Alan Turing, considered the father of theoretical computer science, is widely known for his contributions to mathematics, cryptography, biology and computer science. He is responsible for the creation of the latter called Turing Machine and the Enigma Machine. But one of the main reasons he is remembered today is for writing the seminal paper “Computing Machinery and Intelligence” on the topic of artificial intelligence. I believe that by knowing his work and its consequences we can stop feeling that A.I is something magical.

In his paper, “Computer Machinery and Intelligence”, he poses to consider the question “Can machines think?”. Quickly he suggests reformulating this question in less ambiguous words, saying that the new form of the problem can be described in terms of a game called the “imitation game”. This game is played with three people, a man, a machine and an interrogator. The object of the game for the interrogator is to determine which of the other two is a man and which is the machine. The interrogator is allowed to ask questions to either one of them. The twist in this game is that the man’s object in the game is to try and cause the interrogator to make the wrong identification. Turing then continues to ask: Will the interrogator decide wrongly as often when the game is played like this as he does if the game were played by two humans?

He then goes on to argue why is that this test is a useful way to determinate if a machine can think or not, whilst considering opinions opposed to his own. He mentions that he believes that in the early 21st century it will be possible to program computers to make them play the imitation game so well that an average interrogator will not have more than 70% chance of making the right identification after five minutes of questioning. We are a quarter into the 21stcentury, and we can say that he was right. Only a few paragraphs later, he mentions several concepts related to modern A.I models, and then is when it should strike the reader: Wasn’t A.I an invention of the 21st century and so magical that we are not meant to understand it? The short answer is no. The idea of human intelligence outside the human body was around since 1673 when Descartes wrote that if machines that imitated our body and our actions existed, we should always have two very certain tests to recognize them. This only works as an example to show that A.I and machine learning, despite being quite popular right now, always existed and was skulking in the minds of computer scientists, mathematicians and philosophers. This is because, at its core, artificial intelligence is a mixture of complex, and simultaneously simple, statistical models that have their own limitations and constraints.

Understanding and knowing the history of artificial intelligence and computer science can only take you so far to stop and think about how we ended up in a time where companies are running the A.I race, comparable to the space race, only to realize that things are not exactly as they say they are. Don’t misunderstand my true meaning: A.I. is a revolution and all jobs will have A.I. integrated in some way, but it is only a new tool to be handled by humans, not a solution to every kind of problem. So, when the next A.I company jumps on X (twitter) to tell you about how their new artificial intelligence model achieved consciousness and it is going to take your job don’t feel overwhelmed, it is just a simple statistical model.