

# A Distributed Database System for Developing Ontological and Lexical Resources in Harmony

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**Abstract.** In this article, we present the basic ideas of creating a new information-rich lexical database of Dutch, called Cornetto, that is interconnected with corresponding English synsets and a formal ontology. The Cornetto database is based on two existing electronic dictionaries - the Referentie Bestand Nederlands (RBN) and the Dutch wordnet (DWN). The former holds FrameNet-like information for Dutch and the latter is structured as the English wordnet. In Cornetto, three different collections are maintained for lexical units, synsets and ontology terms. The database interlinks the three collections and aims at clarifying the relations between them. The organization and work processes of the project are briefly introduced.

We also describe the design and implementation of new tools prepared for the lexicographic work on the Cornetto project. The tools are based on the DEB development platform and behave as special dictionary clients for the well-known DEBVisDic wordnet editor and browser.

## 1 Introduction

Lexical data and knowledge resources has rapidly developed in recent years both in complexity and size. The maintenance and development of such resources require powerful database systems with specific demands. In this paper, we present an extension of the DEBVisDic environment [1] for the development of a lexical semantic database system for Dutch that is built in the Cornetto project. The system holds 3 different types of databases that are traditionally studied from different paradigms: lexical units from a lexicological tradition, synsets within the wordnet framework and an ontology from a formal point of view. Each of these databases represents a different view on meaning. The database system is specifically designed to create relations between these databases and to allow to