Definitional Templating: A Novel Approach to Modeling the Compositional Semantics of Noun Compounds

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Abstract

Interpreting the meaning of noun compounds (e.g., party member or bus stop) is an ongoing challenge in natural language processing (NLP). Much of this difficulty arises from the fact that the relationship between nouns in a compound is largely implicit, so interpreting this relationship often requires extrapolation beyond the meanings of the nouns themselves. I have explored a novel approach to representing noun compound relations, denitional templating, which explicates their meanings in comprehensible terms for NLP systems. This approach is shown to improve performance in interpreting the relationship between constituents of a noun compound across multiple experimental contexts, relative to analogous approaches which represent only the nouns themselves.