

## Guided Input Method for Collaborative Machine Translation Systems

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The quality of machine translation depends on the input sentence. Collaborative machine translation systems do not only translate the input sentence into a target language but also back-translate the translation into the input language in a reverse way, and the user repair the input sentence to improve the quality of translation referring to the back translation. However, it is not easy for novice users to repair the input sentence appropriately to be translated correctly. We propose a guided input method that assists the users to compose input sentences by presenting word candidates that may lead to a correct translation. The word candidates are generated from the sentence structure and word database that is created by storing sentences that have been translated correctly.

We evaluate the performance of the guided input method depending on the number of input sentences stored in the database. As the number of input sentences increases in the database, the performance of the method improves because the number of correct translations increases and the number of repairs decreases in an experiment of Japanese-Chinese translation. On the other hand, in an experiment of Japanese-English translation, the performance of the method is not so remarkable. The guided input method works better when the users are not familiar with the target language.

**Key Words** collaborative machine translation, back translation, guided input method