

Composing, revising, and editing are highly demanding tasks. Even in polished and published texts from professional writers we can observe errors and mistakes. For many errors, we can infer how they came to be: Word processors offer character-based functions only. These functions do not take into account elements and structures of the language the author is using. Authors are thus forced to translate their high-level goals into long and complex sequences of low-level character-based functions. Both the translation process and the execution of such sequences of functions are error-prone.

However, in text editors for programmers we find so-called language-aware editing functions. These functions operate on the elements and structures of a programming or mark-up language and help to avoid errors, as language-aware functions make revising and editing less tedious and error-prone.

We argue that the concept of language awareness can be transferred to writing natural language texts using word processors. We propose functions that take the structures of natural languages into consideration. We distinguish information functions, movement functions, and operations to support revising and editing. The design is based on current findings from writing research.

Language-aware editing functions rely on the recognition and categorization of relevant elements and structures with respect to a certain language. We use methods and resources from computational linguistics for morphological analysis and generation, and for part-of-speech tagging. When evaluating respective resources we face a rather disappointing situation: NLP resources for German are less suitable than assumed and less applicable for real-world applications than usually claimed in the literature.

Our prototypical implementation of language-aware functions for revising and editing of German texts serves as a proof of concept. The implementation illustrates opportunities and limits of current NLP resources for German.