Automated Lecture Transcription
Enhancing Podcast Production Workflows

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Background

James Glass from CSAIL at MIT

• Created a system to automatically transcribe and index academic lectures
• Why?
  • Spontaneous speech (starts/stops, partial words, etc.)
  • Highly specialized subject-specific vocabulary
• Focus on processing to enable search and retrieval (display)
Background

- Developed workflow, processor and browser
  - [web.sls.csail.mit.edu/lectures/](web.sls.csail.mit.edu/lectures/)
- Prototyped with lecture and seminar video/audio
- MIT OpenCourseWare (~300+ hours of lectures)
- MIT World (~80 hours of seminars)
- Supported with iCampus MIT/Microsoft Alliance funding for innovation in educational technologies
Towards a Lecture Transcription Service

Transition from research to a production service

- Develop prototype production service
- MIT and UQ
- Requirement gathering
  - Internal (sample projects)
  - External (hosted service, community?)
- Community of practice/users?
MIT OEIT Projects

- OpenCourseWare
  - Subject domains, terminology
  - Search and retrieval
  - Facilitate translation (automated?)
  - Accessibility
- MIT 150th Anniversary Interviews
  - Highly accurate transcripts
  - Search and retrieval
Lecture Transcription System Workflow
Demos

- Spoken Lecture Browser
  - web.sls.csail.mit.edu/lectures/
- Google Audio Indexing
  - labs.google.com/gaudi
Thanks!

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