Chatbot Development

Different companies offering Chatbot services:

1. Microsoft Bot Framework (Azure Bot)
2. AWS Lex
3. DialogFlow
4. RASA

On the basis of simplicity - <https://www.globalme.net/blog/lex-vs-dialogflow-vs-watson-vs-rasa>

Analysis - <https://discover.bot/bot-talk/guide-to-bot-frameworks/>

Why are bots useful

Chatbot applications streamline interactions between people and services, enhancing customer experience. At the same time, they offer companies new opportunities to improve the customer’s engagement process, along with operational efficiency by reducing the typical cost of customer service.

Why Rasa was chosen

Due to its customizability and it being open-source, Rasa is the most desirable if companies do not want their data being sent somewhere else for NLU training and want more control over the development of the chatbot.

What the chatbot can do

* Different intents and entities are recognised with high accuracy.
* Multiple intents in the same story
* Integrated with Slack successfully
* Retrieve data from database
* Can make additions to database – the python code is very similar overall for all database actions
* Create a dynamic flow – cancel intents halfway through, switch intents, etc., without having to hardcode every possible story path

Advantages

The difference between RASA and other NLP stacks is the difference between writing rules-based systems or neural networks. In traditional NLP platforms, the flow of a conversation is hardcoded in static if-then rules whereas the RASA platform uses techniques such as reinforcement learning to actively train models that can guide the dialog. From that perspective, RASA leverages deep learning techniques not only to recognize entities and intents in a dialog but to also to control its flow.

Limitations

* A bit of technical knowledge is needed for ease of understanding
* Python is necessary for custom actions
* A new version has been recently released which breaks backwards compatibility; hence, past answers on the otherwise extensive RASA forum resolving less common issues are not as helpful anymore.
* Integrations on any platform take longer and follow a somewhat complex process – Slack is relatively easy but website integration is more complex and all are prone to bugs.

Bugs

* When deployed on another platform like a website or Slack etc., sometimes the bot will initiate the fall-back intent – “Sorry, I don’t understand” – even after identifying the correct intent.
* With websites, unless you build a custom chat widget UI, you have to use one of the pre built UIs that are not affiliated with Rasa.