Final Review

Linguistics 384 (Meurers)

For the Exam on Tuesday, December 5, 2006, 11:30-1:18, Central Classrooms 345

1 Topics to be covered

- Grammar Correction (plus minimum edit distance for spell checking)
- Machine Translation
- Social context of language technology use

2 Format of the exam

You will have the entire 1:48 should you need/want it, but it should be doable to complete it in around one hour.

- 1. Term matching: (see below)
- 2. Calculations/Short answers:
 - Minimum edit distance
 - Venn Diagrams
 - Text alignment
 - Bag of words method
 - Context-free grammars
 - Syntactic trees
 - Transformer systems
 - Direct transfer systems
 - Interlinguas
 - Social context of language technology use

3 Terms to know

3.1 Grammar checking/context-free grammars (CFGs)

syntax
 directly and indirectly recursive rules

- linear order - generative

- constituents - structurally ambiguous

syntactic tree
category
lexical category
infinite

- morphology - context-free grammar
- function word - pushdown automaton

function word
open class
closed class
parsing
parsing

- phrase structure rule - local syntactic errors

- recursion - long-distance syntactic errors

3.2 Machine Translation

- transformer architecture

machine translation
 (lexical) ambiguity
 structural ambiguity
 direct transfer
 transfer component
 comparative grammar

source language
 target language
 hyponym
 hypernym
 synonym
 interlingua
 translation triangle
 robustness
 text alignment
 sentence alignment
 word alignment
 machine learning
 training data
 bag of words

- dictionary - underlying representation

lexicon
lexical gap
light verb
idiom
reversibility
intelligibilty
accuracy
error analysis
test suite
taboo words

3.3 Social Context of (Language) Technology Use

- Deskilling - Dewey decimal system

- Upskilling

Metasearches
 Artificial intelligence