An Inter-lingual Approach to Dialogue Understanding

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Intent Classification

What do you want to do?

- OPEN ACCOUNT
- CHECK BALANCE
- TRANSFER FUNDS
Intent Classification

- OPEN ACCOUNT
- CHECK BALANCE
- TRANSFER FUNDS
Intent Classification

OPEN ACCOUNT
I want to open an account
How do I start an account?
How to open checking
New account

CHECK BALANCE
Help checking balance
How much money do I have
Check my account
What is my balance
Current balance

TRANSFER FUNDS
Transfer $40 to checking
Move 300 from savings to checking
Diversity in Language Usage

- Age
- Region
- Socioeconomic group
- Language background
- Channel
Diversity in Language Usage
Capturing Concepts Rather than Words

cut a rug
taniec
trip the light fantastic
pirouette
dance
dances
danced
dancing
boogie
caper
jig
waltz
jitterbug
tanzen
danser
danza

舞蹈
taniec
trip the light fantastic
pirouette
dance
dances
danced
dancing
boogie
caper
jig
waltz
jitterbug
tanzen
danser
danza
Abstractions for Intent Categories

Where is your office?
Where do I go for your office?
office location
location of office
directions to your office
Looking for your office
How do I get to your office?
I can’t find your office
Your website is broken

Select words: Select words that make the intent more specific. Avoid selecting words you have already covered by selecting an

Your website is broken

Intent Categories

Problem Statement

Intent Descriptions

Problem Statement: A statement that something is not functioning, or a task cannot be completed.
  - Your website is broken.
  - The printer doesn’t work.
  - I can’t get my account balance.
One Effort, Multiple Variations, Multiple Languages

Your website is broken.

Your website is busted.
Your website is pathetically broken.
Your site is busted.
I can’t get on your website.
Your site doesn’t work.

Votre site web ne marche pas.
Tu sitio web está roto.
Ihre Webseite funktioniert nicht.
One Effort, Multiple Languages

Initial bot creation requires little technical knowledge. Tuning the bot’s performance is an intensive task. Since the NLU is already multilingual, adding languages involves a restart from scratch, requiring more effort, additional testing and tuning.
I want to open a checking account

How I set PIN?
Conclusions

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