





# Lost in translation – Enhancing the explainability of online translators

### BACKGROUND

Imagine the scenario that you need to translate a document in a foreign language that you are not familiar with. You will probably look for an online translator such as Google Translator or DeepL and just copy the translator's output. But how can you trust this translation? How can you be sure that the translation is precisely what you are trying to say? Prominent examples are sayings that might have no meaning if translated word by word. But since you are not familiar with the language, you cannot verify if the online translator grasped the hidden meaning behind the saying.

Current online translators lack this explainability. They provide multiple alternatives for the translated phrase, but there is no explanation about why these alternatives were shown and how well they suit the inputted text

## RESEARCH QUESTION

This thesis' first step will be to understand the users' needs when challenging them with the scenario mentioned above. Then, different concepts should be designed that enhance the translator's explainability and increase its transparency during the translation process. These concepts should be implemented in a prototype (e.g., wizard-of-oz) and compared with each other in a user study.

Based on bachelor/master level, the scope will be adapted.

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# FOCUS IN THIS PROJECT

NLP Explainable Al Conceptualization

### RESEARCH INTEREST

HCI in future mobility Explainable AI Calm Technology