

Pre-Trained Language-Meaning Models for Multilingual Parsing and Generation

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Goal

Leverage the principle of pre-trained models and explore the benefit of multilingual semantic parsing and generation of including *in the same model* meaning representations aside from natural language.

TASK

EN/IT:

person.n.01 EQU speaker
order.v.02 Agent -1 Time +1 Theme +3
time.n.08 TPR now
quantity.n.01 EQU 2
hamburger.n.01 Quantity -1

+

DE/NL

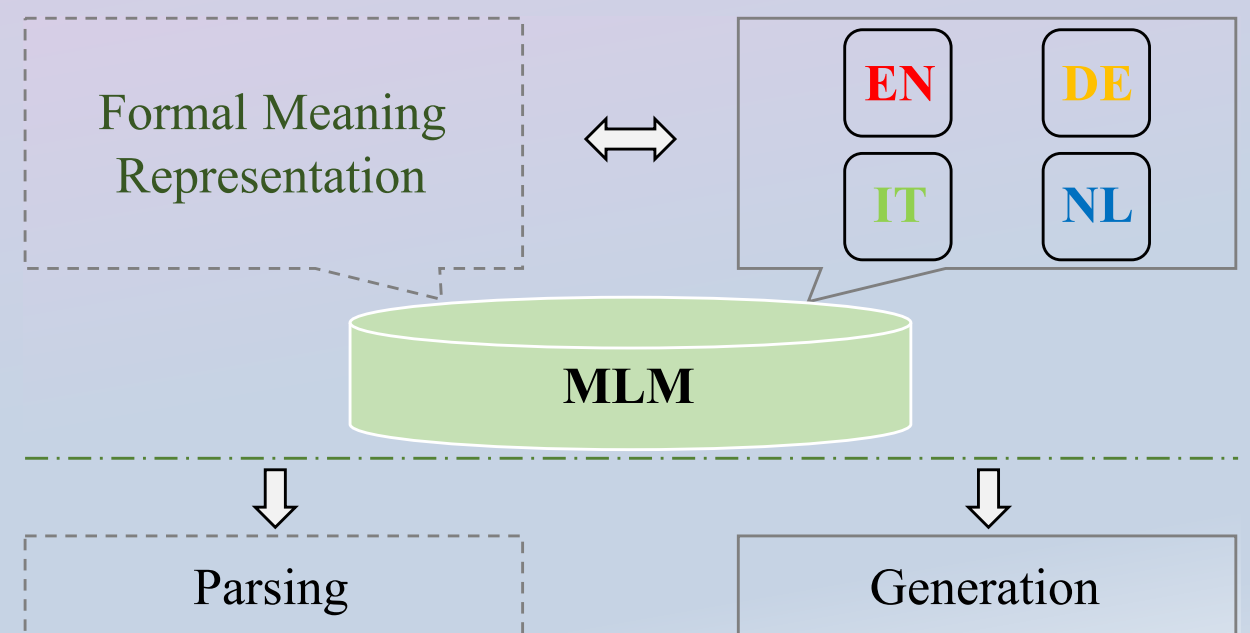
person.n.01 EQU speaker
quantity.n.01 EQU 2
hamburger.n.01 Quantity -1
order.v.02 Agent -3 Theme -1 Time +1
time.n.08 TPR now

DRS-to-Text

Text-to-DRS

- **EN:** I ordered two hamburgers.
- **IT:** Ho ordinato due hamburger.
- **DE:** Ich habe zwei Hamburger bestellt.
- **NL:** Ik heb twee hamburgers besteld.

METHOD



DATA COLLECTION

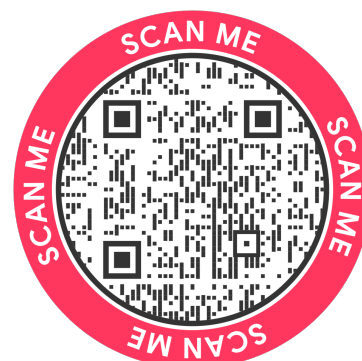


RESULTS

Using meaning representations as an additional language aside four different natural languages yields a novel multilingual pre-trained language-meaning model. By doing so, we achieve *state-of-the-art* performance on both tasks.



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