Evaluating Machine Translations from Arabic into English and Vice Versa

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***Abstract*—Machine translation (MT) allows direct communication between two persons without the need for the third party or via dictionary in your pocket, which could bring significant and per formative improvement. Since most traditional translational way is a word-sensitive, it is very important to consider the word order in addition to word selection in the evaluation of any machine translation. To evaluate the MT performance, it is necessary to dynamically observe the translation in the machine translator tool according to word order, and word selection and furthermore the sentence length. However, applying a good evaluation with respect to all previous points is a very challenging issue. In this paper, we first summarize various approaches to evaluate machine translation. We propose a practical solution by selecting an appropriate powerful tool called iBLEU to evaluate the accuracy degree of famous MT tools (i.e. Google, Bing, Systranet and Babylon). Based on the solution structure, we further discuss the performance order for these tools in both directions Arabic to English and English to Arabic. After extensive testing, we can decide that any direction gives more accurate results in translation based on the selected machine translations MTs. Finally, we proved the choosing of Google as best system performance and Systranet as the worst one.**

***Index Terms*: Machine Translation, MTs, Evaluation for Machine Translation, Google, Bing, Systranet and Babylon, Machine Translation tools, BLEU, iBLEU.**

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