

A personal dialog assistant-based approach to assist non-sighted people in web search

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December 17, 2020

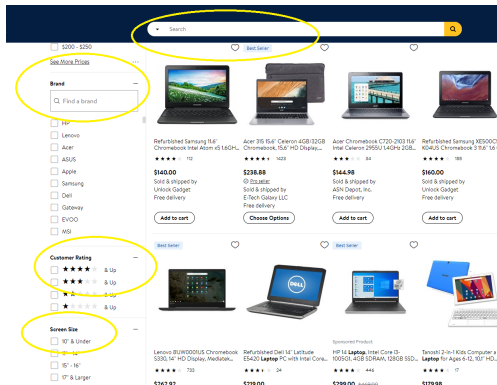


Overview

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- 3 Architecture
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 - Query Recognition
 - Semantic Ranking
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Motivation



Search result from Walmart

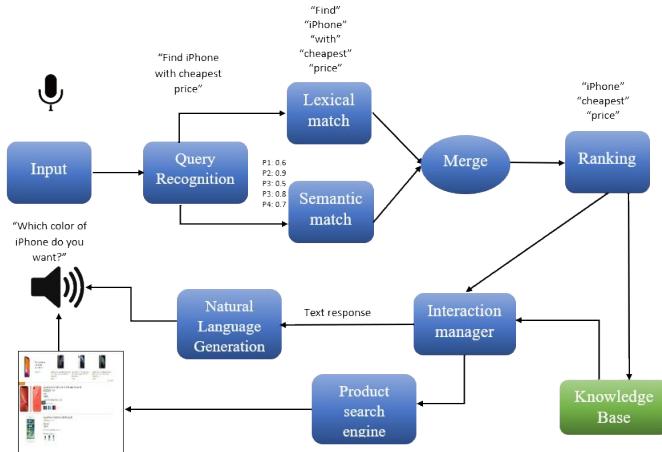


PDA System for Non-sighted people



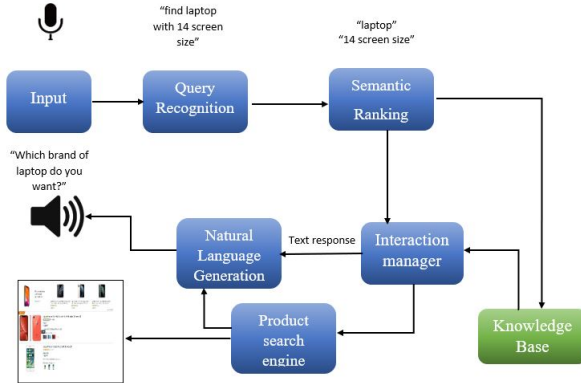
General Idea

Architecture



Architecture of PDA system for non-sighted people

Architecture



Architecture of PDA system for non-sighted people

Completed Module

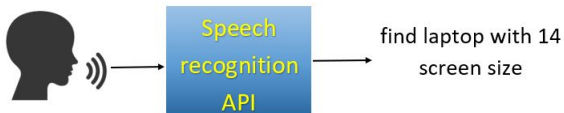
- ✓ Dataset (200 webpages).
- ✓ Query Recognition.
- ✓ Semantic Ranking.



Query Recognition

Language: Python

Library: SpeechRecognition 3.8.1, PyAudio 0.2.11



Semantic Ranking

Language: Python

Library: pytextrank¹, spacy

Pretrained Model: en_core_web_sm

¹Mihalcea, and Tarau, **Textrank: Bringing order into text.**



Semantic Ranking

```
PS C:\Users\jafra\OneDrive\File & Document\Documents\GitHub\SpeechAssistant> py speech2text.py  
find laptop with 14 screensize  
0.72 laptop  
0.28 14 screensize
```



Things to do

- ▶ Product Search engine (on going).
- ▶ Knowledge Base (on going).
- ▶ Interaction manager.
- ▶ Natural Language generation.



Thank You!

