

Three Directions for the Design of Human-Centered Machine Translation

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User strategies for evaluating translations

Survey findings

Rely on (target) language proficiency

Consult external resources (e.g. search)

Adjust strategies based on context

→ **Key takeaway:** *Users need more support to effectively use machine translation.*

Help users craft good inputs

1

- How can we automatically identify when a text is a poor candidate for translation and suggest improvements?
- How can we teach users about the strengths and limitations of MT systems?

Help users understand translations

2

- How can quality information be better aligned with users' needs?
- How can we design systems that help people make use of imperfect translation?

Expand interactivity and adaptivity

3

- How can machine translation models provide greater control to users over different aspects of a translation, such as tone? What aspects of a translation would users want control over?
- What roles or personas would users want a translation agent to play, e.g. interpreter, educator, confidence checker?

TranslatorBot

A proof of concept prototype

User One
ولی می تواند باعث حالت تهوع شود، مشکلی نداری؟
'But it can cause nausea, is that okay?'
1 reply

Translator Bot APP
User One: 但这会引起恶心，您有问题吗？
'But it could cause nausea, do you have a problem with that?'
1 reply

User Two
你知道我在哪里可以查到药物报销吗？
'Do you know where I can find drug reimbursement?'
1 reply

Translator Bot APP
Some words are difficult to translate. Here are some alternatives to try:
'报销': (退款)
'Reimbursement: Pay back'

TranslatorBot plays the role of interpreter and suggests simplifications

User One
آیا شما صرفه می کنید؟
'Are you saving?'
Only visible to you

Translator Bot APP
@User One, did you mean: آیا شما سرفه می کنید؟
'Do you cough?'

TranslatorBot detects typos and suggests auto-corrections