Thesis Title	Analysis System for Thai Sentences with Eliminated Redundant Subject
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ABSTRACT

Natural language processing is a part of artificial intelligence which is one of interesting researches. It enables to work toward a model of machine translation or language understanding by a computer. The research to explain language is ancient, however a complete understanding of language seems a long way off. To construct a machine translation model, today, the corporation between natural language processing and linguistic is needed. Principles and grammatical of language are used in natural language processing at any levels such as morphology, syntax, semantics and pragmatics, including syntactic and semantic analysis.

There are many problems in syntactic and semantic analysis of Thai sentences. These are :

- Thai language compose of sentences which are no delimiter between words and sentences.
- There is a modification in order to concise the sentence by eliminate the redundant of the same words in the sentence.

These problems cause the difficulties in cutting Thai paragraph down to simple sentences and words. These also cause the complexity in syntactic analysis of Thai sentence. To analyze the complete syntactic, it would be :

- First, correcting the spliting of each sentence from a paragraph,
- Second, correcting the spliting of each word from a sentence,
- Finally, reconstruct simple sentence.

In this thesis, the characteristic of Thai language is considered as a paragraph is consisted of two or more sentences where is connected by a conjunction and modified to be concise by eliminating the same subject. This thesis introduces an algorithm to split sentences from a paragraph and to analyze Thai sentences. Then, the expert system will be established in the following steps:

- First, the knowledge base is developed from syntactic by linguistic,
- Second, the 'case marking' method will be used to categorize the word fitting to the sentence in which it appears,
- Finally, the order and assemble of words are added into knowledge base.

This knowledge base can be used to split Thai paragraph into complex sentences and then correctly transform a complex sentence to be simple sentences. This thesis will be the first step to Thai machine translation.