

The conceptualization of music in semantic frames based on word sketches

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It has been standard practice in terminology management to define the categories of specialized knowledge as complex conceptual networks in which concepts are connected by ontological relations. With the emergence of Frame-based Terminology (Faber, 2012) that applies Frame Semantics (Fillmore, 1985; Fillmore and Atkins, 1992), it has become evident that specialized knowledge categories can be more adequately defined by using semantic frames as conceptual structures that allow for a precise description of frame elements and their corresponding lexical units.

Apart from few suggestions of automatic utilization of semantic relations (Materna, 2014; McCarthy et al., 2015; León-Araúz, San Martín, and Faber, 2016), the construction of semantic frames still relies heavily on semiautomatic corpus based methods and manually analysed data. A dynamic terminological description of a specialized domain that takes into account conceptual metaphors, variation and polysemy as integral components of specialized knowledge needs to be based on a rigorous linguistic analysis, but can benefit greatly from an automatic linguistic description such is offered by the word sketches (Kilgariff et al., 2014).

The paper gives an analysis of several semantic frames in the domain of music (e.g. PITCH, TONALITY, TEMPO) that are constructed based on the word sketches extracted from an English corpus of scientific papers and books in music theory. The analysis is carried out in order to test the reliability of the linguistic information in word sketches as opposed to the information extracted by a common terminological practice of analysing concordances and knowledge-rich contexts. Special attention is given to figurative terminological units and metaphorical mappings in the frame elements.

Semantic frames are first constructed based on the extracted word sketches of most frequent terms. Frame elements are defined following the FrameNet methodology, which has been adapted, where necessary, to better reflect the nature of specialized knowledge categories (Faber, León-Araúz, and Prieto Velasco, 2009; Ostroški Anić, 2015). To evaluate the relevance of linguistic information in the frames, key terms used for the extraction of word sketches are analysed in corpus concordances, and additional relevant information is marked accordingly.

The research is conducted within the project *Problems of basic contemporary musical terminology in Croatia* (CONMUSTERM), and follows on a model of analysis of figurative specialized language based on application of a semiautomatic method of metaphor detection, and the use of semantic frames for a description of metaphorical mappings between the categories of general and specialized knowledge.

References

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