Artificial Intelligence: Short Circuit (1986)
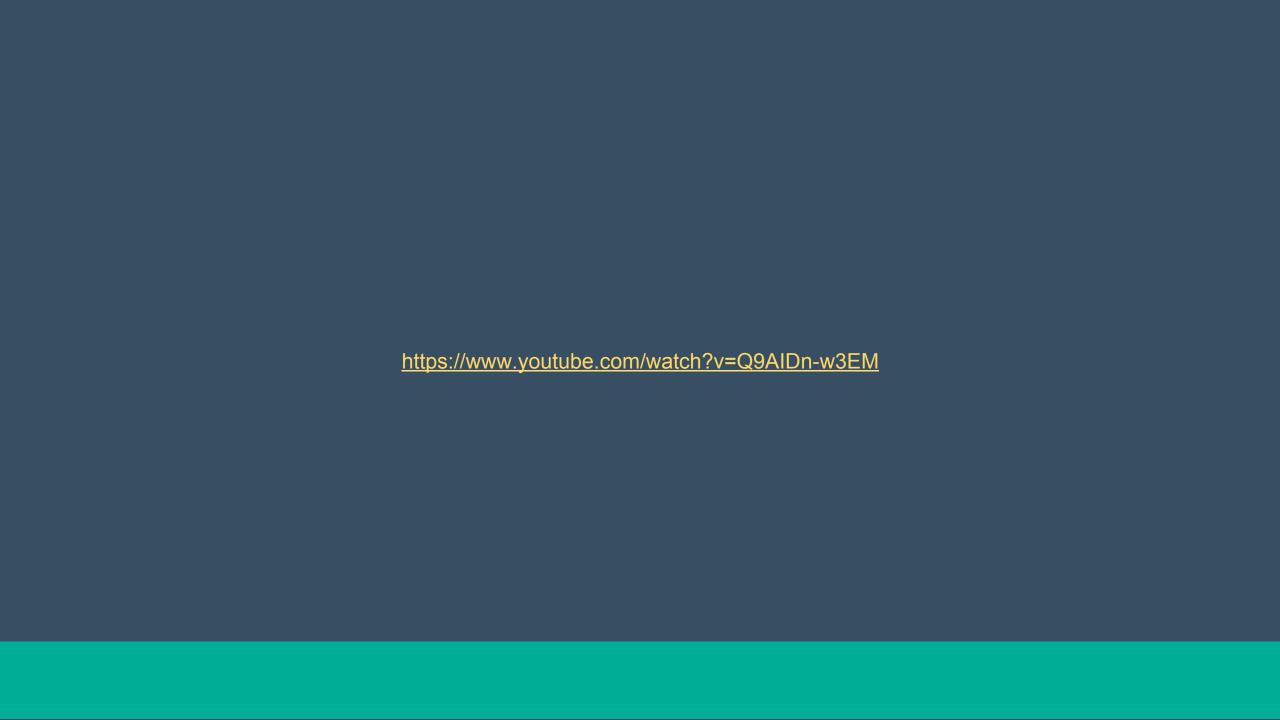
Jimmy Ji, Jake Fogel, Freddy Estevez, Kwun Yin Chan

Group 10
CSE 352
Professor Anita Wasilewska

https://www.youtube.com/watch?v=vWokC4nx7PA

https://www.youtube.com/watch?v=Q9AIDn-w3EM

Military to Therapeutic Applications for AI

- FROM SKYNET TO ELIZA (DOCTOR script)
- Discuss how Johnny 5 was designed as a marital aid and was used as a weapon

https://www.youtube.com/watch?v=Pj-qBUWOYfE

Learning

- Selection of Data
- Preprocessing
- Learning
- Interpretation

Data Selection

- INPUT!
- Johnny 5 is not particular about the "input" he receives
- Johnny 5 attempts to learn as much as possible

Preprocessing

- The primary preprocessing Johnny 5 does is Data Cleaning
- Johnny 5 is *filling in missing values*.
- As Johnny 5 is reading the encyclopedia, he is bombarded by words and information that is *inconsistent* to his current database.
- Johnny 5 seems to be using classification and attribute values to map *the most probable value* to existing data

Supervised Learning

- Johnny 5 is using *classification* as his primary way of learning
- Johnny 5 is given a set of objects (in this case: words from encyclopedia), and he is each word is described by a set of attributes.
- Using words he has already learned, he is able to classify unknown sets of objects
- Johnny 5 is likely classifying certain words with similar attributes under a group of tuple with synonyms

Interpretation

- In the beginning of the movie, Johnny 5 simply relays what he has words he has classified
  - Stephanie insults Newton and Johnny 5 voices the synonyms.

- Towards the end of the movie, Johnny 5 is able to interpret *meaning* behind these words.
  - Modern AI technology hasn't reached that stage.

https://www.youtube.com/watch?v=WjeptaI2T8E

Potential for Development of Decidedly Human Characteristics

- Mortality (NO DISASSEMBLE)
- Love (Asks for hug & kiss from Stephanie)
- Humor (laughs at racist joke from Dr. Crosby)

AI in the 1980s vs. Now

- 1980's media depicted that Artificial Intelligence can end up sentient develop human qualities such as emotions, and be able to communicate with humans

- Modern AI is not close to that level but we have AI that is more specialized such as Google's AlphaGo or Google's RankBrain

- We do have personal assistant AIs like Cortana/Alexa/Siri

AI in the 1980s vs. Now

- We also have AIs that can communicate with humans in a limited way
  - Watson and Urban Dictionary
  - Microsoft's Tay Bot

- Real-life Johnny 5?
  - Promobot IR77

Sources

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- http://www.theatlantic.com/technology/archive/2013/01/ibms-watson-memorized-the-entire-urban-dictionary-then-his-overlords-had-to-delete-it/267047/
- http://qz.com/653084/microsofts-disastrous-tay-experiment-shows-the-hidden-dangers-of-ai/