

Interactive System for Learning Word Inflections in Slavic Languages. Case study - Slovenian Nouns and Verbs

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Abstract

Slavic languages are known for their inflection richness. In these languages the declension endings of nouns express gender (3), number(2-3), case (6-7), and animacy. The conjugation endings of verbs express person (3), number (2-3), tense (2-4), aspect, mood, and voice. The adjectives are declined for number, gender, and case according to the noun to which they belong. It is understandable that for a non-native speaker it is quite difficult to memorize and to use properly all possible variations that can appear in written or spoken sentences. In order to ease the learning and teaching of Slavic languages an interactive computer system for self-teaching and grammatical checking of declension and conjugation of nouns, verbs, and adjectives was designed.

In the particular case study we describe the system for learning Slovenian inflections. Our system handles 54, 39, and 30 lists of inflected forms for masculine, feminine, and neuter nouns, respectively. Each of the 123 noun-lists contains 18 suffices (cases and numbers). In the case of verbs the system handles 93 verb-lists of inflected forms each of them having 21 suffices covering all possible verb endings responsible for person, tense, aspect, mood, and voice. Additionally, there are 29 lists each containing 12 suffices for proper declension of adjectives. The described system of more than 4,500 suffices enables the user to obtain correct inflection of any word from the Slovenian dictionary for more than 100,000 words. The system can be used in two ways: a) for finding all possible inflected forms of any noun, verb, or adjective; and b) to generate the proper lexeme from any given grammatically correct morphem that can appear in any text or spoken communication.

The aim of the lecture is to demonstrate the present status of the system using the Slovenian inflection as a case study, to discuss possible improvements and solutions for such system, as well as to seek possible cooperation with other groups working in similar projects.