ParSit: Online English-Thai Machine Translation Service

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The growth of Internet connections is playing an important role in facilitating human-human, human-computer and computer-computer communication throughout the world. It seems that information as a product of human intelligence can be created and exchanged without limitation on the infrastructure called Internet. This is completely correct if we all speak in the same language. The language barrier problem becomes significant when we do not understand the language that is widely used.

Thailand being one of the non-English-speaking countries, to help the Thai people in assimilating the huge amount of information scattering over the Internet, National Electronics and Computer Technology Center (NECTEC) has spent great efforts to develop an English-Thai machine translation system. The first trial of an automatic English-to-Thai machine translation service, called ParSit, has been put onto the web. ParSit enables the Thai people to surf English web-pages as they are browsing the web-pages in the Thai language. Through the ParSit service, the requested English web-pages are automatically translated into Thai by keeping the web-page original layout. The current ParSit trial service can be accessed via one of the following URL's http://go.to/parsit, http://i.am/parsit and http://www.links.nectec.or.th/services/parsit. ParSit has been developed under the collaboration between NECTEC, Thailand and NEC Corporation, Japan. ParSit is coined to rhyme with ParSit (pha:-sit) is a Thai word that means a traditional saying; expressing common experience or observation from generation to generation. The automatic machine translation system which will support the Thai people in disseminating original information to the world.

Thanks to the research experience in the Multilingual Machine Translation project, NECTEC has succeeded in implementing the first English-to-Thai machine translation service on the web, called ParSit. Through the intensive collaboration with NEC Corporation, NECTEC developed the English-to-Thai machine translation on the NEC's machine translation engine. On 24 June 2000, ParSit was launched to provide automatic translation for both web-pages and short messages. The service has been well accepted since then and now we are planning to develop a Thai-to-English translation system which will support the Thai people in disseminating original information to the world.

What is “ParSit”? ParSit (pha:-sit) is a Thai word that means a traditional saying; expressing common experience or observation from generation to generation. The automatic machine translation is one of the ultimate goals of humankind. We have been told from generation to generation that one day we could overcome the language barrier since the era of Babylon. On the other hand, ParSit is coined to rhyme with “parse it” which means to analyze (a sentence) in terms of grammatical constituents, syntactic relations, etc. Consequently the English-to-Thai machine translation system is named ParSit.

ParSit Inside-Out The technology for developing ParSit is based on an English-to-Japanese machine translation system developed by NEC Corporation, Japan. ParSit does not translate word by word, but sentence by sentence. ParSit employs the word syntac-
Web-page translation is a service that converts an English web-page into Thai web-page by keeping its original layout. To use this service, a user simply goes to the ParSit top page (http://www.links.nectec.or.th/services/parsit), clicks the 'Enter' button and then clicks the 'WEB translation' button. The user inputs the URL of the desired English web-page in the provided text box then clicks the 'send URL' button and waits. In a few seconds the user will get the web-page with all messages written in Thai except for the images.

Text translation is a service that converts a short English message into Thai. Instead of clicking the 'WEB translation' button, click the 'TEXT translation' button to get to service. There is a text box in the middle of the page. This text box accepts up to 2,000 characters for each time of the translation request. The text length is limited to avoid a long wait for the response. Click 'Translate' button to execute the translation and then wait for the response. The user will shortly get the translated Thai text.

Some Statistical Views of the ParSit Use

There have been more than 380,000 visitors since the first date of the service in July 2000 until January 2001. The average number of about 2,000 visitors or about 7,000 translation pages per day is good evidence that ParSit has made a significant contribution to Thai society. According to the feedback from the user comments, though the translation quality produced by ParSit is not as good as that of human translation, it is widely accepted as an essential tool for browsing the web-pages written in English. ParSit facilitates a quick information look-up for those who are not familiar with English.

Bridging the Information Gap

Presently, it is reported that more than 65% of web-pages are written in English. Some of the web-pages prepared in Thailand are also written in English without Thai translation. Though the Internet population in Thailand is increasing, the barrier in information access is still high. It is not so fluent at reading messages written in foreign languages. The time consumed in information access could possibly reduce productivity in this information age. It becomes more significant when the speed of Internet connection is getting faster and faster. To bridge the information gap, the machine translation system, like ParSit, is an inevitable tool to help users in making a sketch of the contents. Though the translation result is hardly perfect, owing to the unsolvable problems with the current language processing technology, ParSit can somehow facilitate users in surfing the web with little skill in reading the English text. According to some users’ opinion, rewriting the output from ParSit translation into a fine Thai text consumes less time than translating from the original text. It has shown an extensional use of ParSit in preparing Thai documents from the original English text under the Internet environment. ParSit has proven the possibility to be one of the efforts in bridging the information gap between Thailand and the world. The service quality keeps improving in the speed of response time and the legibility of the translation results as well. In parallel, we are preparing for another challenge in developing a Thai-to-English translation system which will help us to publish and send Thai information out to the world. It is our supreme goal to take a part in bridging the information gap for the countries in this region and assisting the creation of the knowledge-based society in the coming era.

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