

Final Review

Linguistics 384 (Meurers)

For the Exam on Tuesday, March 15, 2005 (at 11:30!, note unusual time)

1 Topics to be covered

- Grammar Correction
- Machine Translation (MT)
- Computer-Aided Language Learning (CALL)
- 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. Matching: 10-20 terms [see below]
2. Calculations: 2-4 questions
 - Phrase structure rules & syntactic trees
 - Venn Diagrams
 - Concordancing
 - Bag of words method
3. Short answer: answer 5-10 out of 10-15
 - Context-free grammars
 - Syntactic trees
 - Transformer systems
 - Direct transfer systems
 - Interlinguas
 - Text alignment
 - Bag of words method
 - First and Second Language Learning
 - Using NLP in CALL
 - CALL exercise types (and motivation for them)
 - Feedback
 - Social context of language technology use

3 Terms to know

3.1 Grammar checking/context-free grammars (CFGs)

- syntax
- linear order
- constituents
- syntactic tree
- category
- lexical category
- morphology
- function word
- open class
- closed class
- phrase structure rule
- generative
- structurally ambiguous
- hierarchical
- recursive
- infinite
- context-free grammar
- pushdown automaton
- stack
- parsing
- local syntactic errors
- long-distance syntactic errors

3.2 Machine Translation

- translation
- machine translation
- (lexical) ambiguity
- structural ambiguity
- source language
- target language
- hyponym
- hypernym
- synonym
- interlingua
- translation triangle
- dictionary
- lexicon
- lexical gap
- light verb
- idiom
- reversibility
- transformer architecture
- direct transfer
- transfer component
- comparative grammar
- robustness
- text alignment
- sentence alignment
- word alignment
- machine learning
- training data
- bag of words
- underlying representation
- intelligibility
- accuracy
- error analysis
- test suite
- taboo words

3.3 Computer-Aided Language Learning

- first language acquisition
- Motherese
- stages of learning
- second language acquisition
- implicit instruction
- explicit instruction
- transfer errors
- frame-based systems
- algorithm
- concordance
- lemmatization
- morphological generation

- syntactic generation
- meta-linguistic knowledge
- mal-rules
- error typology
- student model
- lemmas
- feedback
- explicit correction
- recast
- clarification request
- metalinguistic feedback
- elicitation
- repetition

3.4 Social Context of (Language) Technology Use

- Deskillling
- Upskilling
- Metasearches
- Dewey decimal system
- Artificial intelligence