

In recent years IBM's David Ferrucci has headed a group of people with the goal to program a computer "smart" enough to compete in Jeopardy. Part of the problem with the computer was that it was hard for the computer, named Watson, to comprehend the questions Jeopardy presents. It's difficult for Watson because the programmers can't write rules for every combination of words or phrases. Also many phrases have double meanings, puns and emotions involved that humans can pick up and understand but computers cannot.

Computers when searching for answers use rules-based algorithms. This system looks for key words and matches these with words in documents that might have the answer. But for understanding some of the questions on Jeopardy the rules-based algorithm doesn't work for programming artificial intelligence because it doesn't focus on the whole question and what it really is asking. In Jeopardy questions some of the key words the computer picks up isn't what the question is asking. This is why Watson originally gave answers way off base.

David Ferrucci and his crew decided to improve the rule-based algorithm Watson ran by with a new system called Machine Learning. This system hunts for patterns in documents and questions that the programmers insert in the computer's memory. The system was a crucial element of Watson and its understanding questions.

Still this wasn't enough for Watson to compete with the top competitors of Jeopardy. The final piece added to Watson that helped fully understand the question categories on Jeopardy was a speech recognition system that correlated with machine learning. This would allow Watson to understand previous answers from competitors and would be able to process the

similarities of the questions in the categories by being able to pick the right key words and retrieve the right documents.

With all these improvements on Watson's technology he was able to win against the two top Jeopardy players. This was a major milestone in modern technology having a computer beat a top competitor in what is called a "smart man's" game. However this technology has moved from the game to useful purposes. Watson's technology can be used in the medical field and be a doctor's assistant. Also Watson-like technology is being used in iPhone's Siri, it can listen to your speech, process it, and figure out information you want to receive.