

## Using Textual Pre-Processing and Text Mining to Create Semantic Links

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**Abstract :** This article offers a approach to the automatic discovery of semantic concepts and links in the domain of Oil Exploration and Production (E&P). Machine learning methods combined with textual pre-processing techniques were used to detect local patterns in texts and, thus, generate new concepts and new semantic links. Even using more specific vocabularies within the oil domain, our approach has achieved satisfactory results, suggesting that the proposal can be applied in other domains and languages, requiring only minor adjustments.

**Keywords :** semantic links, data mining, linked data, SKOS

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