

Final Review

Scott Martin (Linguistics 384)

For the Final exam on Thursday, March 12th 2008
1:30 PM – 3:18 PM in 29 Derby Hall

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
- linear order
- constituents
- syntactic tree
- category
- lexical category
- morphology
- function word
- open class
- closed class
- phrase structure rule
- recursion
- directly and indirectly recursive rules
- generative
- structurally ambiguous
- hierarchical
- 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 Social Context of (Language) Technology Use

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