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Source: [www.pbs.org/wgbh/nova/tech/smartest-machine-on-earth.html](http://www.pbs.org/wgbh/nova/tech/smartest-machine-on-earth.html)

Theme: Science

### Summary:

This video provides the background to the Jeopardy! showdown between the two best champions of all time, Ken Jennings and Brad Rutter, and Watson, an IBM computer that is the end result of a four-year effort to build the ultimate testament to machine learning. The show begins with interviews on scientist who dreamed and tried to build a machine smart enough to take our jobs, which then followed by interviews of the IBM team who built Watson and revealing some of the backstage stories of building up Watson. It also tells the difficulties for Watson to be compatible with the humans' champion.

### Response:

In fact, this Jeopardy! competition was ended in 16th February, 2011 and the result is just as most of the predictions, Watson won. Before I have watched this video, I strongly believe that it is for sure that Watson can beat humans. After all, it has the largest database than every human in the world: from wikipedia to dictionaries, thesauruses, bible and even IMDB, the international movie database. However, this video has told me the truth is, Watson, or the IBM development team, has gone through many difficulties before its huge success in front of the whole world.

If you still remember, in 1997, another super computer by IBM, Deep Blue, has defeated the world chess master Garry Kasparov. But in fact, chess is an ideal challenge for a computer because winning comes down to repeatedly selecting the best move from a vast but finite number of possibilities. This will not be the case happening to Watson as a Q-&-A exhibition like Jeopardy! is much trickier, and not just because it requires filling the computer with as large and varied a knowledge pool as possible. (Watson is basically a big search engine, but it isn't connected to the Internet when it enters the arena.) There's also the matter of understanding language well enough to successfully divine what piece of knowledge it's being asked to supply.

Because of the language barrier, it took Watson a few trips through the audition process before the Jeopardy! producers agreed that he was ready to go on TV. At one point during the try-outs, Watson was asked to identify which 18th-century flag was flown by U.S. navy ships "as a symbol of the war on terrorism." Human ears would naturally zero in on the flag as the important part of that statement, but Watson got hung up on the reference to the war on terrorism, ran a search for the phrase most heavily associated with that term, and responded, "What is September 11, 2001 attacks?"

As a science student, I totally understand why scientists interviewed in this video would be dreaming for their entire life to build an A.I. machine. It will be a great step in technology if a robot can really thinks and learns on it own without written rules and Watson had done that by machine learning. I remember particularly in a scene that Watson was required to answer questions based on the "celebrations of the months", which answers are in months. After four failures of giving stupid answers like "holidays", Watson has successfully learn from its competitors and give out the correct answers. It was totally amazing!

Yet, some people might be afraid that scenes in sci-fi movies like Terminators or A.I. would come to life if A.I. technology keeps on developing. However, even though Watson can learn from its mistakes by analyzing the similarities, it is still a far way for machines to have feelings like human. Therefore, as stated in the video, there is still a far way to go. However, I believe it is time for us to rethink about the relationship between human and machines. In the video, when Todd Crain and the human responders reacted as if Watson had relieved itself in the punch bowl, Farrucci, the lead of the IBM team fumes, "He (Todd Crain) is making fun of and criticizing a defenseless computer that represents people with real feelings, real families." When we criticize machines or laugh at their mistakes, I believe we should think back that the cool machine was developed by people with hearts like us.

According to IBM, "The goal is to have computers start to interact in natural human terms across a range of applications and processes, understanding the questions that humans ask and providing answers that human can understand and justify." Watson is only the start of the goal but I believe in the foreseeable future, this goal would be for granted.