Rise of the Machines

Elon Musk and Nick Bostrom are two that believe AI to be dangerous, and suggest that creating a rival to human intelligence is a major threat to mankind. This is completely opposite the optimism in the field of AI, as companies now realize that many of the things that only humans used to be able to do could now be performed more effectively with computers.

Computers and humans work in different ways, and while things that humans find complex are often more well defined by formal rules, things that are natural are harder to explain. Thus, many trivial tasks are difficult for a computer to perform. However, after learning how the brain works as a neural network, scientists found that with adequate computing power, the process could be simulated. With modern innovations in processing power, these networks can be simulated using layers of analysis, thus establishing “deep” learning.

For these machines to learn, they must train using large amounts of data. As the internet is a vast resource, so long as they can find properly labelled data, they can learn from it. The future now lies in “unsupervised – learning” algorithms, and to make these algorithms more capable in different situations. Deep learning allows for incredible image recognition, data classification, machine translation, and much more.

The argument is in whether these deep learning computers can lead the way to machines more intelligent than their creators. While there is no scientific evidence that shows a brain is anything more than a highly complex machine, it holds a level of “intelligence”. A computer may be able to recognize images excessively well, but it does so with no motivation, no consciousness, merely following orders. In many cases, deep learning still fails on situations where the human brain does not, particularly when creative thinking is required.

While it is unlikely that AI will let our computers will take over the world anytime soon, it still presents some worry. Many white – collar jobs could be replaced by technology for increased efficiency, much like what happened to the blue – collar jobs in the industrial revolution. With all that said, AI is still giving is incredible power, enhancing the abilities of all.