

An Intelligent Natural Language Search and Replace Tool for MS Word: mFind

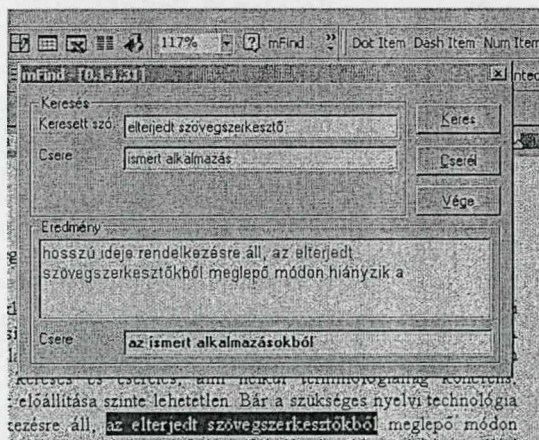
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It has become a basic requirement for word processors to provide natural language functionality. One of the most frequently used functions in everyday work is search and replace, without which it is nearly impossible to create terminologically coherent, well-formed texts. Although the necessary natural language technology has been available for a long time, today's widely used word processors still lack a search and replace feature that is capable of recognizing and generating inflected word forms.

This application creates a new button in MS Word's toolbar. By clicking on the button, a dialog comes up that allows the user to search for nouns or noun phrases, and replace the found occurrences with the correctly inflected form while correcting the use of the definite article. E.g., the traditional feature to replace all instances of "lángoló csipebokor" with "égő cserje" will fail in the case of "a lángoló csipebokraitokkal." mFind, however, will identify this occurrence and suggest the correct replacement text, "az égő cserjéitekkel."



At present, mFind can be used to search for Hungarian nouns or noun phrases. The language-dependent resources in the code are clearly separated, making it possible to adapt the tool to other morphologically rich languages with relatively little effort.

Our plans for the near future include developing mFind versions for various other languages besides Hungarian. In some cases, such as many Germanic and Slavic languages,

however, this also involves some degree of syntactic parsing because of the case, gender and number agreement on the determiner, the adjectives and the NP's head. The necessary local grammars can be developed using our syntax parsing tools.