

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
(ACADEMIC YEAR 2015-19)
FINAL YEAR TECHNICAL PROJECT

E-HELP
(Admission Helping Chat bot)

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ADMISSION HELPING CHAT BOT

CHATBOT ???

A Chat bot is a service, powered by rules and sometimes artificial intelligence, that you interact via a chat interface.

Chatbot Ease of Registration and Admission for Students

Chabots help Familiarizing with the new atmosphere

Chatbot Data Assembling

Problem Statement

- Create a chat bot to automate the admission enquiry system.
- Deploy such chat bots on the institutions website to answer specific questions related to them.

Literature Survey

Paper 1:Content-Oriented User Modeling for Personalized Response Ranking in Chat bots

Major Discussions:

- Determine whether conversational constructs meet basic linguistic quality standards.
- Based on maximizing satisfaction and task success, and minimizing costs.
- Involves creating a performance function based on confusion matrices (counts of successful and failed communications) for each participant.

Paper 2: Agent Supported Serious Game Environment

Major Discussions:

- **Speed & utility time for the bots to respond**
- **Role of bot in admission to what extend it is helpful**
- **How the bot response to questions**
- **Presence & appearance of bot**
- **Role of admin in bot (managing enquiry)**
- **Also how bot assist in admission process**

Paper 3: Multilingual Speech-to-Speech Translation System for Mobile Consumer Devices

Major Discussions:

- **It consists of 3 main technology**
 - **• Speech recognition**
 - **• Speech translation**
 - **• Speech synthesis**
- **Mainly focus on performance improvement through text log- classify meaningful sentence, reduce reputation , special characters**
- **Performance improvement through acoustic log- excluding laughing singing , unclear speech, when speech of two or more person overlap.**
- **By this 2 method we can increase performance of speech recognition**

Paper 4: Humans and Bots in Internet Chat: Measurement, Analysis, and Automated Classification

Major Discussions:

- Transparent to inspection, discloses its chat bot identity
- Include errors to increase realism
- Convincing, satisfying, & natural interaction
- Able to respond to specific questions
- Able to maintain themed discussion
- Entropy based classifier or Bayesian based classifier

Literature Survey

Category	Quality Attribute
Performance	<p>Graceful degradation</p> <ul style="list-style-type: none">● Robustness to manipulation● Robustness to unexpected input● Avoid inappropriate utterances and be able to perform damage control● Effective function allocation, provides appropriate escalation channels to humans
Functionality	<ul style="list-style-type: none">● Accurate speech synthesis● Interprets commands accurately● Use appropriate degrees of formality, linguistic register● Linguistic accuracy of outputs● Execute requested tasks
Ethics & Behavior	<ul style="list-style-type: none">● Respect, inclusion, and preservation of dignity (linked to choice of training set)● Ethics and cultural knowledge of users● Protect and respect privacy● Nondeception ● Sensitivity to safety and social concerns

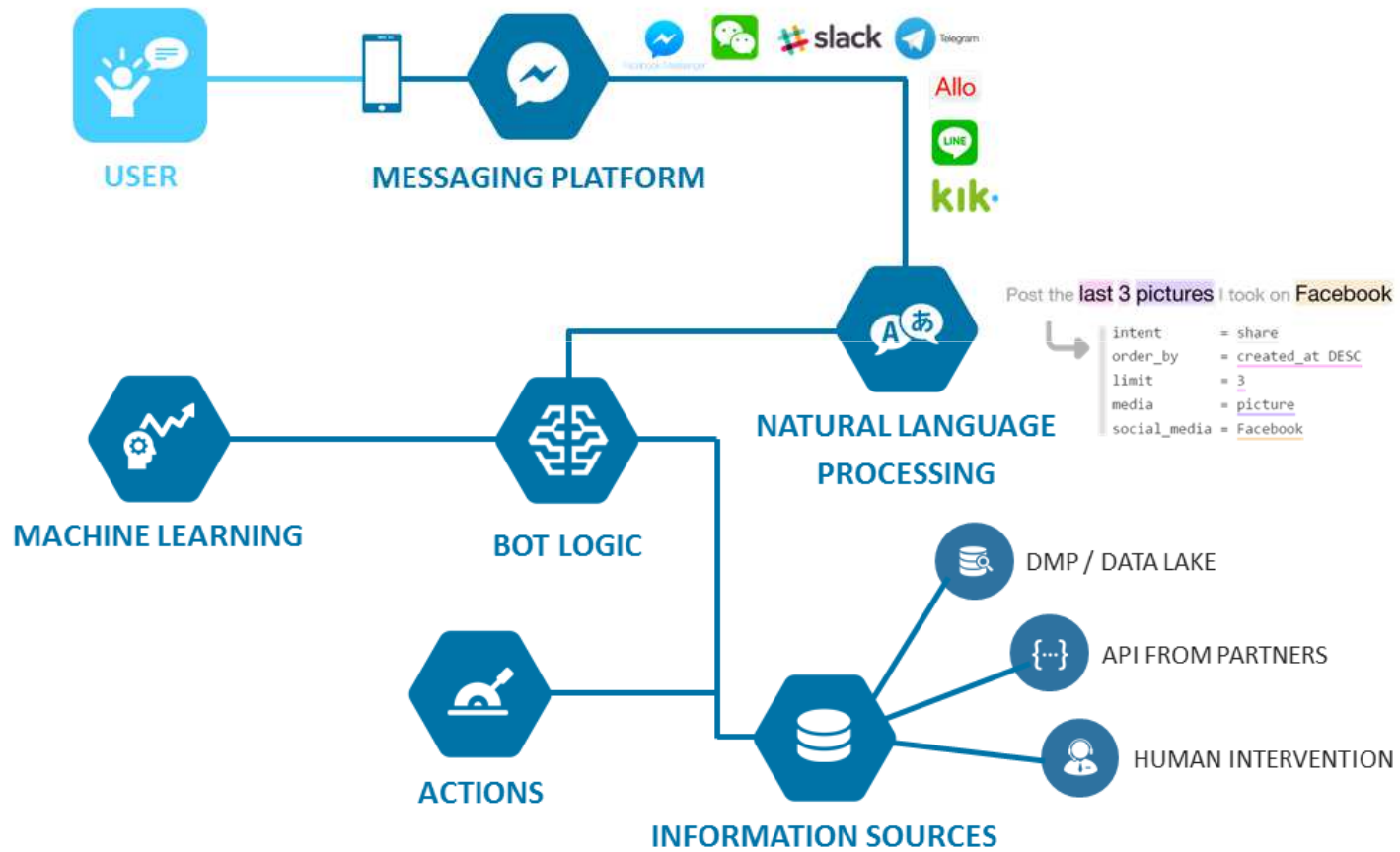
Literature Survey

Category	Quality Attribute
Accessibility	<ul style="list-style-type: none">● Responds to social cues or lack thereof● Can detect meaning or intent● Meets neurodiverse needs such as extra response time and text interface
Humanity	<ul style="list-style-type: none">● Transparent to inspection, discloses its chatbot identity● Include errors to increase realism● Convincing, satisfying, & natural interaction● Able to respond to specific questions● Able to maintain themed discussion

Literature Survey

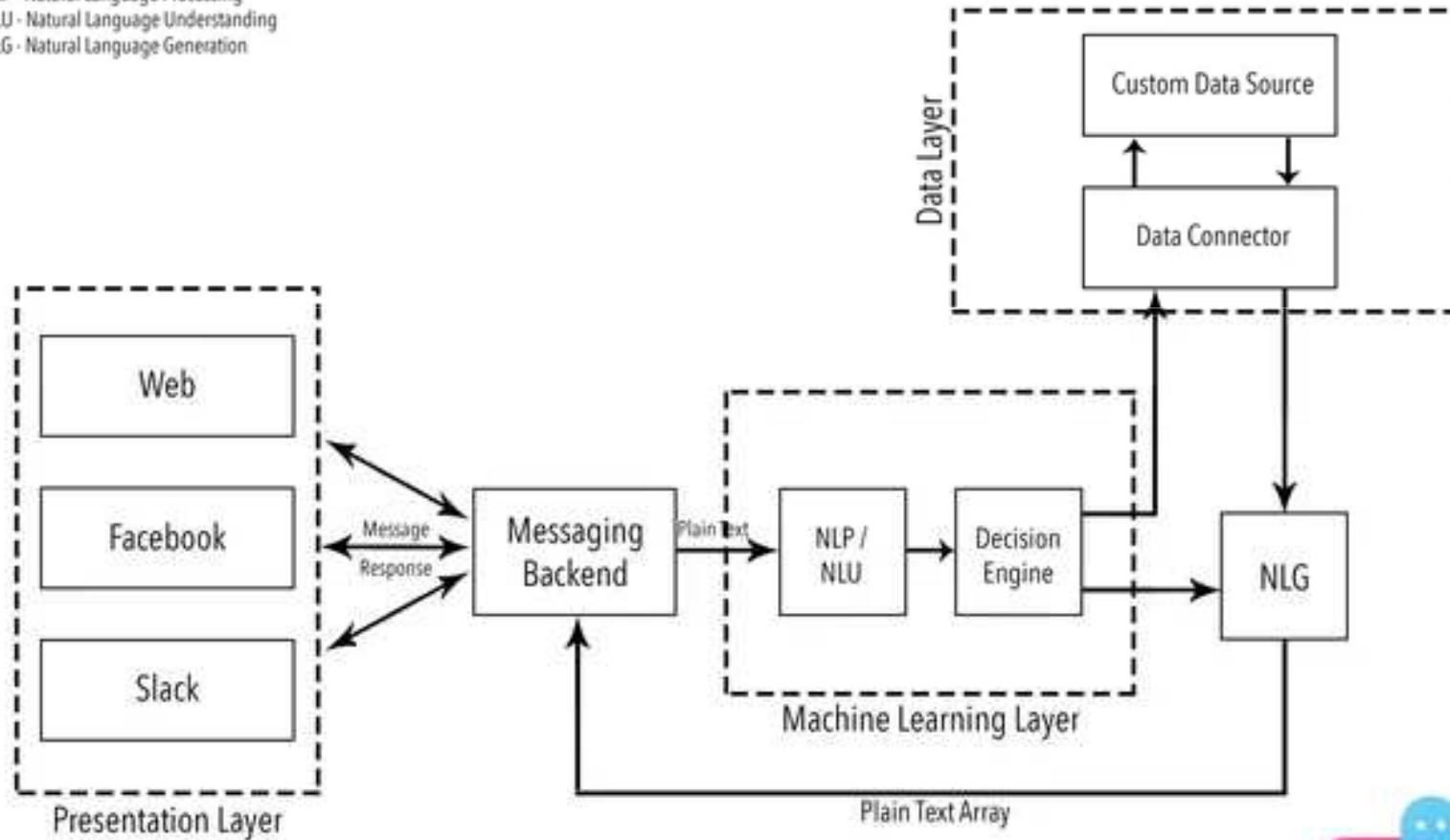
Emphasis	Conclusions & Recommendations
conversations	determine whether conversational constructs meet basic linguistic quality standards. Based on maximizing satisfaction and task success, and minimizing costs. Involves creating a performance function based on confusion matrices (counts of successful and failed communications) for each participant.
Effectiveness of question answering	Precision, Recall, and F1 could be metrics for how well questions are answered, but they fall short. New measures must take into consideration that utility of responses is subjective, different domains have different knowledge repositories, and information is always growing.
Examining linguistic quality of chatbot responses	Literature review established that nearly all chat bots met baseline requirements for linguistic accuracy, “grammatical fit”, and “meaning fit” suggesting that underlying frameworks and packages are fundamentally sound

Methodology



Methodology

Key:
NLP - Natural Language Processing
NLU - Natural Language Understanding
NLG - Natural Language Generation



Conclusion

- As chatbots are becoming progressively incorporated into our day-to-day lives, it is not surprising to see that it is very beneficial for the colleges and universities as well.
- From managing simple requests for college maps to handling more complicated tasks like course recommendations and class schedules.
- bots can make the students' life more pleasant and dynamic, and help them focus on their core competencies.