

Aim: What is Artificial Intelligence?

Do Now: In your own words, what do you think of when you hear the words "artificial intelligence" ?

Artificial Intelligence: the theory and development of computer systems able to perform tasks that normally require human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages.

VIDEO DISCUSSION QUESTIONS

How closely must a computer resemble a human for the computer to be considered intelligent?

- Computers must develop empathy/feelings
- Computers must be able to make decisions
- Computers must be able to hear/see/speak fluently

Do you think it is possible for computers to become more intelligent than people?

- No, because humans created computers so they can't surpass them
- No, because humans have empathy and feelings and computers will never have them
- Yes, because computers may develop capability to teach themselves

Why might it be relatively easy for computers to become masters at chess while struggling with human vision and language?

- Chess is much more formulaic and algorithmic (procedural)
- Human vision and language is difficult to program – never the same

ACTIVITY: TWENTY QUESTIONS

In this activity you will play a few games of *20 questions* against a computer. The computer will ask you questions and then will try to figure out what you are thinking of. This is an example of very basic artificial intelligence.

- Go to 20q.net.
- Choose "Think in American"
- Choose an object you want the computer to guess.
- Answer the questions accurately and see if the computer guesses your object within 20 questions.

ACTIVITY QUESTIONS

Did the computer guess your object? If so, how many questions did it take to guess your object?

- Average guess is 17 – 19 questions
- 20Q says they are accurate 80% of the time

How intelligent is this game of 20 Questions?

- It can teach itself
- Learns from people's guesses
- Learns from mistakes
- Hasn't been programmed since 2007 but has more recent guesses