1 Syllabus

- Instructor info
- Course description
- Intended learning outcomes

2 Student selection process

- Class is typically overenrolled by a factor of 2 or 3
- Music majors, minors, concentrators and upperclassmen will generally be prioritized
- But your personal background and interests will also be considered
- Please fill out the provided questionnaire
- I will email you before second class meeting on Mon, 9/12, announcing either that
  - you are accepted and need to confirm, or
  - I cannot offer you a place this semester, or
  - you have been put on the waiting list.

3 Syllabus, ctd.

- Locations of interest
- Recording equipment at MIT
- Required hardware and software
- Recommended textbooks
- Assignments, quizzes, and grading
- Schedule
4 Music (and) technology

4.1 What qualifies as music technology?
- Discussion: What do we think of as ‘music technology’?
- __________________________
- __________________________
- __________________________
- __________________________
- __________________________
- Discussion of pre-class reading (rdoo assignment, Eno 2004): *The studio as a compositional* tool
- Artists of 20th century realize creative potential of studio technology across musical genres (e.g., Gould 2004)

4.2 What do we need to record music?
Let’s brainstorm together:
- __________________________
- __________________________
- __________________________
- __________________________
- __________________________
- __________________________

4.3 The music production process

![Figure 1. The music production process (after Eargle 2003, p. 326)](image)

4.4 Words, words, words…
Music technology glossaries and jargon busters:
- Bohn (2017)
- Los Senderos Studio (2017)
- Recording Institute Of Detroit (2014)
- Sound on Sound (2014)
5 Technologically mediated listening

Three layers of technological mediation:

5.1 Tympanic principle
• Sound can be transferred from one medium to another.

The vibrating diaphragm that allowed telephones and phonographs to function was itself an artifact of changing understandings of human hearing. (Sterne [2003] p. 7)

• What is the “vibrating diaphragm” that Jonathan Sterne refers to?

5.2 Electroacoustic principle
• Special case of tympanic principle: Sounds can be represented by electrical signals.
• Electric medium offers many advantages for sound representation

5.3 Digital principle
• Additional layer: Continuous signals (such as electrical signals representing sound) can be represented as streams of discrete numbers.
• Conversion through ADC (analog-digital converter) and DAC
• Affords additional amenities, such as digital signal processing (DSP)

6 Preview

6.1 WR1 assignment
How do Edison’s speculations about phonograph applications compare to actual use of sound recording technology today?

6.2 RD01 assignment
• Short video documenting Christina Kubisch’s Electrical Walks (2003)
• Opening a discussion about the physics of sound from an artistic angle
References & further reading


