Beginning with lexical graphs:

**Information from: Recognition of synonyms by lexical graphs**

* Describe that the vertices(Or edges) of the graph are lexical items(words),
  + Their connection follows the syntactic structure of a sentence.
* A pattern-based method is proposed by Hearst (Hearst, 1998)
  + Identified patterns are applied to a large text corpus to detect new relations. The method can be enhanced by applying filtering steps and iterating over new found instances (Phillips and Riloff, 2002).
* Blondell et al. (Blondel et al., 2004) encode a monolingual dictionary as a graph and iden-tify synonyms by finding sub graphs that are similar to the sub graph corresponding to the queried term.
* Different bias towards words with high or low frequency is recognized as one reason for the significant variance of k-nearest neighbors sets of different similarity metrics.
* We build an implicit context representation connecting lexical items in a way corresponding to the sentence structure (as opposed to (Blondel et al., 2004)), where a term is linked to every word in its definition)
* However, some adjacent words are not semantically related to each other, therefore the lexical graph features two types of edges (see an example in fig. 2) {German-specific}
  + A property edge links the head word of a syntactic chunk (verb or noun phrase) with its modifiers (adverbs or adjectives respectively) that characterize the head word and is bidirectional.
  + A sequential edge connects the head words (e.g. main verbs, head nouns) of syntactic chunks reflecting the “semantic backbone” of the sentence.
* The length of an edge represents how strong two lexical items are related to each other and depends therefore on the frequency of their co-occurrence.
* hence the length of an edge is inversely proportional to the frequency of co-occurrence of its endpoints.

End game for such things

* New note