The number and quality of the papers in this "Special Issue of the Lexicon" is a direct reflection of the increasing importance of the role played by the lexicon both in computational linguistics and in linguistics. There are a variety of factors underlying this intensification of interest. From a theoretical perspective, linguists have begun to realize that many subtle problems in syntax and semantics cannot be addressed without elaborating a lexical component. From a practical standpoint, the application of computational linguistics to practical problems requires larger lexicons, and their development is proving to be an expensive and time-consuming process. Ways need to be found to allow people to share lexical information in spite of differences in theoretical framework or system implementation.

Another important consideration is the increasing availability of machine-readable dictionaries and tools to facilitate their use. In the past, computational linguists tended to ignore dictionaries, believing that lexical entries needed to be designed to satisfy specific theoretical or system requirements. Now, however, people are finding that dictionaries contain a wealth of useful information. To be sure, not all of that material is appropriate, and significant modifications may need to be made to increase the utility of other parts, but the results are encouraging.

More generally, large amounts of natural language documents are becoming available in electronic form, and the increasing power of personal computers and reductions in the cost of storage are resulting in more thorough analyses of their contents. In short, computational linguistics is beginning to make progress in mapping out an "ecology of language." Identifying the lexical elements people actually use is a first step in this direction.

The following papers are contained in this issue:

In "Processing Dictionary Definitions with Phrasal Pattern Hierarchies," Hiyan Alshawi analyzes dictionary word sense definitions using a hierarchy of phrasal patterns in order to clarify the senses of words not already in the lexicon.

In "Large Lexicons for Natural Language Processing: Utilising the Grammar Coding System of LDOCE," Bran Boguraev and Ted Briscoe show how the entries in a machine-readable dictionary can be linked, through their grammatical codes, to a sophisticated computational linguistics grammar development environment in order to create large lexicons for natural language processing systems.

In "Tools and Methods for Computational Linguistics," Roy J. Byrd, Nicoletta Calzolari, Martin S. Chodorow, Judith L. Klavans, Mary S. Neff, and Omneya A. Rizk present a range of tools and methods for acquiring, manipulating, and analyzing machine-readable dictionaries; they also show how machine-readable dictionaries can be exploited in the construction of large lexicons for natural language processing systems.

In "Commonsense Metaphysics and Lexical Semantics," Jerry R. Hobbs, William Croft, Todd Davies, Douglas Edwards, and Kenneth Laws define lexical items relevant for common-sense knowledge in relation to an axiomatization of the concepts underlying the description of objects and events.

In "Disambiguating Prepositional Phrase Attachments by Using On-Line Dictionary Definitions," Karen Jensen and Jean-Louis Binot show how the attachments of prepositional phrases can be determined on the basis of the definitions in machine-readable dictionaries.

In "A Formal Lexicon in Meaning-Text Theory (Or How to Do Lexica with Words)," Igor Melcuk and Alain Polguere explicate a model of natural language in which the lexicon is viewed as the central component.

In "The Subworld Concept Lexicon and the Lexicon Management System," Sergei Nirenburg and Victor Raskin describe how to acquire a 'concept lexicon' that would underlie the analysis and generation lexicons required for an interlingua model of machine translation.

In "A Computational Framework for Lexical Description," Graeme D. Ritchie, Stephen G. Pulman, Alan W. Black, and Graham J. Russell formulate rules for stating linguistic generalizations about the lexicon so they have a clear computational interpretation.

In "The Self-Extending Phrasal Lexicon," Uri Zernik and Michael G. Dyer establish a hierarchically organized phrasal lexicon that can be used to acquire new lexical entries from examples in a text through a process of hypothesis formation and error correction.

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Guest Editors