

Semantic understanding of natural conversation

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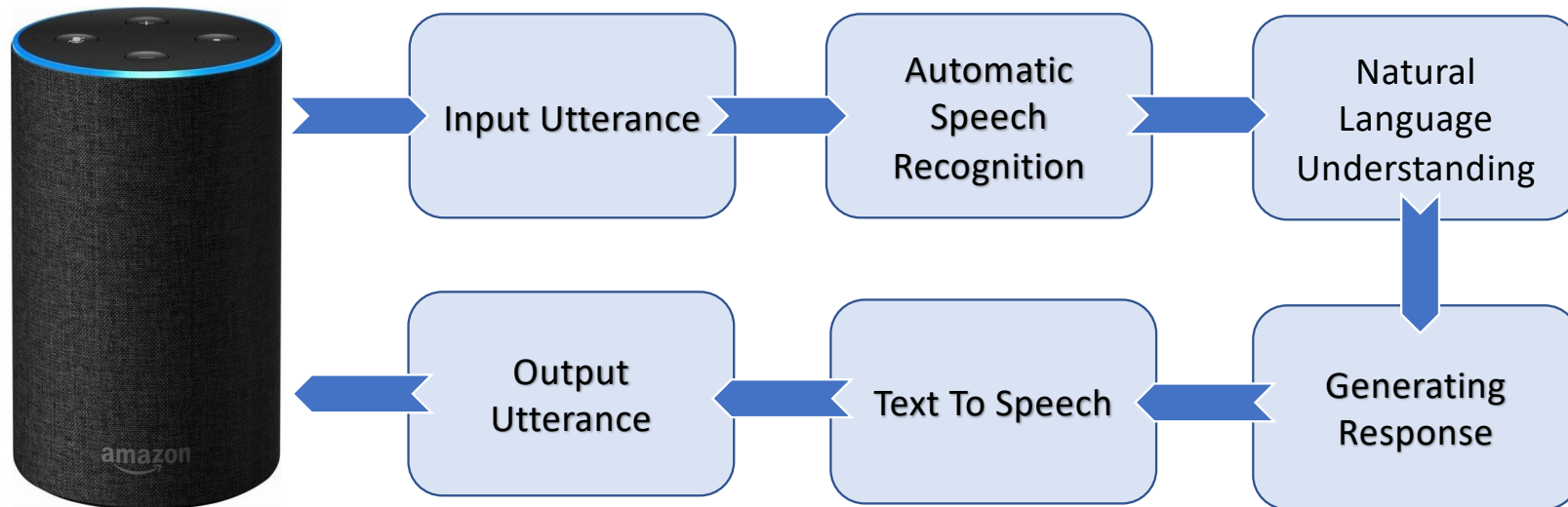
Motivation

- Rise of talk-active devices (Amazon Alexa, Google Assistant and Apple Siri)
- Amazon Alexa Prize 2018 Competition

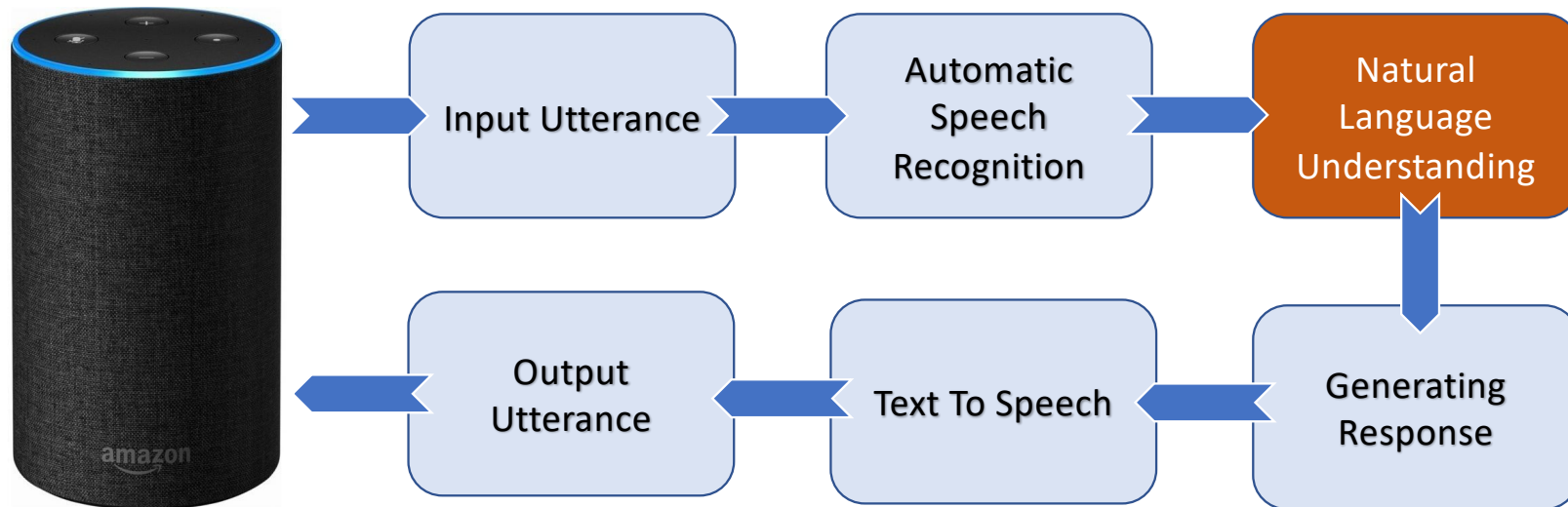


• Source: blog.pacific-content.com

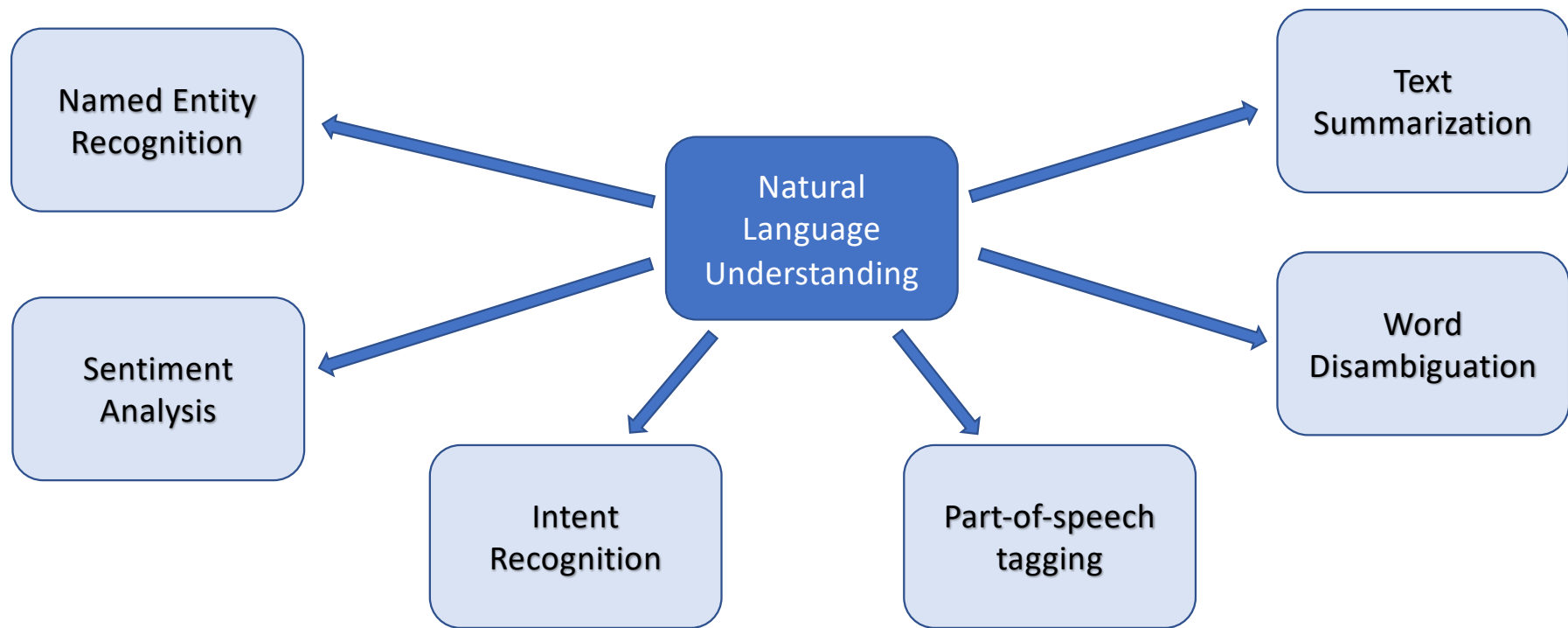
Motivation



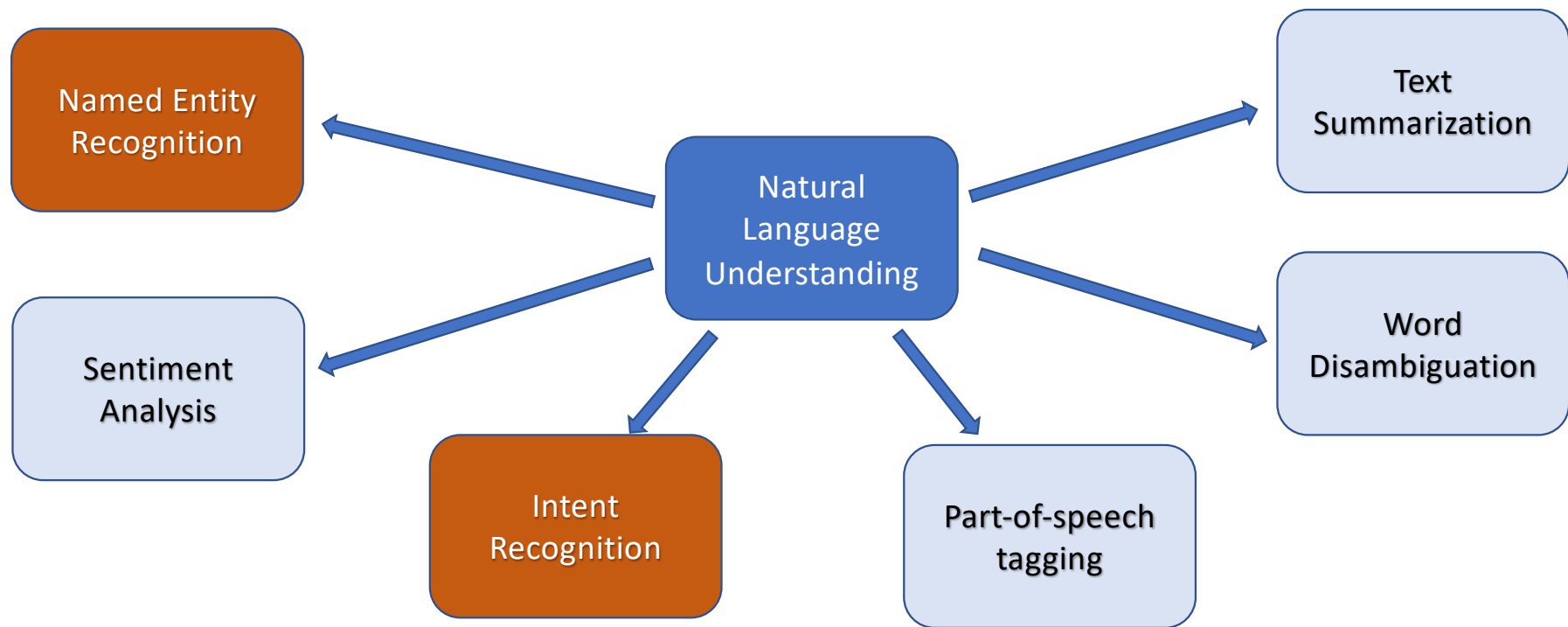
Motivation



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Objectives

- Find the best algorithm for intent and entity recognition in natural utterances in a social bot
- Compare selected algorithms regarding accuracy and memory requirements on multiple datasets

Experiments

- Combine joint algorithm for intent and entity recognition
- Create datasets for joint algorithm

Results

- The joint models preserve the NER accuracy and decreasing the intent recognition error rate
 - More memory efficient
 - Less time consuming training
- Prototype of best model with available REST API
- Algorithm for generating datasets of natural utterances

Thank you for your attention

Do you continue to develop and improve the system now?

- If yes, what would be your direction?