## Promise Feature

The technology promise feature is derived in a similar way as the maturity feature and is based on the result of a pattern matcher using a specialized set of simple patterns using the features extracted for each term. Patterns indicate whether a technology was considered promising, usually by checking for a small set of lexical items in the immediate context.

The promise feature has not yet proven promising. We gathered all features from all feature vectors of a 295K patent corpus with patents from the computer science domain and found no reasonably high-frequency features that would indicate that a technology was considered promising. The situation is marginally better for Web of Science abstracts where we were able to generate 19 patterns that seemed to indicate promise. Some examples are listed here:

next\_n3=is\_very\_promising

next\_n3=show\_promising\_results

Unfortunately, these 19 patterns yielded only 10,000 hits over 500K Web of Science abstracts, which is too low to be useful especially given that all terms for which we had five or more matches were generic terms like “method”, “approach” and “experimental results”. It should be noted however that we expect that the number of hits needed to be significant is lower than for the maturity patterns.

The promise feature has so far not been productive for two reasons. One is that the number of matches is too low to provide useful data. For the 600K patent corpus we only got a few hundred matches (as opposed to 20M for maturity patterns) and for 500K abstracts from the Web of Science we got just over 10,000. The other reason is that more so than with maturity patterns, more sophisticated patterns seem to be needed to get usable data.