

# HW3: Computer History

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## 1 Introduction

The topic chosen for this paper is Artificial Intelligence and Robotics. Artificial Intelligence, or AI for short, are machines that demonstrate intelligence. They are capable of understanding their environments and can take actions in response to their environments. They are made by computer scientists to solve problems typical programs cannot solve. They can also be created to learn, allowing them to adapt to new situations.

## 2 Time Period

Artificial Intelligence were first theorized by Warren McCulloch and Walter Pitts in 1943 with their formal design for Turing complete artificial neurons. Research of AI was started in 1956 at Dartmouth College after the invention of digital computers. The reason AI were researched is because of the possibility of creating an electronic brain. It was also theorized that the creation of general artificial intelligence would be capable of doing any work a person could do. The intent was to replace all, if not most jobs, with AI, but the difficulty of the task ended up being far greater than anticipated. So research slowed until 1980, when expert system, a form of AI program that managed to simulate the analytical skill and knowledge of humans. This was followed by another lapse in research until the late 20th century and early 21st century when AI began to solve specific problems. As faster computers, the internet, better algorithms, and more data was found, AI research gained a lot of popularity. AI have become so prevalent that they are now used in video



Figure 1: Picture of AI Visualized

games, solving analytical problems, board games, search engines, advertisement, and much more.

## 3 Computer Hardware

The hardware used for AI is typically computers capable of using specific programming languages. Since digital computers were first made accessible, researchers were attempting to create AI. Now they can be run on nearly any computer, depending on the task(s) they are created for. Very complicated tasks tend to require more powerful machines like supercomputers or quantum computers. Simple tasks may only require basic computers with a processor and enough memory to run the AI.

### 3.1 Computer Software

The first tools to make AI was the programming language LISP also known as list processing. AI give the ability to think and preform tasks to robots. There is no commonly used software other than the modern programming languages

and IDE's. There are multiple new ways of going about AI now like neural networks and generational development.

### 3.2 Conclusion

In conclusion AI and robotics are a new and developing part of computer history. AI and robotics are tools of the future and they will only reach their true potential. These technologies are truly revolutionary and the next stage of major computing. Like a lot of technology in their infancy the potential are amazing.

### 3.3 References

Where we got the most of the information

ComputerHistory.org -<https://www.computerhistory.org/revolution/artificial-intelligence-robotics/13/293>

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