

Natural Language Processing

Artificial Intelligence

CMSC 25000

February 28, 2002

Agenda

- Why NLP?
 - Goals & Applications
- Challenges: Knowledge & Ambiguity
 - Key types of knowledge
 - Morphology, Syntax, Semantics, Pragmatics, Discourse
 - Handling Ambiguity
 - Syntactic Ambiguity: Probabilistic Parsing
 - Semantic Ambiguity: Word Sense Disambiguation
- Conclusions

Why Language?

- Natural Language in Artificial Intelligence
 - Language use as distinctive feature of human intelligence
 - Infinite utterances:
 - Diverse languages with fundamental similarities
 - “Computational linguistics”
 - Communicative acts
 - Inform, request,...