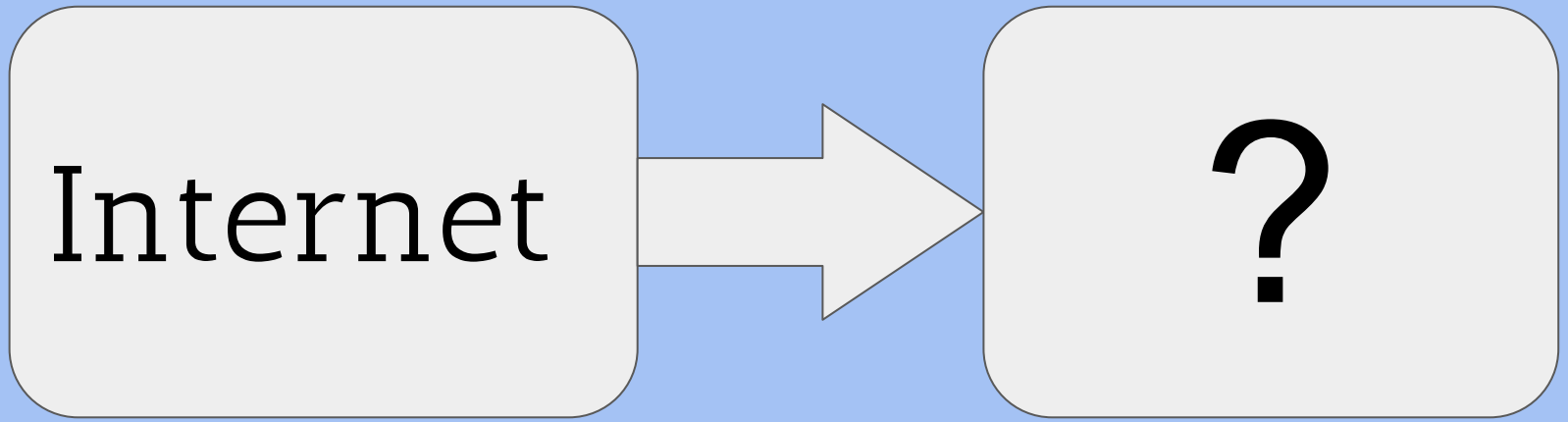
Humanity

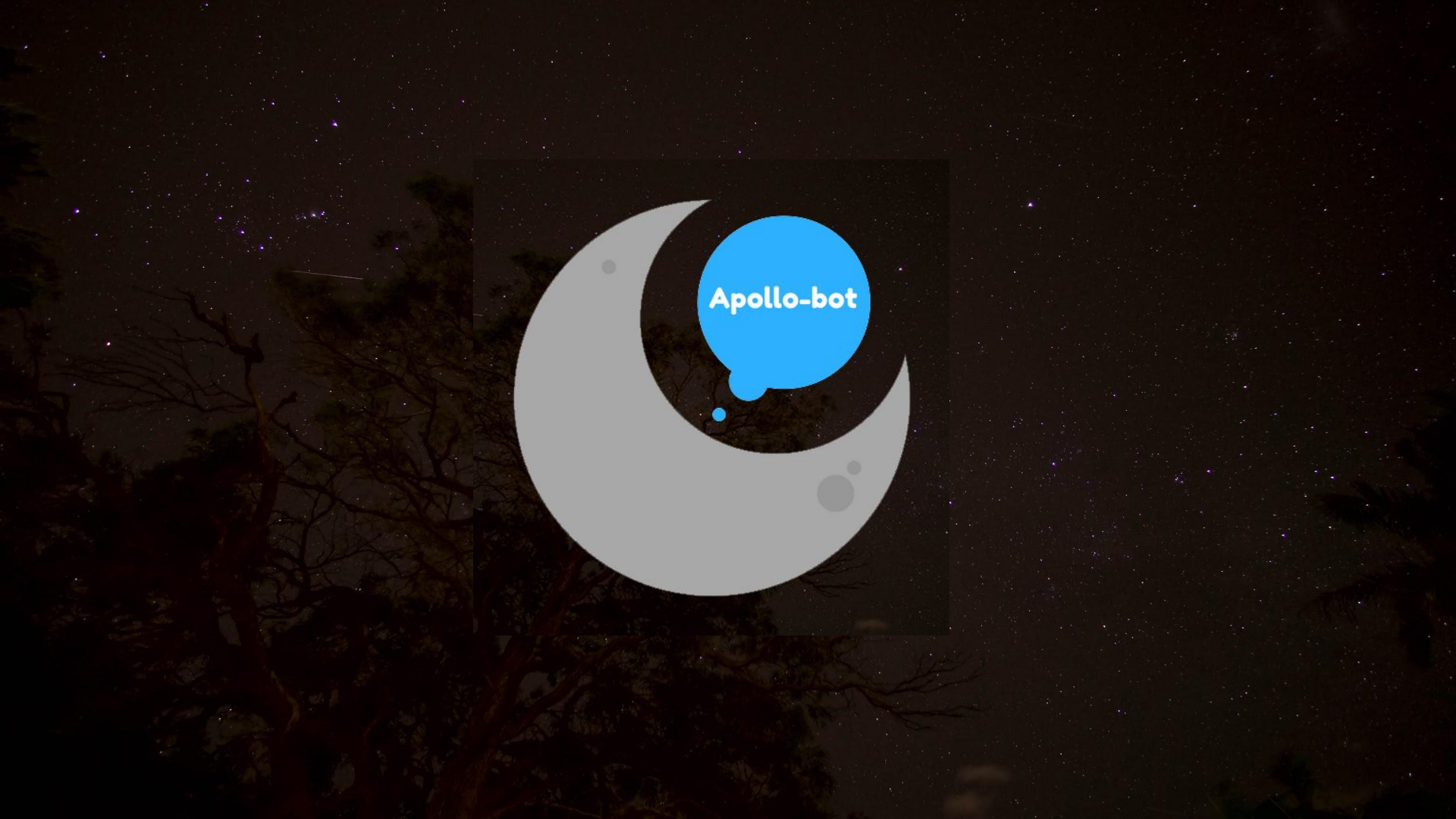
What's Next?

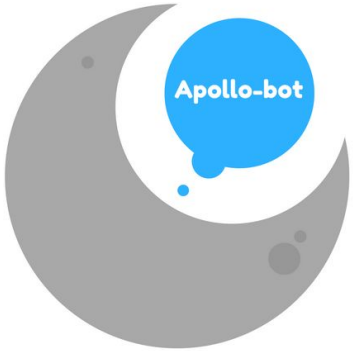


The Challenge

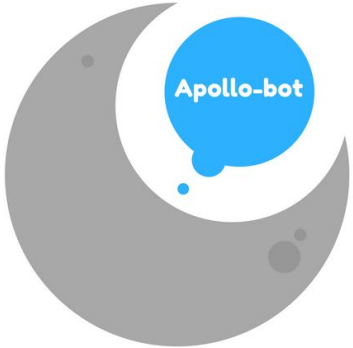
'Data Concierge'

Develop an artificial intelligence tool to help Earth science data users and enthusiasts find datasets and resources of interest!


Apollo-bot



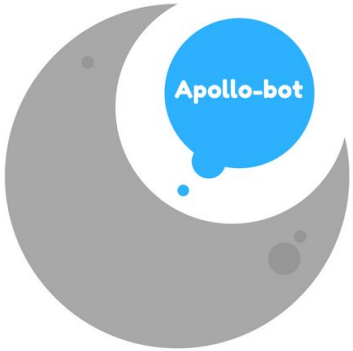
UN Global Goals



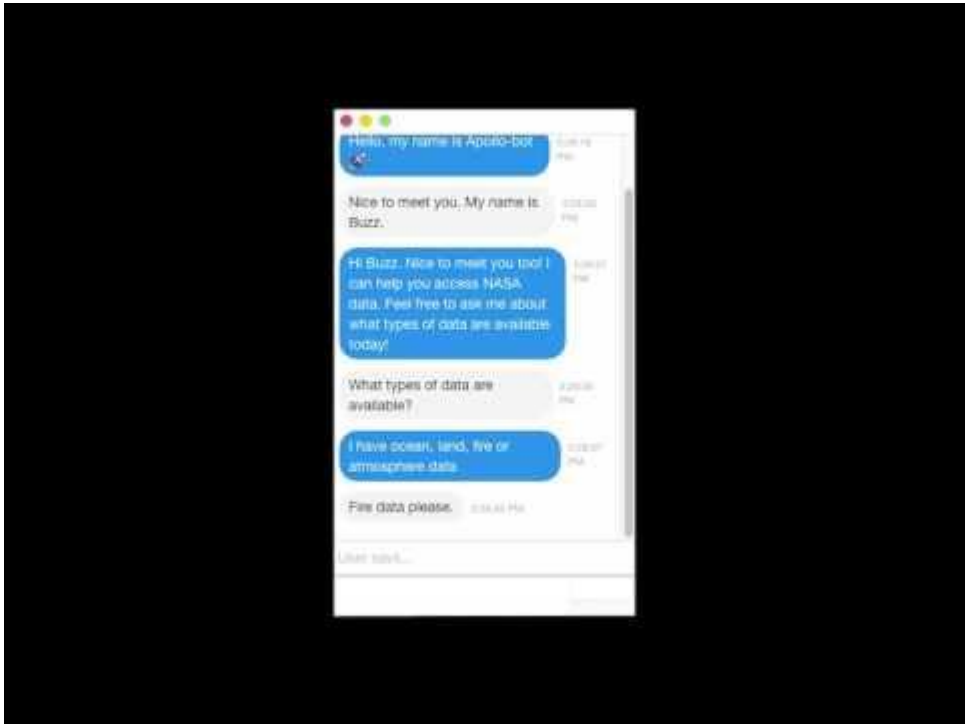
Our Solution

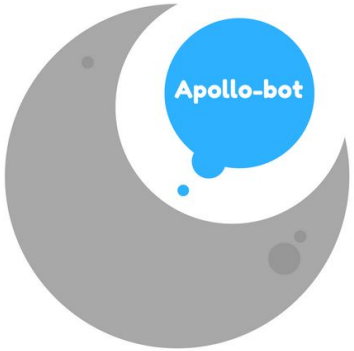
Create a Smart AI Chatbot.

'Apollo-bot'


Apollo-bot

Video Demo


Hello, my name is Apollo-bot
Nice to meet you. My name is Buzz.
Hi Buzz. Nice to meet you too! I can help you access NASA data. Feel free to ask me about what types of data are available today!
What types of data are available?
I have ocean, land, fire or atmosphere data
Fire data please.



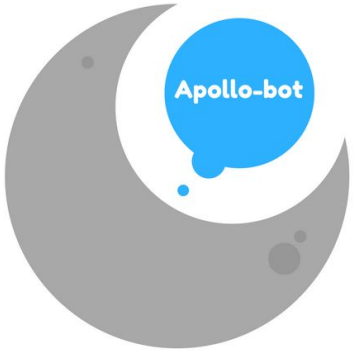
Why a bot?

It's not just a personal data assistant.

It's a powerful way to motivate action through connection.

We wanted to create something relatable to everyone.


So why not make data social?



Why a bot?

Consideration of various professionals

Big Scale

Air-quality managers

Climate analysts

Small scale

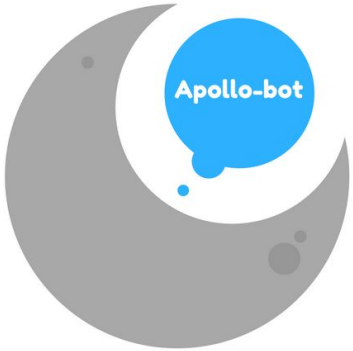
Fire prediction analysts

Farmers

Our Solution

Helps connect a wider audience to the impacts of climate change and environmental data.

Provides real-time information to users.

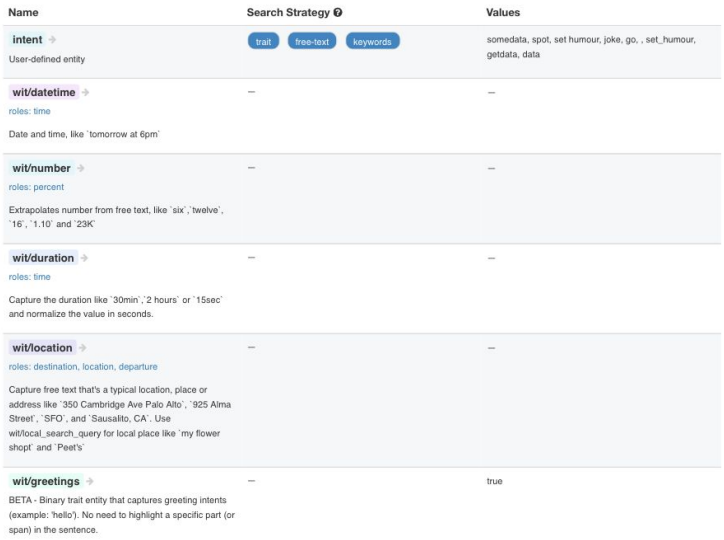


Specifications

- Lower the barrier to entry of access to NASA Earth data
- Runs on Facebook Messenger
- Designed with Wit.AI
- Identifies the datasets most useful to the user
- Creates and returns visualized data to the user.

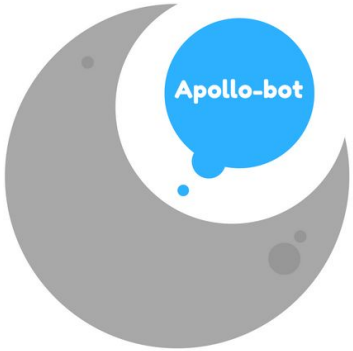
How do we do it?

- NLP (Natural Language Processing) algorithms
- NLU (Natural Language Understanding) algorithms



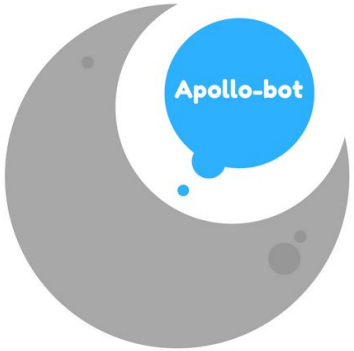
Name	Search Strategy	Values
intent → User-defined entity	trait, free-text, keywords	somedata, spot, set humour, joke, go, , set_humour, getdata, data
wit/datetime → roles: time Date and time, like `tomorrow at 6pm`	–	–
wit/number → roles: percent Extrapolates number from free text, like `six`, `twelve`, `16`, `1.10` and `23K`	–	–
wit/duration → roles: time Capture the duration like `30min`, `2 hours` or `15sec` and normalize the value in seconds.	–	–
wit/location → roles: destination, location, departure Capture free text that's a typical location, place or address like `350 Cambridge Ave Palo Alto`, `925 Alma Street`, `SFO`, and `Sausalito, CA`. Use wit/local_search_query for local place like `my flower shop` and `Peet's`	–	–
wit/greetings → BETA - Binary trait entity that captures greeting intents (example: 'hello'). No need to highlight a specific part (or span) in the sentence.	–	true

```
76  def select_joke(request):
77      context = request['context']
78
79      # jokes = all_jokes[context['cat'] or 'default']
80      # shuffle(jokes)
81      context['joke'] = all_jokes['cat']
82      return context
83
84
85  def get_data(request):
86      entities = client.message(request['text'])['entities']
87      location = entities['location'][0]['value']
88      time = entities['time'][0]['value']
89      context = request['context']
90      context['ret'] = str(Data(location, time).dataset)
91      return context  # str(data.dataset)
92
93
94  actions = {
95      'send': send,
96      'merge': merge,
97      'select-joke': select_joke,
98      'getdata': get_data,
99  }
100
101 client = Wit(access_token=access_token, actions=actions)
102 client.interactive()
103
```



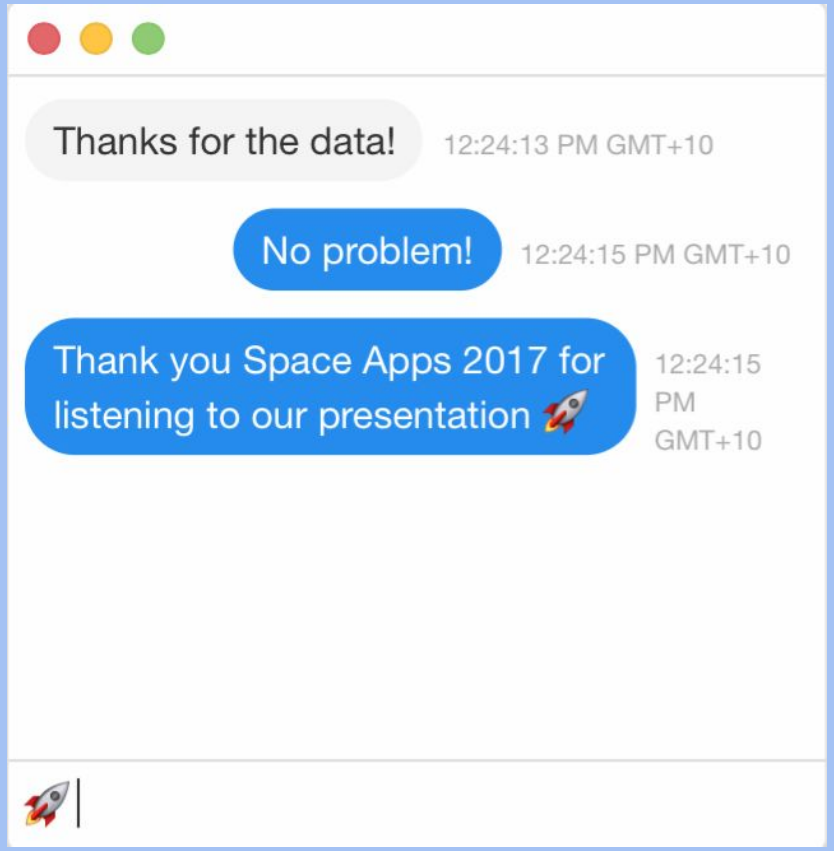
Stretch Goals

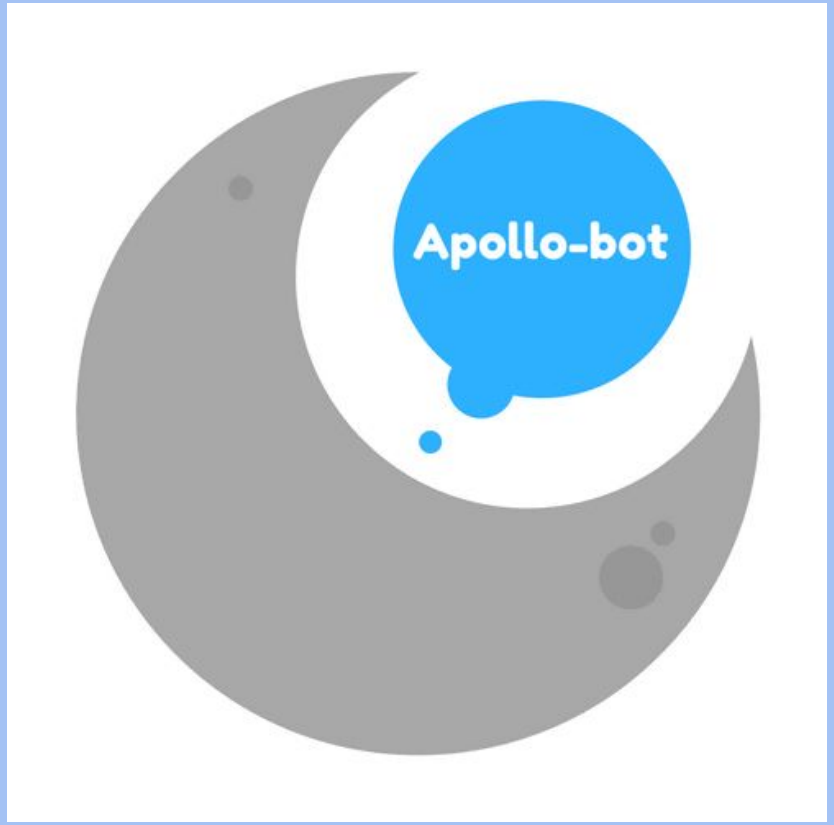
- Potential to be scalable across other all NASA datasets and resources
- Potential to shift behaviour of consumers through accessibility and engagement.
- Voice control
- Direct OS integration - Siri, Amazon Alexa, Cortana
- Knock-knock jokes



Humour Setting

Thank you


Thanks for the data!
12:24:13 PM GMT+10
No problem!
12:24:15 PM GMT+10
Thank you Space Apps 2017 for listening to our presentation 🚀
12:24:15 PM GMT+10
🚀


Apollo-bot