

---

Computational linguistics is the science of language with particular attention given to the processing complexity constraints dictated by the human cognitive architecture. Like most sciences, computational linguistics also has engineering applications.

---

### General Areas of Interest

- Metaphor and Sense Extension      Formal Semantics (e.g. natural language generics)
- Human reasoning with generics      Modality
- Language Evolution      Foundations of HPSG
- Formal language theory      Formal Syntax in HPSG
- Dialog Grammar and Semantics      Grammar development and proofing tools
- Text Classification      Sampling methodology

...

### Postgraduate course dissertations

1. Dominika Borek  
*Computational Framework for Prosody Analysis*  
MPhil in Speech and Language Processing (Under Examination).
2. Derek Kelleher  
*Processing Effects of Negation with Novel Metaphor*  
MPhil in Speech and Language Processing (2008).
3. Katy Bibby  
*Evaluating Empirical Methods for Eliciting Linguistic Judgements*  
MPhil in Speech and Language Processing (2006).
4. Caroline Domenech  
*Questioning the Language of Argument*  
MPhil in Linguistics (2006).
5. Emer Gilmartin  
*An investigation of linguistic coordination in dialogue between native speakers of English and Russian speaking learners of English*  
Part-time MPhil in Speech and Language Processing (2006).
6. Geraldine Herbert  
*Mapping Irish Synsets onto Princeton WordNet Synsets*  
MPhil in Speech and Language Processing (2006).
7. Barbara Biozinska  
*Ambiguity in Legal Contexts*  
MPhil in Linguistics. 2005.
8. Daniel Krugman  
*The Greenspan Effect*  
MPhil in Linguistics. 2005.

9. Lucy Hogan  
*Using Authorship Identification Techniques to Cluster US Presidents on the Basis of Speeches*  
Part-time MPhil in Linguistics. 2005.
10. Myriam Mencke  
*Experiments to Validate Scientifically Reliable Author Identification Techniques*  
MPhil in Linguistics. 2004.
11. Sile Mc Mahon  
*Metaphoricity: Theoretical Perspectives and Empirical Analysis*  
MPhil in Linguistics. 2004.
12. Anna Nicholson  
*A Theoretical and Empirical Investigation of Epistemic Modality in English*  
MPhil in Linguistics. 2004.
13. Alfons Claver  
*Formal Representation of Information Packaging in Catalan and English*  
MPhil in Speech and Language Processing. 2003.
14. Richard Cotterell  
*A Study in Machine Translation for Calendar Expressions.*  
MPhil in Speech and Language Processing. 2002.
15. Sofie Van Gijssel  
*A Corpus Linguistic Analysis of European Right-Wing Party Manifestos*  
MPhil in Linguistics. 2002.
16. Giselle de Almeida  
*The Syntax and Semantics of the Subjunctive Mood in Brazilian Portuguese*  
MPhil in Speech and Language Processing. 2002.
17. Mary Evie Boswell-Vilt  
*A Multidisciplinary Approach to Verbal Aggression in United States Law*  
MPhil in Speech and Language Processing. 2001.
18. Brian Murphy  
*Syntactic Information Hiding in Plain Text*  
MPhil in Speech and Language Processing. 2001.
19. Nuria Alcocer,  
*Parallel Lines? User Expectations and System Capabilities in Machine Translation*  
MPhil in Speech and Language Processing. 2000.
20. James Dowdall,  
*An HPSG Account of Italian Case Marking*  
MPhil in Linguistics. 2000.
21. Lacey Maddox,  
*The Language of Fencing*  
MPhil in Linguistics. 2000.
22. Donncha O’Cronin,  
*Issues in the Syntax of Irish Gaelic relevant to Head-Driven Phrase Structure Grammar*  
MPhil in Speech and Language Processing. 1999.

23. Ann Devitt,  
*Anaphoric Reference in DRT: An Implementation*,  
MPhil in Linguistics. 1997.
24. Amanda Hackett,  
*Metaphoricity and Computational Semantics*,  
MPhil in Speech and Language Processing. 1997.
25. Tony Mullen,  
*A Compositional Approach to Aspectuality in Czech*,  
MPhil in Linguistics. 1997.
26. Gary O'Reilly,  
*Cross-Serial Dependencies in Dutch and Swiss-German*,  
MPhil in Linguistics. 1997.
27. Federico Terenzoni,  
*An investigation of the Semantic Nature of Italian Object Clitics*,  
Mphil in Linguistics. 1997.

#### **Postgraduate by Research**

1. Mark O'Neill, *Counterfactual Reasoning*  
M.Sc. in Computational Linguistics. awarded 2003 (Intel).
2. Justin Woods, *Declaratives, Interrogatives, Semantic Space and the Emergence of Communication*  
M.Sc. in Computational Linguistics. awarded 2003 (College Category II Award).
3. Michael Burke, *Data Structures and Algorithms for Optimized Spellchecking*  
M.Sc. in Computational Linguistics. awarded 2003 (Irish Linguistics Institute).
4. Begoña Villada, *The Status of Clitics in Galician and Spanish*,  
M.Sc. in Computational Linguistics. awarded 2001. (College Category II Award).
5. Christine Appel, *Computer Assisted Language Learning*  
PhD awarded 2003. (Prof. David Little, Primary Supervisor).
6. Jennifer Foster, *Paraconsistent Feature Logics for Implementation of Robust HPSG Parsing*.  
Department of Computer Science.  
PhD awarded 2005 (Broad Curriculum research scholarship).
7. Ann Devitt, *Discourse Semantics*.  
PhD awarded 2005 (Broad Curriculum research scholarship).
8. Maria Buckley, *Software Tools for Experiments on Quantification in Natural Language Administered via the Internet*.  
MSc awarded 2005 (College Category II Award).
9. Julia Medori, *Software Tools for Authorship Attribution*.  
MSc awarded 2004 (College Category II Award).
10. Cormac O'Brien, *Optimum Techniques for Automatic Spam Detection*.  
MSc awarded 2005. (IRCSET funding)
11. Yvette Graham *Internet Experimentation Tools for Research into Human Reasoning with Counterfactuals*. MSc awarded 2006 (Intel).

12. Lorraine Gilleece *An Empirical Investigation of the Association between Musical Aptitude and Foreign Language Aptitude*  
PhD awarded 2006 (Foundation Scholar; Prof. David Singleton, Primary Supervisor)
13. Michelle McGillion *Linguistic and Cognitive Constraints on Novel Metaphor and Word-sense Extension*.  
MSc awarded 2007. (College Category II Award).
14. Dave Spollen, *French Clitic Left Dislocation: an HPSG analysis*  
MSc awarded 2007. (College Category II Award).
15. Joanna O'Driscoll *Empirical Analysis of Constraints on Novel Metaphor*  
MSc awarded 2007. (College Category II Award).
16. Myriam Mencke *Benchmarking a Text Classification Technique*  
MSc awarded 2007. (College Category II Award).
17. Brian Murphy, *A Study of Notions of Participation and Discourse in Argument Structure Realisation*  
PhD awarded 2007 (Broad Curriculum research scholarship).
18. Lucinda Longmore *Parameters in the Simulation of Language Evolution*  
MSc awarded 2008. (College Category II Award).
19. Ronan Grace *Cross-linguistic Research to Examine the Principle of Linguistic Relativity: Evidence from English, Mandarin and Russian*  
MSc awarded 2008
20. Jerom Janssen *Text Classification and Language Change*  
MSc in progress. (SFI RFP 05/RF/CMS002).
21. Howard Leech *Investigating Visual vs. Verbal Primacy Effects*  
MSc 2009. (College Category II Award).
22. Gerard Lynch *Computational Stylometry and Analysis of Style: A Study of Characterization in Playwrights*  
MSc 2009. (College Category II Award).
23. Claire Jessel *Finding the Wheat Amid the Chaff*  
MSc 2009 (Foundation Scholarship)
24. Tomoko Ueno *An Investigation of the Relationship between the Development of Bilingual Semantic Organisation and Interactive Connectivity across Languages*  
PhD awarded 2009 (Prof. David Singleton, Primary Supervisor)
25. Geraldine Herbert *Computational Methods of Tracking Lexical Change in Irish*  
MSc in Progress. (IRCSET Embark Award)
26. Derek Kelleher *Identification of Events under Varying Descriptions*  
PhD starting (SCSS Award)
27. Martin Bachwerk *Models of Abstraction and Questions in Language Evolution*  
PhD starting (SCSS Award)
28. Gerard Lynch *Detection of Source Language and Translator Impact on Translated Texts*  
PhD starting (SFI CSET - CNGL stipend)
29. Liliana Mamani Sanchez *Methods for Automatic Semantic Role Labeling*  
PhD starting (SFI CSET - CNGL stipend; co-supervised with Dr. Martin Emms)
30. Gordon Leech *Text and Image Relations*  
PhD starting