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Do use Google Translate!

Machine translation as a tool for language learning

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Introduction

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- Wide availability of Google Translate and Machine Translation
- MT excessively relied upon, used to complete assignments, plagiarism
- Integrate and exploit rather than prohibit (cf. electronic calculator)
- Evolution of MT:
  from Statistical Machine Translation to Neural Machine Translation

Machine Translation and Arabic

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MT to / from Arabic usually not accurate/reliable, two reasons:

1) diglossia (MSA vs ”dialects”): written codified language vs spoken varieties

2) morphology & root system: system of patterns, affixes, short vowels

- مُسْتَمِعٌ mustami’ listener (active participle)
- مُسْتَمَعٌ mustama’ listened to (passive participle)
- اِسْتَمَعَ istama’a to listen = prefix +R1 + infix + R2 + R3

GT as language learning tool

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- Empirical study, Arabic for beginners course
- Theoretical model: three-levels model of activity (Engeström & Miettinen, 2012):
  top = ”driven by an object-related motive” (the reason for doing smthg)
  middle = ”driven by a goal” (what is being achieved)
  lowest = ”driven by the conditions and tools of action at hand” (means employed to carry out the activity)
- In a language learning environment the levels are concurrent, i.e. converging aspects in any kind of course assignment
- Top and middle levels are inherently implied in the curricula (i.e. learning objectives + pedagogical implications of the assignments completion); lowest level focuses on the employment of a specific tool

GT as language learning tool: two assignments

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Google Translate 1 (GT1):

- midterm assignment, right before the take home exam (i.e. 6 weeks study)
- translation of 12 English sentences into Arabic; comparison of GT's results with own translations
- sentences tested a priori and formulated so that they result in
  - incorrect translations /
  - unknown vocabulary /
  - dialectal formulations /
  - advanced unknown grammatical constructions
- instructions explaining GT's unreliability for Arabic (middle level)

GT as language learning tool: two assignments (cont'd)

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Google Translate 2 (GT2):

- Close to the end of the term
- Choose a newspaper article and use GT to translate it into English/Swedish, then:
  - Account for course of action, discuss correctness/intelligibility of translation
  - Sum up the article in English/Swedish (max 30 words)
  - Identify 3 keywords and analyse morphology
- Instructions explaining GT's usefulness and showing GT's potentiality (top level)

Results

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- Only 28 GT1 and 20 GT2 available for the analysis (no expressed consent)
- **GT1**: 86% of the students identified 83% of the discrepancies/differences
- Students
  - questioned GT functions to correctly translate gender agreement, demonstrative pronouns
  - reported how GT's translations changed when adjusting the English text
  - reflected on the reasons for the discrepancies (dialectal variation, vocabulary, higher register)
  - commented on GT limitations and advantages

Results (cont'd)

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- **GT2**: 14 translated the article into Swedish, 6 into English
- Students
  - Were surprised by the accuracy of GT translation
  - reported difficulties with the translating procedure
  - reported issues with word choice, proper names, spelling
  - reflected on GT's automatic transcription and audio rendering of the Arabic text
  - correctly summarized the article showing comprehension
  - identified three relevant keywords and analysed them (& reflected on the difficulty of "going-back-to-the roots")

Conclusion

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- No claims as for generalisation:
  - too small amount of data available,
  - GT translations will eventually change (improve?)
- Validity and reliability possibly affected by factors beyond teacher's control
- Increased students' awareness of GT limitations in terms of language correctness
- Students encouraged to work with authentic texts despite their limited knowledge of Arabic and to get acquainted with Arabic sources
- Enhanced language learning process

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Thank you for your attention!

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