**Term Project Ideas – Intention**

The goal behind this assignment is to have you become familiar with a specific research area and take a stab at moving the state of the art forward. The project could be primarily linguistic analysis or primarily a description of algorithms or an implementation or something in between. You are welcome to work alone or in 2 person teams. You should assume that you will read something like 3 or 4 papers over and above the class required readings to ground yourself in the research area. You will present one of these papers in class during the last few weeks of the semester, to motivate your choice of project, prior to short description of the project. You will then define an experiment or a set of analyses or a system that you will run, perform or implement, respectively, to explore some aspect of your research area.

Your **project proposal** should be one or two pages summarizing your topic, your goals, and your methodology for achieving those goals. It should also have the citations of the relevant papers and indicate which paper you will be presenting and any constraints on dates around your presentation.

Think of your project in terms of doing preliminary work that you could use in submitting a proposal for a major new research project. You only have to do enough preliminary new research to clearly define your approach, or to justify it. Your justification could potentially also be in the form of results from another area, such as psycholinguistics, that provides compelling evidence for why your approach could be better than the current state of the art. You are expected to turn in a 5-10 page, single spaced **paper** describing your project, and give a 20-25-minute **presentation** on it.

In addition to your own Term Project, you are expected to be a **discussant** on another project. The Discussant assignments will be posted on the web page once the term projects are finalized. That will involve reading the project background paper(s), asking constructive questions during the project presentation, and turning in an evalutation form that will be provided.

Past Projects

* Look at the web pages for previous versions of LING7800 to see what other students have done.

**Term Project Ideas:**

Preposition super sense tagging, Hindi/Chinese/Korean/Other language?, compare PB function tags to Preposition super senses

DARPA CwC and DTRA - eTASC: 1) verb specific features for classes; 2) GL-VN mappings; 3) VerbNet SRL

NSF UMR: Discourse Frame files for PropBank (English, Arabic, Hindi or Chinese) English: Run AMR parser on Penn TB, also extract PDTB discourse connectives, map them to AMR concepts; Create PB style Frame Files that codify current practice

Or topics based on recent ACL papers, or papers on class web page with \*, some of these have more current versions:

Special Issue of the *Computational Linguistics* on Formal Distributional Semantics

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Articles

Formal Distributional Semantics: Introduction to the Special Issue

Gemma Boleda and Aurélie Herbelot

There Is No Logical Negation Here, But There Are Alternatives: Modeling Conversational Negation with Distributional Semantics

Germán Kruszewski, Denis Paperno, Raffaella Bernardi, and Marco Baroni

RELPRON: A Relative Clause Evaluation Data Set for Compositional Distributional Semantics

Laura Rimell, Jean Maillard, Tamara Polajnar, and Stephen Clark

Integrating Type Theory and Distributional Semantics: A Case Study on Adjective–Noun Compositions

Nicholas Asher, Tim Van de Cruys, Antoine Bride, and Márta Abrusán

Aligning Packed Dependency Trees: A Theory of Composition for Distributional Semantics

David Weir, Julie Weeds, Jeremy Reffin, and Thomas Kober

Representing Meaning with a Combination of Logical and Distributional Models

I. Beltagy, Stephen Roller, Pengxiang Cheng, Katrin Erk, and Raymond J. Mooney

<http://www.mitpressjournals.org/toc/coli/42/4>

Fast and Robust Neural Network Joint Models for Statistical Machine Translation

<http://acl2014.org/acl2014/P14-1/pdf/P14-1129.pdf>

Linguistic Structured Sparsity in Text Categorization. Dani Yogatama

and Noah A. Smith.

<http://www.cs.cmu.edu/~nasmith/papers/yogatama+smith.acl14.pdf>

Karl Moritz Hermann; Dipanjan Das; Jason Weston; Kuzman Ganchev

*Semantic Frame Identification with Distributed Word Representations*

Denis Paperno; Nghia The Pham; Marco Baroni

*A practical and linguistically-motivated approach to compositional distributional semantics*

<http://aclweb.org/anthology/P14-1009>

Nal Kalchbrenner; Edward Grefenstette; Phil Blunsom

*A Convolutional Neural Network for Modelling Sentences*

[*http://aclweb.org/anthology/P14-1062*](http://aclweb.org/anthology/P14-1062)

Socher et al. Grounded Compositional Semantics for Finding and Describing Images with Sentences

<http://www.aclweb.org/anthology/Q/Q14/Q14-1017.pdf>

Alona Fyshe; Partha P. Talukdar; Brian Murphy; Tom M. Mitchell

Interpretable Semantic Vectors from a Joint Model of Brain- and Text- Based Meaning

<http://www.aclweb.org/anthology/P/P14/P14-1046.pdf>

Low-Rank Tensors for Scoring Dependency Structures

<http://people.csail.mit.edu/tommi/papers/Lei-ACL14.pdf>

Efficient Non-parametric Estimation of Multiple Embeddings per Word in Vector Space (accepted long paper for EMNLP 2014)

<https://people.cs.umass.edu/~arvind/emnlp2014.pdf>