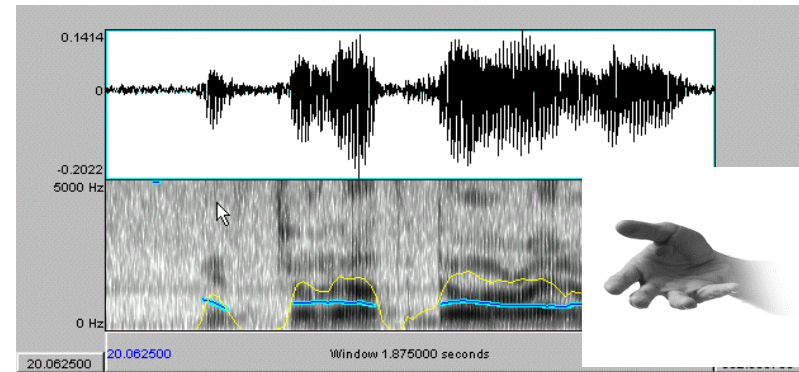


The Human Language and Communication (HLC) Program

Mary P. Harper



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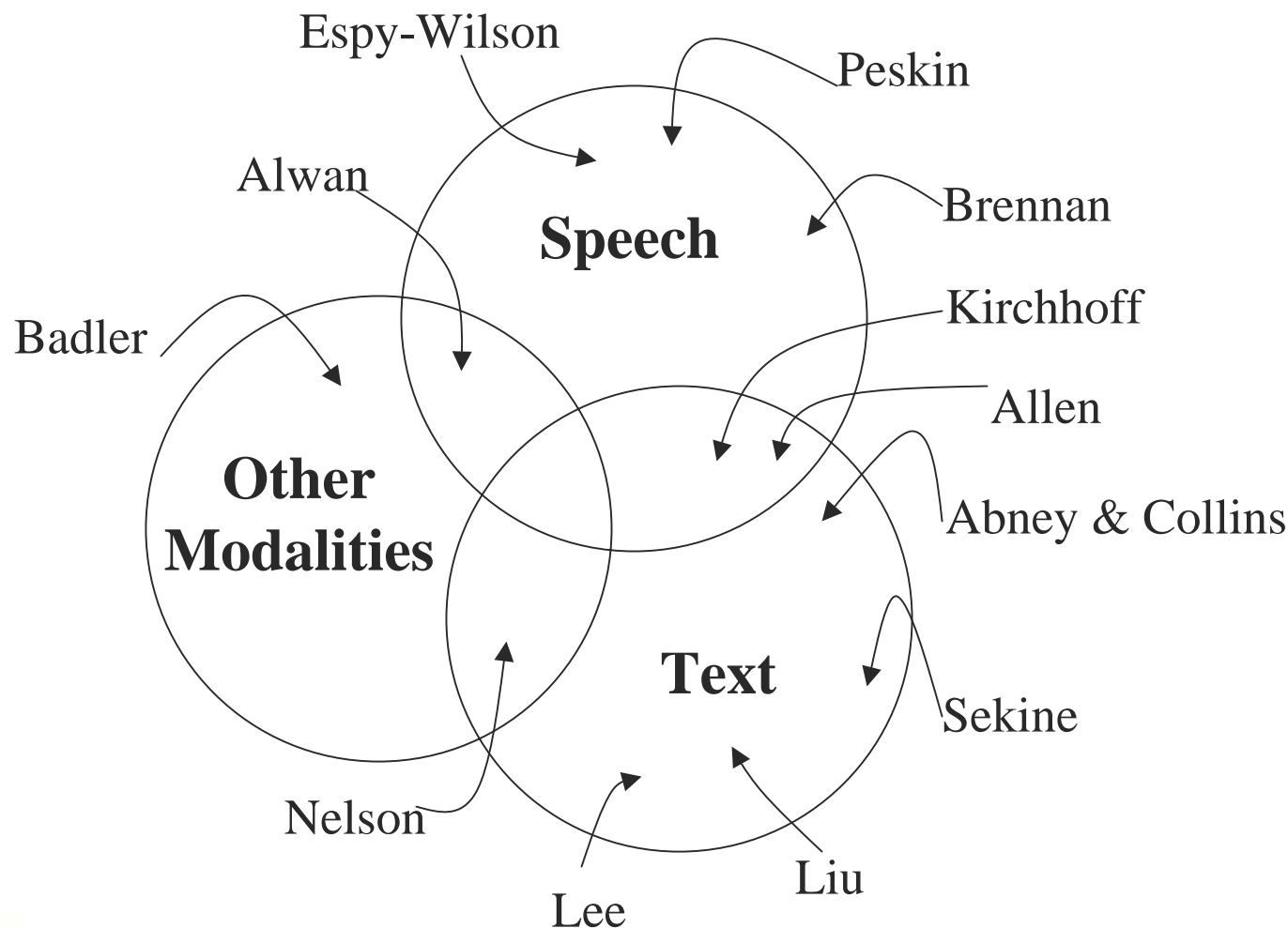


HLC Program Mission

- The goal is to advance the state of the art in computer processing of **text, speech, and multi-modal communication**.
 - **Deepen our understanding** of the underlying intent and realization of these communicative forms.
 - **Encourage research that promotes sharable language data resources**, modular, extendible and reusable code, tools, and evaluation metrics and methods.
 - **Build a solid base of research findings to support timely application** of language technology to critical needs, e.g., homeland security, teaching and learning



Examples of Recent Awards



Examples of Recent Awards

■ Text

- Abney & Collins: Semantic Entity and Relation Extraction from Web-Scale Text Document Collections
- Sekine: ITR: On-Demand Information Extraction
- Liu: On Partially Supervised Text Classification
- Lee: Graph-based Approaches to Text Processing

■ Text & Speech

- Kirchhoff: Using Machine Translation to Bootstrap Speech Recognition Systems
- Allen: Continuous Understanding
- Ostendorf: ITR: Applying Translation Technology to Language Modeling
- Rambow: Arabic Dialect Modeling for Speech and Natural Language Processing



Examples of Recent Awards

■ Speech

- Waibel: ITR: Domain Unlimited Speech Translation
- Espy-Wilson: Acoustic-Phonetic Knowledge and Speech Recognition
- Brennan: ITR: Adaptive Spoken Dialog with Human and Computer Partners
- Hirschberg: Dialogue Prosody in Interactive Voice Response Systems
- Peskin: Modeling Idiosyncracies in Speaking Behavior

■ Other Modalities (+ Text or Speech)

- Badler: Synthesis and Acquisition of Communicative Gestures
- Nelson: Grounding Language in Visual Percepts
- Neidle: Pattern Discovery in Signed Languages and Gestural Communication
- Stone: Making discourse visible: Realizing conversational facial displays in interactive agents



Outside Co-funding in FY'03

- Medium ITR and Regular Program Proposals
 - Identified Proposals of Interest
 - Participated in Review Panel
 - Peer Review Panel and Program Manager Input
- ITIC supplements to NSF PI's



HLC Sponsored Workshop Activities

- **Directions in Dialogue Processing (May 31, 2003)**
- **NSF Symposium on Next Generation ASR (October 7-8, 2003)**
- **Perspectives on Speech Separation Workshop (October 31-November 2, 2003)**
- **Perceptive Animated Interfaces and Virtual Humans (date to be determined)**

