the volume? Background noise? Are the intended speakers’ voices prominent? How many spkrs?
- Shortcut: `[spacebar]=play`
- Find: the frequency, length, stereo/mono
- Pauses – can you find the utterance boundaries just by looking at the wave form? The vowels?
Keep a pristine (unchanged) original version
- LOCKSS (lots of copies keeps stuff safe)
- You or others may want to go back to the original

First, save a copy with a new name
- Rename the file with a unique, concise, and explanatory label
- develop your own system; recommend is date, lg code etc.

Playing, Selecting, Cutting, and Pasting
- To chop one file into two sessions
- To excerpt a portion (segment/clause/utterance) for presentation

Exercise: cut a portion out of your recording and save it as a new file – play this file
- Icons or Shortcuts: Cntrl-X [cut] or Cntrl-C [copy]
- File-New, Cntrl-V [paste] -- then save under a new name
- Other: Cntrl-t [Trim, removes material outside the selection], Undo, Trim Silence selection (e.g. to remove a long pause or goat noises from recording
Navigating in Audacity

- Zooming in and out
  - use the (+/-) magnifying icons
  - Can zoom whole recording or a portion
  - Helps find boundaries to select and/or cut

- Practice “looping” a sound
  - Helps us find boundaries + do transcriptions
  - With the mouse, select part of the recording
  - Press Shift + play button

- Cut & save your utterances, words, & sounds
Other digital recorders:

- MP3 (Zen, iPod, many small music players), Minidisc
  - designed for putting music in only
  - must have a digital out to be at all useful
- DAT recorders
  - digital out + special cable (Sony=optical)
From your recording, chop the following:

- Two whole utterances
- Any two words from these utterances
- Any two sounds

Save each of these with systematic names

- e.g. if the original full-length recording file is called SA001.wav or SA25Jun08.wav, then....
- How to name the utterances, words, & sounds?
Digital capture may involve:

- copy (e.g. from CF or SD card)
- transfer + conversion (e.g. from DAT tape or MP3/Minidisc to computer as wav)

Analog conversion:

If you have analogue audio (e.g. cassette or reel-to-reel tape) --> Analog-to-Digital (A/D) conversion
Old recordings are important to preserve
- Before the format goes out of date
- Before the tape degrades (esp. w/long tapes)
- Have a professional digitize your tapes, or
- Learn the most and do your own

We’ll demonstrate analog capture here
- Need: recorder + cable + sound card + sw
- Clean the heads
- Set up the capture
Digitizing analog files is important

- Preservation
- Ease of manipulation in digital format
Analog capture recommendations

If you have...

- Reel-to-reel tapes >> bring to professional
- Cassettes >> professional or d.i.y.
  - Professional: usually expensive but quality
  - Do-it-yourself
    - Need cassette player, cable, linear sound card, Audacity
      - Laptop capture (via external card – today)
      - Desktop capture (via internal or ext. card)
        - Do not use the built-in sound card of the desktop!
        - Either have a linear sound card built in, or
        - Attach an external sound card to your desktop
- Attach sound card to laptop & player
- Open audio editing software (e.g. Audacity)
- Testing: Adjust & monitor the recording level
  (Troubleshoot computer’s audio settings); rewind audio to start
- Capture (while wearing headphones):
  1. On player, press Pause & Play
  2. In editing software, push the record & pause buttons
  3. Release both pauses and let ‘er rip! Monitor levels
  4. Stop software, and save.
- Digital capture
- Audio editing
- Analog capture
- Peripherals (batteries, cables, tripods)
- Homework: Chopping and labelling