Of interest to:

Conversational eCommerce,
Voice-UI, Localisation Managers.

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Chatbots and Machine Translation

Using domain and conversational context in Machine Translation

Background

Machine Translation (MT) systems typically translate sentences independently of each other, however certain textual elements cannot be correctly translated without a wider conversational context, which may appear outside the current sentence.

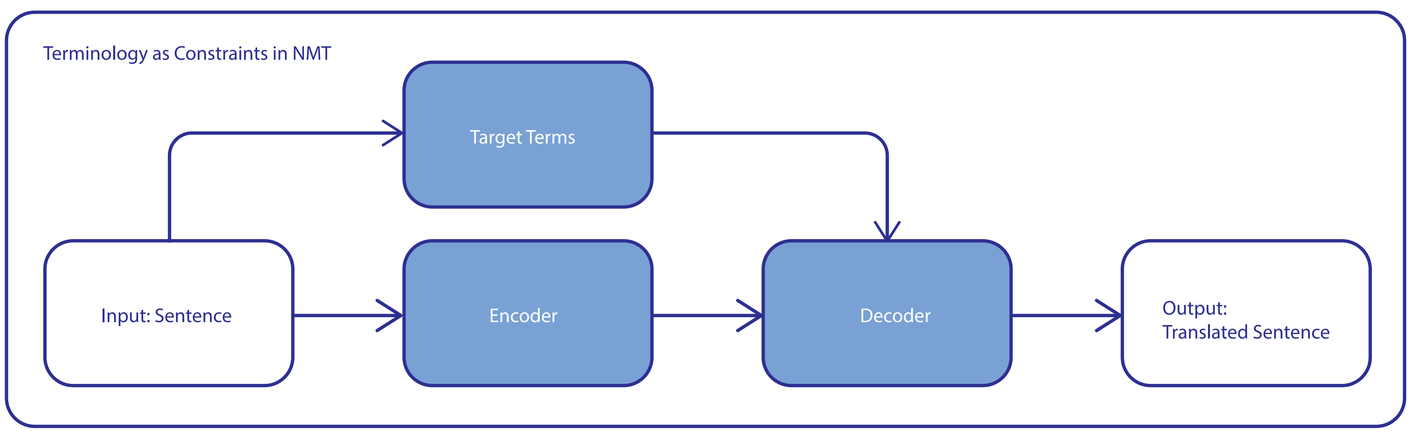
Challenge

Create a MT system that can take context from previous sentences into consideration in the translation.

Solution

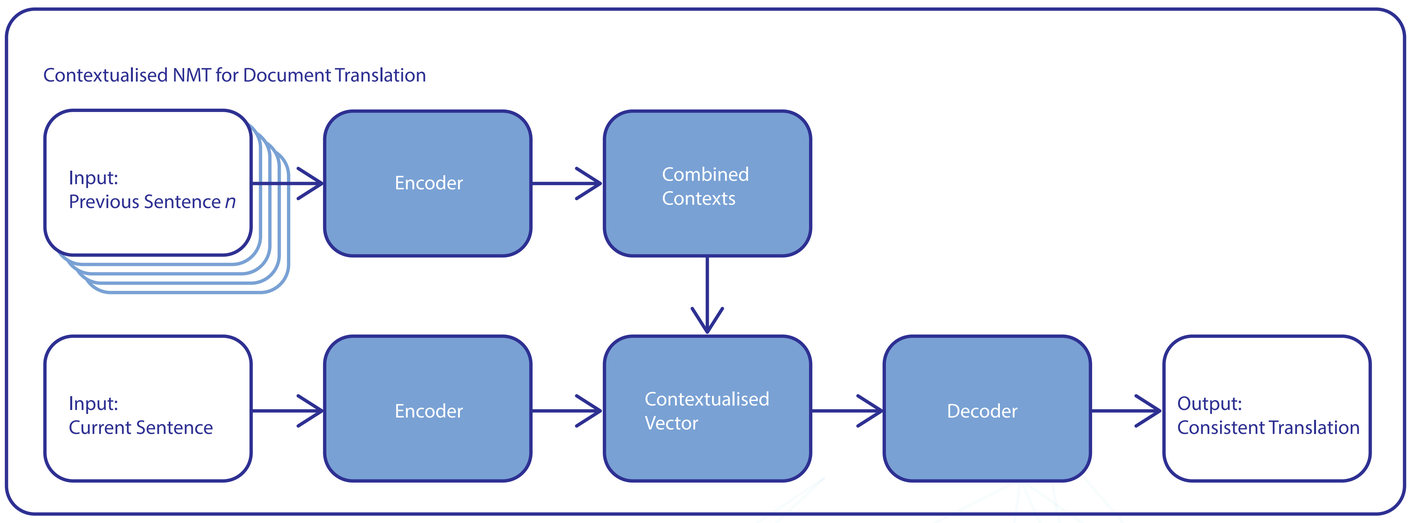
ADAPT developed a neural translation system that was attentive to the wider conversational context for a seamless multi-language experience.

Inputs: Current sentence along with previous source sentences from the dialogue.



ADAPT Technology: Our novel combination of contextual strategies greatly outperform existing models. This strategy uses the previous sentence as an auxillary input and decodes both the current and previous sentence.

Outputs: A new translation technology model that can use previous source sentences as context when translating the current sentence.



Results and Benefits

When compared to the baseline, our system:

- Improves translation quality by 20%
- Improves translation speed by 15%

Use Cases

- Chatbots - international customer support
- Conversational translation
- Voice-UI

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