

# An Introduction to Artificial Intelligence

Through the works of Alan Turing, Dr. Gunkel, and The Radiolab  
By Roger Lou

# The Academic Approach to Computers



# CMC



# Computer Mediated Communication

- How computers were viewed
  - Computing Devices
  - Then tool for communication
- Computers are technology
  - An extension of humans to help with efficiency

# From Medium to The Other



# The Evolving Nature of Computers

- Old operating assumption = Computer mediated communication = human to human
- 51% of all web traffic is nonhuman
- Computers can now respond with their own messages as opposed to human to human communication
- Spam Bots – a real example of computers to human interaction

# The Imitation Game

- Alan Turing's Imitation Game
  - A different way of asking "Can machines think?"
  - Can machines pass for human
  - If computers can simulate humans, they should be considered intelligent
    - Turing requires a 30% success rate of the computer fooling participants

# The Imitating Machine Communicates

- Why is communication so integral to the judgment of intelligence?
  - Turing's Assumptions of Intelligence
    - Intelligence is not directly observable. Communication is deemed a sign of intelligence.
    - Communication is a product of intelligence regardless of what's going on in the processor.
- Naysayers – Chinese Room – Real mental capacities are different from simulations of those capacities. Simulation is not duplication.

- Is imitation good enough for you to consider machines intelligent?

# Joseph Weizenbaum and ELIZA

- 1966, Weizenbaum creates ELIZA
  - Searches for keywords and reflects them ALA Rogerian Therapy
  - Converses with people and engages speakers
  - Caused Weizenbaum to flip his opinion of AI
- Machine learning
- Cleverbot – Rollo Carpenter

# Radiolab

- Robert Epstein
  - Divorced in 2006 – started online dating after divorce
  - Chatting with Illyana until red flags
  - And it happens again

# Furby – Emotional Turing Test



- Caleb Chung wanted to make a toy kids could bond to.
  - How do you maximize a kid's time and bond with a toy? Make it seem alive.



- Three ways of creating the illusion of life
  - Furby must show emotion
    - Ears and eye movement show happiness and fear
      - Eyes only move up and down because side to side looks shifty
  - Furby must be aware of its surroundings
    - It can detect light and movement
  - Changes over time
    - Language adaptation over time

# THE EXPERIMENT



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5 MIN



1 MIN



8 SEC



# Dolls VS Robots

- Sherry Turkle
  - Furbies push our Darwinian Buttons
- Relationship of Projection
- Relationship of Engagement

# Interviewing Robots

○ BINA48



- Moral of the story = people will respond to robots if it is relatable.
- We as humans put meaning into what we look at.
- Programmable human responses.

# Are Machines Capable of Original Thought?