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Developing Chatbots for Mycroft and his Virtual Friends

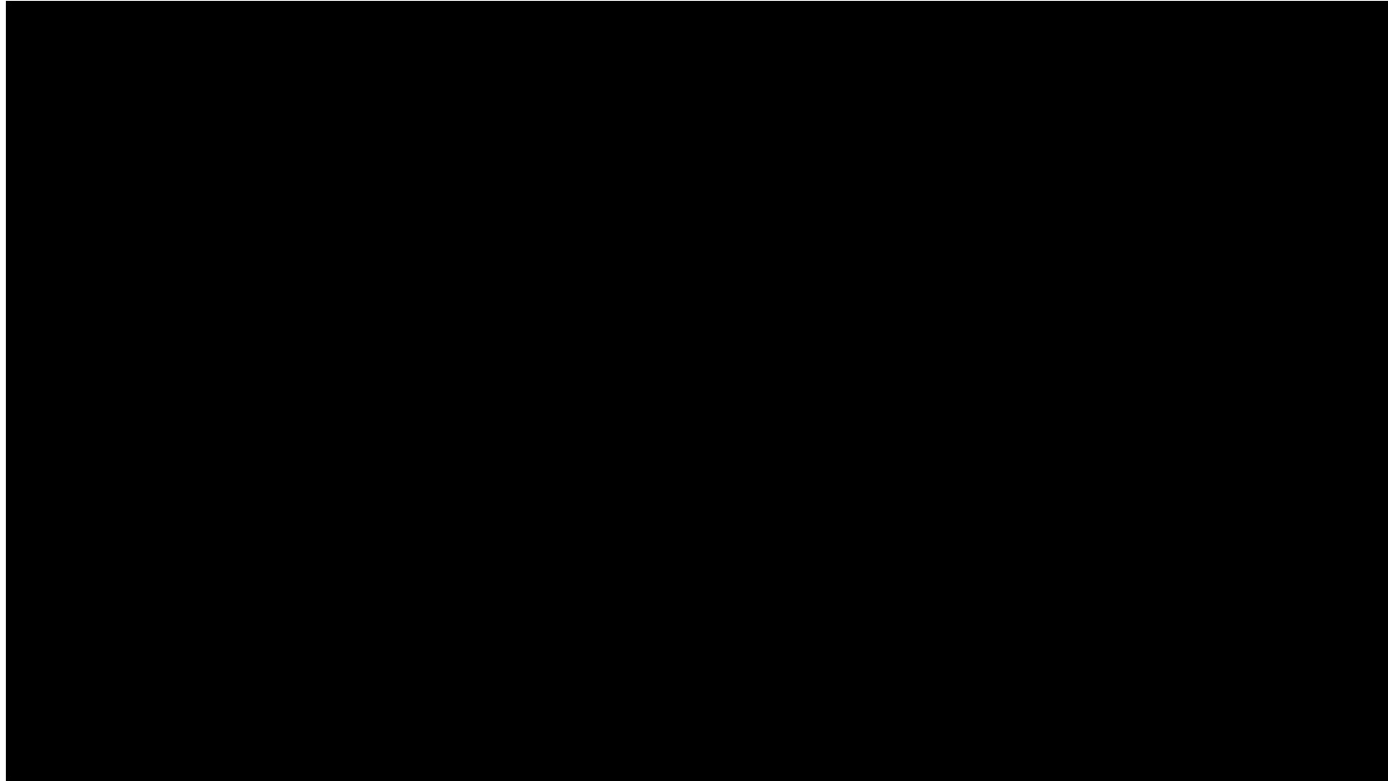
Laurie Hannon
Principal Consultant
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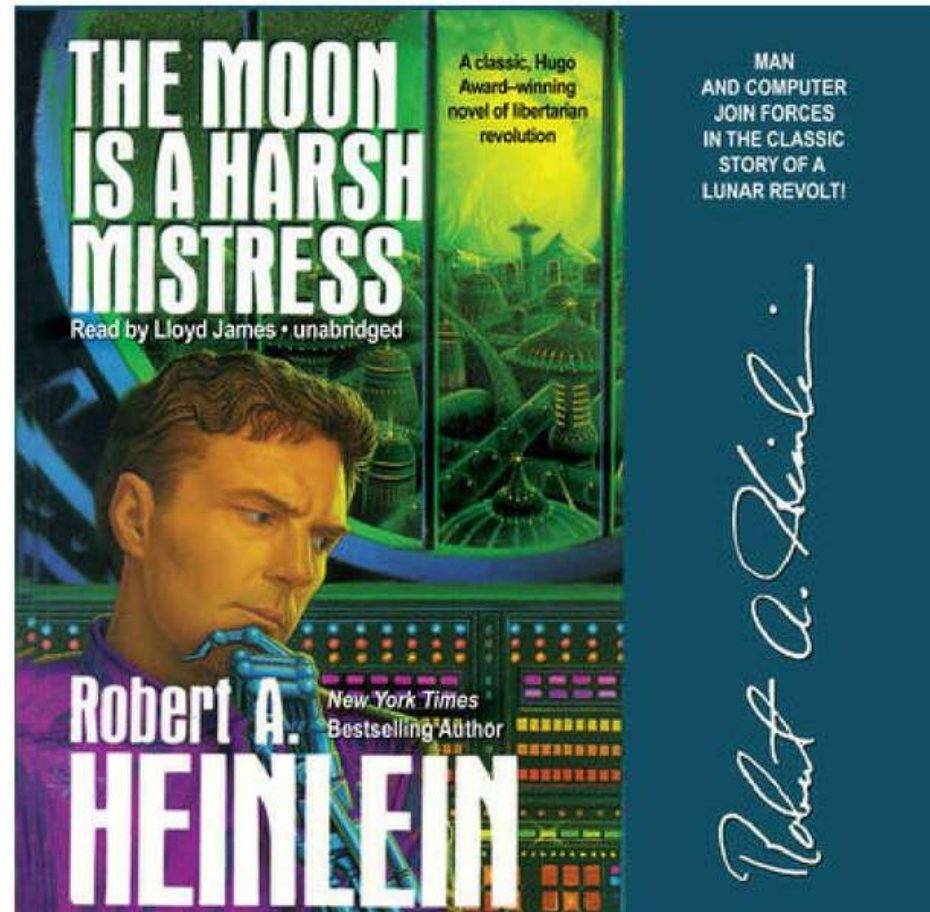
Meet Mycroft

Our new robot overlord

Origin Story



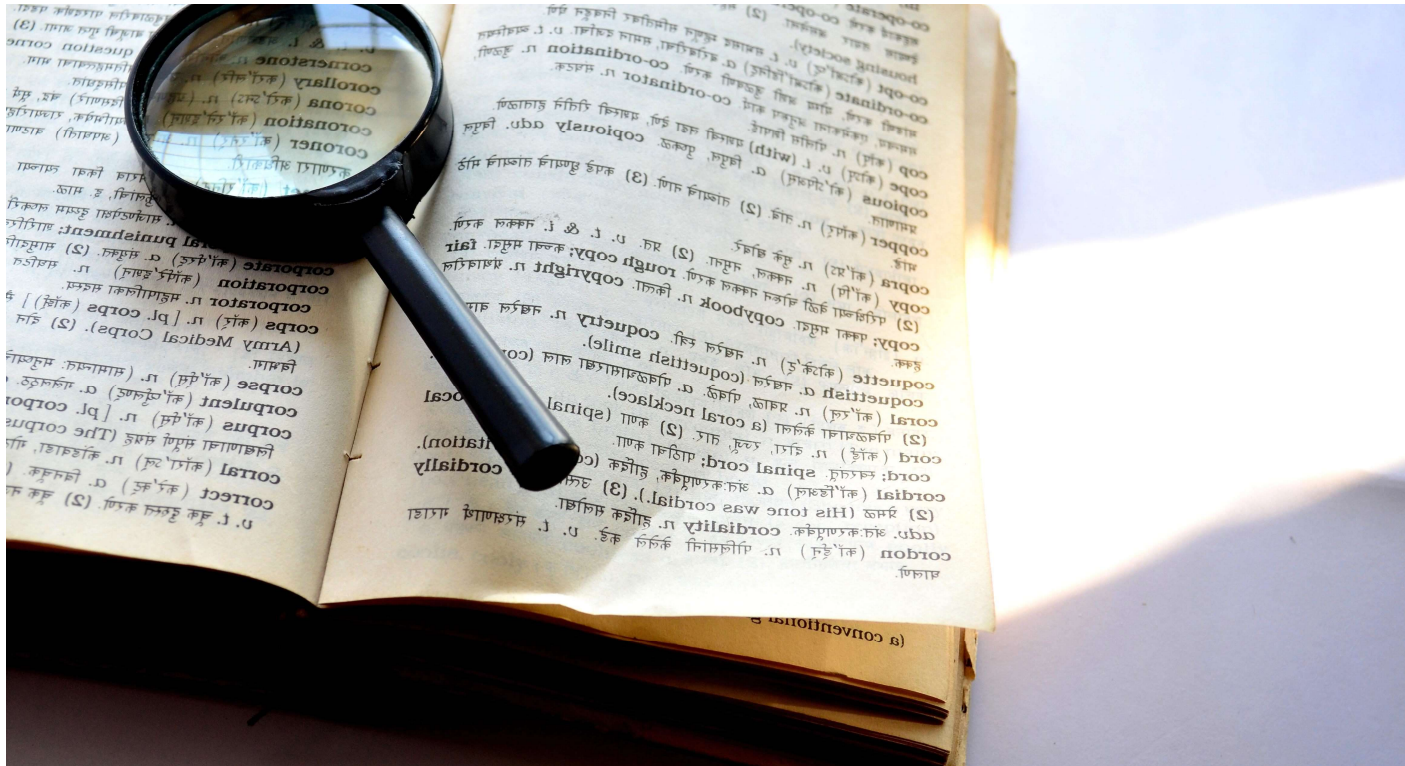
Origin Story



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Let's define some terms....

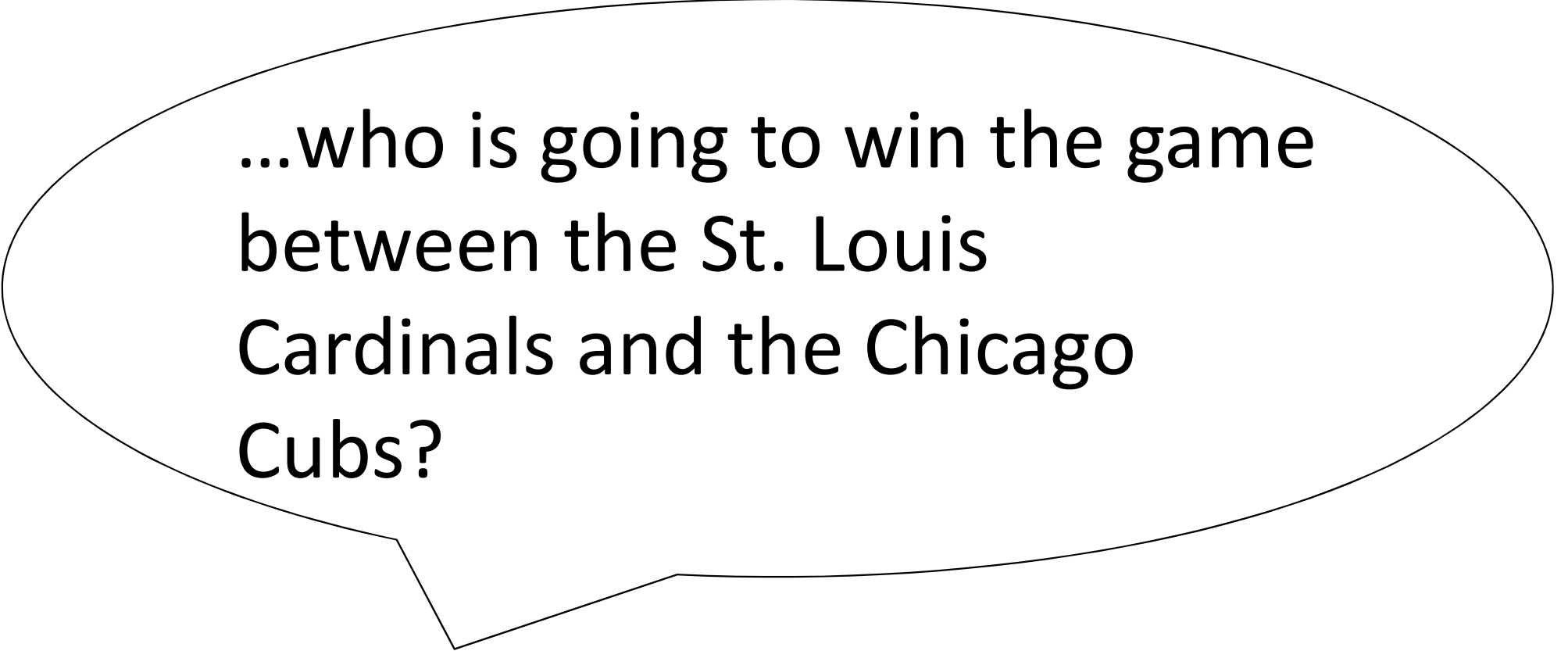


Wake Word



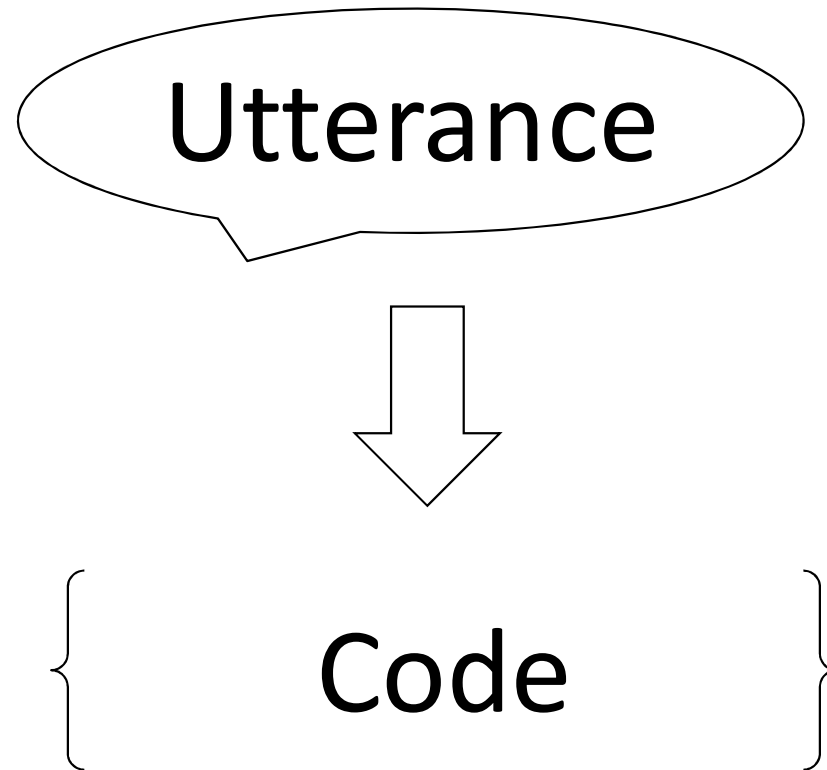
Hey
Mycroft,

Utterance



...who is going to win the game
between the St. Louis
Cardinals and the Chicago
Cubs?

Intent

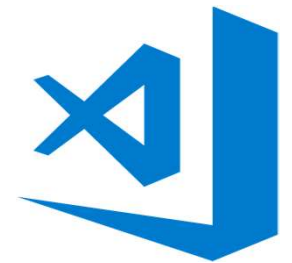
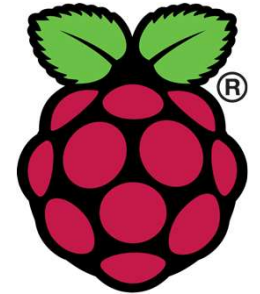


- Chatbots



- Web service

Tools for building Mycroft Skills



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Linux Demo

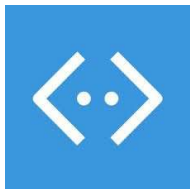
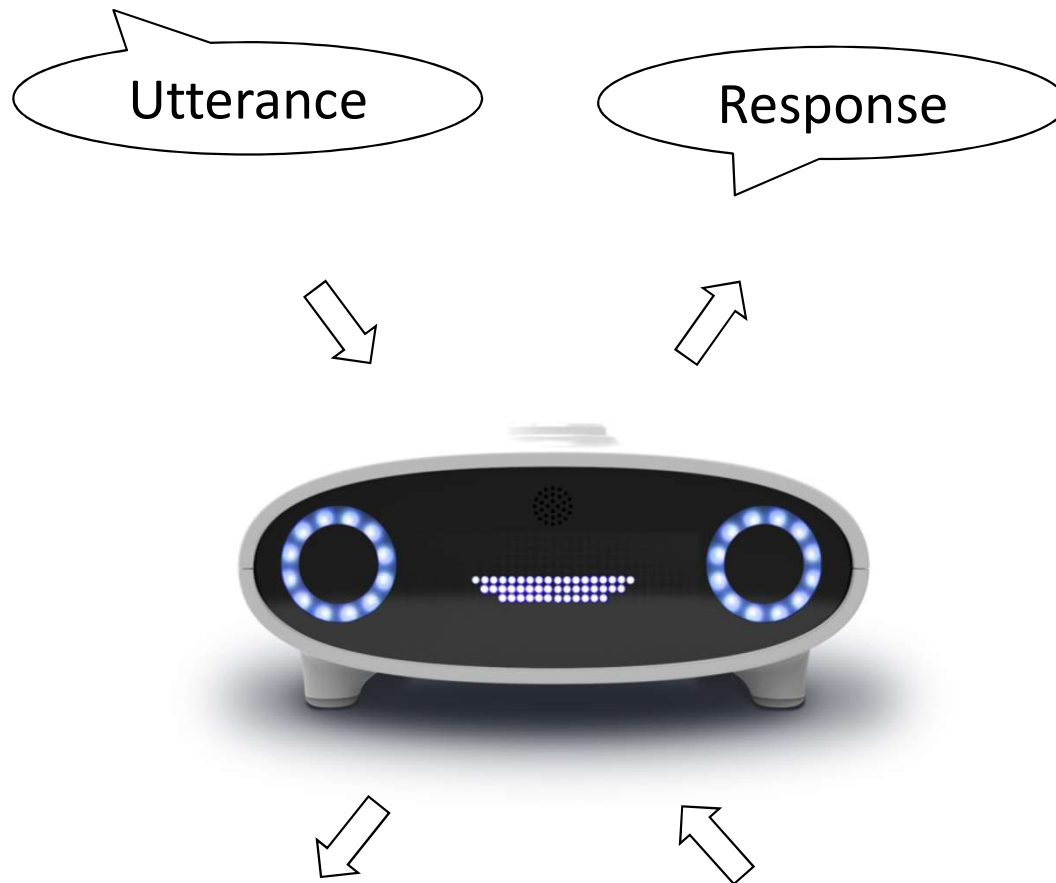
Mark I Deployment

- SSH
- GIT
- Some files and dirs in different spots
- All text interface
- Test how utterances are heard
- Test how responses sound

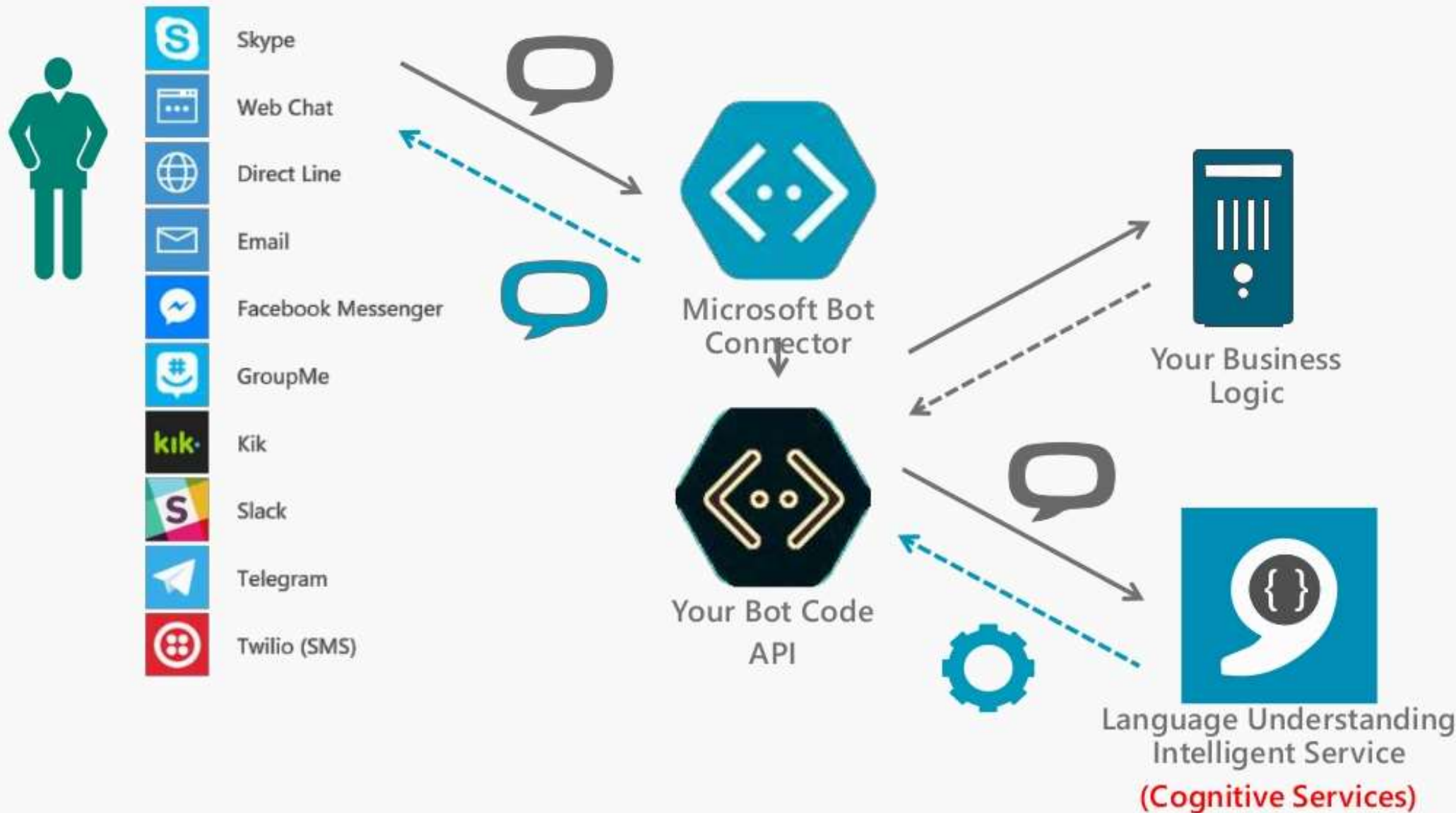
So that was native development as intended....

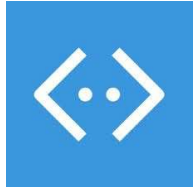
But what if want to implement the same skill...
for a different tech?





Bot Framework Chatbot





Microsoft Bot Framework Chatbot

- Define Intents with Language Understanding portal
- Implement intent handler in code
- What does that code look like?

What changes in our Mycroft code?

- Use a Fallback skill
- Fallback skill uses request library to make REST calls to chatbot web service
- What does that code look like?

Mycroft's friend Alexa

■ Native development

- Define invocation name in Alexa Console
- Define intents in Alexa Console
- Code AWS Lambda function



Wake Word



Skill invocation



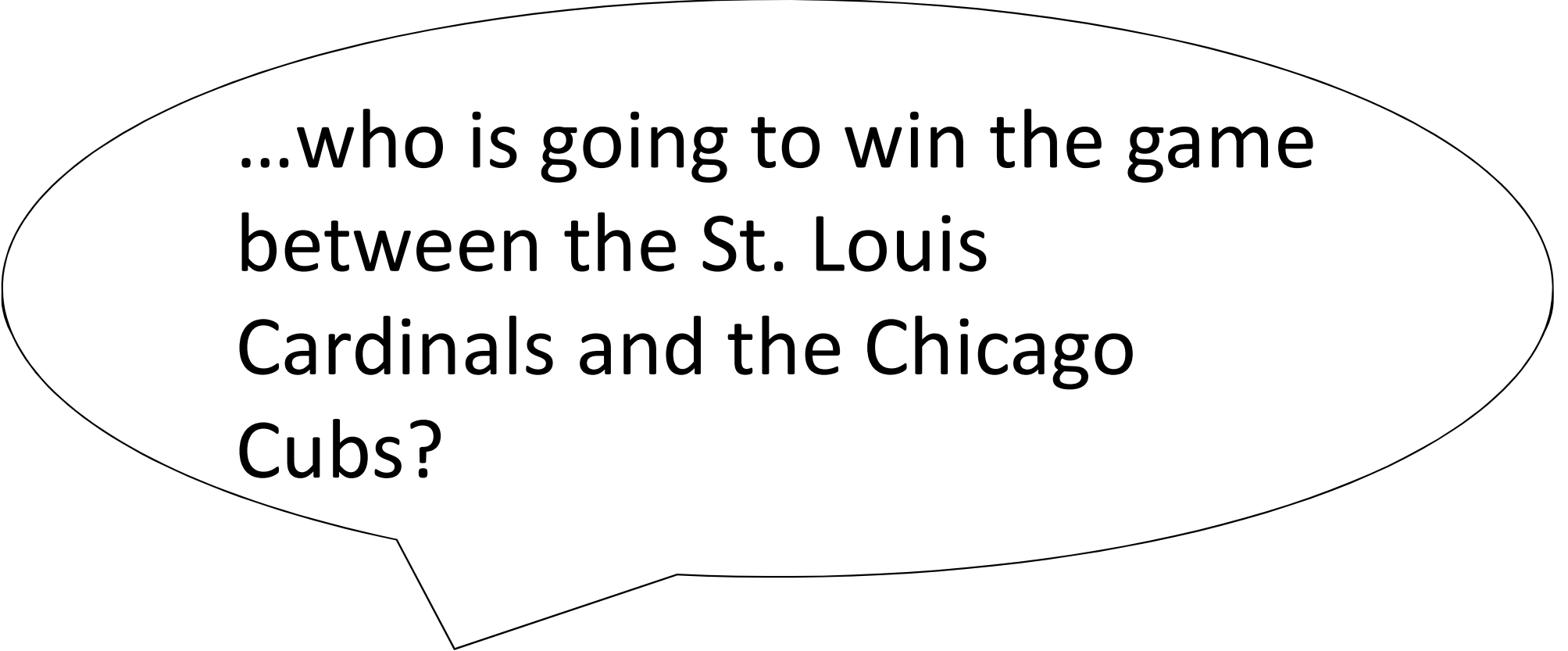
ask the decider

Intent

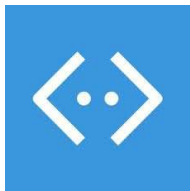


to decide

Utterance



...who is going to win the game
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Cubs?



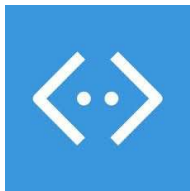
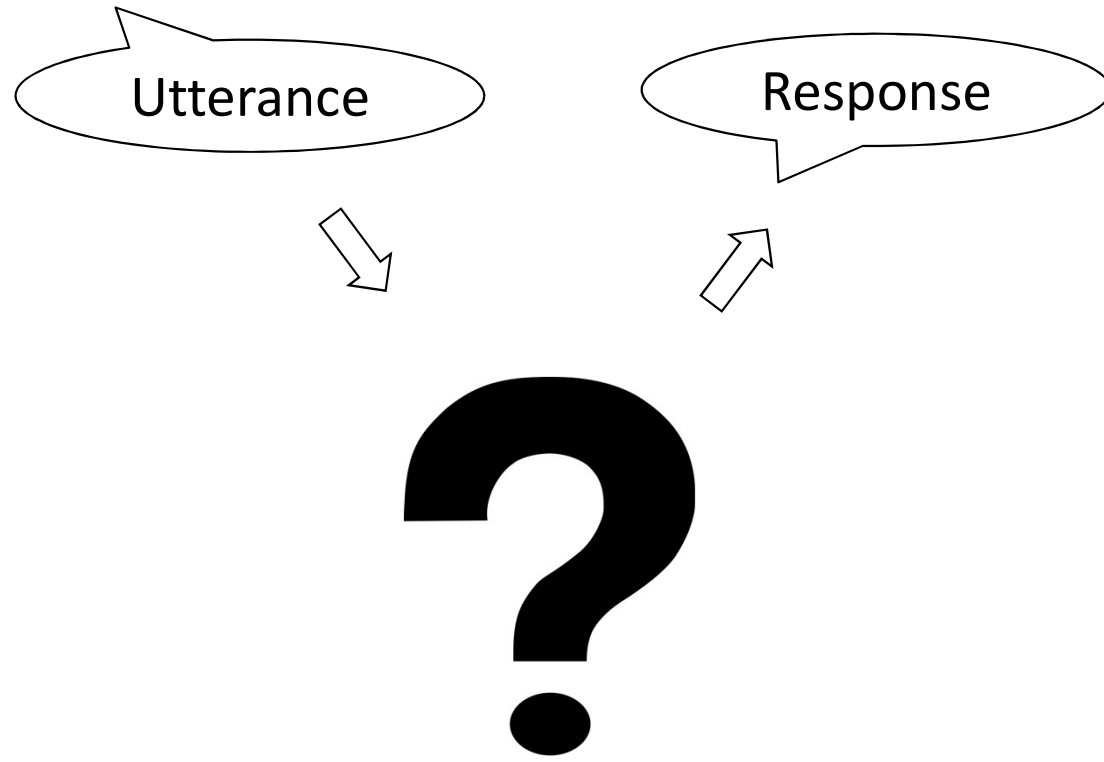
Bot Framework Chatbot

What's that code look like?

- Alexa4Azure

- Plus Microsoft Bot Framework Direct Line API
- Calls exact same bot framework code as we saw a few slides ago
- What does that code look like?

A Demo of Virtual Friends



Bot Framework Chatbot

How will you get involved?

- Support Mark II Kickstarter

- <https://www.kickstarter.com/projects/aiforeveryone/mycroft-mark-ii-the-open-voice-assistant>

- Invest in Mycroft AI company

- <https://www.startengine.com/mycroft-ai>

- Develop Mycroft skills

- <https://github.com/MycroftAI/mycroft-skills>

Or maybe you'd prefer...

- Develop Alexa skills:

- <https://developer.amazon.com/alexa-skills-kit>

- Write a Bot Framework Bot:

- <https://docs.microsoft.com/en-us/azure/bot-service/bot-builder-reference-overview?view=azure-bot-service-3.0>

- Write a webservice around a different bot tech

Resources

- Mycroft.ai: <https://mycroft.ai/>
- Azure4Alexa code: <https://github.com/tamhinsf/Azure4Alexa>
- DirectLine reference: <https://docs.microsoft.com/en-us/azure/bot-service/rest-api/bot-framework-rest-direct-line-3-0-concepts?view=azure-bot-service-3.0>
- My code:
 - Mycroft native skill: <https://github.com/lhannon/sftsrc-decide>
 - Mycroft fallback skill: <https://github.com/lhannon/mycroftfallbackdecideskill>
 - Chatbot web service: <https://github.com/lhannon/OSCONDirectLineBot>
 - Azure4Alexa modified: <https://github.com/lhannon/OSCONAzure4Alexa>

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