

Smartest Machine on Earth

Video Lecture Title

Video Lecture Speaker(s)

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Due Date: 04/14/18

For each assigned video, you should fill out the following report and submit a hard copy of this at the start of class on the requested date. Failure to submit on time will result in a 0 score.

It's very important that this be in your own words, and that you write in complete and clear sentences. I will reduce your grade if I find the text to be ungrammatical or difficult to understand. Please do not cut and paste, copy, or paraphrase any text from any source in preparing this. If you submit any text that you did not write completely yourself, your score will be a 0.

[1 point] Brief Bio of Speaker/s (including current title, affiliation, web site plus a brief description of their background and interests).

David Ferrucci was the team lead for the IBM Watson project in which he and his team developed this incredible machine. Currently he is not working for IBM anymore but founded his own company that deals with machine intelligence. Watson faced off against 2 of Jeopardy's best contestants, Ken Jennings and Brad Rutter. Ken Jennings is known for having the longest win streak in Jeopardy history, a total of 74 games in a row. Brad Rutter is the highest earning Jeopardy contestant winning \$4,455,102

[2 points] In 25 words or less (seriously) what was the most important point (in your opinion) of this presentation?

Computers are excellent at certain things but not processing natural language. With the advancements in NLP we can make a computer understand puns and advanced sentences.

[2 points] List five (5) facts that you learned from this presentation. These should be actual verifiable facts (rather than opinions). Please express them as complete sentences.

1. Watson was not connected to the internet when playing Jeopardy
2. Watson parses through books, papers, and other sources to create a map of answers using the input
3. Doug Lenat has been programming "Common Sense" into a computer for 25 years
4. Watson contains 2800 processors
5. Watson contains about 10,000,000 documents and finds an answer in less than a second.

[5 points] Write a 300-500 word summary of the presentation. Please use complete sentences and take us from the start of the talk through the end. What were the main themes in the talk, how were they integrated together, and

how do they apply to what you have previous learned (in this class or another class)?

This documentary about Watson contains information about the process behind building and creating the machine which can answer the complex questions that Jeopardy presents. The idea was put to the test when Dave Ferrucci's team implemented IBM's best program to solve Jeopardy questions, but this program did not work as well as they had intended it to. Since Jeopardy is not a game with strict rules and questions are always changing a new way of implementing intelligence was required. A way the team were looking into doing this was teaching the computer common sense by inputting rules one by one. Psyche, the group who wrote 6,000,000+ rules, could answer a lot of common sense questions but that is not what Ferrucci's team needs. They needed a new system and that's when they created Watson with 2800 processors and filled the computer with millions of records. Encyclopedias, plays, books, websites, etc. were all added to his database. They started to use machine learning to best find the answers. They do this by loading Watson with all previous Jeopardy questions and answers and they train him. The first couple of tests performed on Watson were real life simulated Jeopardy games and the producers were invited to watch as well. There were some bugs with Watson but overall the project was starting to come together. Not yet admitted a spot onto Jeopardy the team went about fixing the bugs and making a way for Watson to get the correct answer after the answer had been revealed. This way Watson could pick up on patterns in a category very quickly as well as not repeat an answer previously stated. The project overall was a success and Watson did attend a game of Jeopardy against 2 of the best contestants that Jeopardy had to offer, Ken Jennings and Brad Rutter. Ken Jennings is known for having the longest win streak in Jeopardy history, a total of 74 games in a row and Brad Rutter is the highest earning Jeopardy contestant winning \$4,455,102. The winner of the match was not revealed but upon further research I found that Watson had crushed the other two contestants winning by over 45,000 dollars. I believe that this project was an absolute success in the development of machine learning and natural language processing.