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Machine Learning

It’s been 33 years since the movie The Terminator debuted and introduced the world to the terrifying possibilities of what could go wrong with artificial intelligence in a very near future. Today, in 2017 Skynet is actually a real government program used by the NSA for its surveillance tactics. Luckily, as far as we know, they haven’t created any real terminators—at least none that we know of!

Machine learning according to Arthur Samuel, a pioneer in the field of computer gaming and A.I., is the “science of getting computers to act without being explicitly programmed”. It’s what makes the thought of the terminator so frightening. A computer can’t be reasoned with; it doesn’t feel pain or pity. If it can do something that it wasn’t programmed to do then we don’t really have any control over it do we?

Elon Musk, the billionaire Tesla and SpaceX CEO, has been on a crusade as of late to warn world leaders of the dangers of artificial intelligence. In a video at Vanity Fair’s New Establishment Summit he brought up a scenario in which a computer program could possibly destroy the human race if it were tasked with getting rid of something like spam. He pointed out that the “best way to get rid of spam is to get rid of all humans”.

Although it sounds like an outrageous scenario, anyone with any experience creating computer applications knows that if you give a computer program a series of instructions in code, it will carry out those instructions in the most efficient manner possible. Couple that with machine learning and voila, you have a recipe for disaster ending with humanity battling against robots for the survival of the human race. Not everyone shares Mr. Musk’s pessimistic outlook on the future of A.I. though. Mark Zuckerberg, the founder of Facebook has called his warnings “pretty irresponsible”.

Like it or not, machine learning is here to stay and its revolutionizing everything from data security to smart cars. Currently, it is responsible for saving lives in the healthcare field. One of the main things it’s being used for in healthcare is patient diagnosis and treatment. For instance, computer aided diagnosis or CAD helps radiologists find early-stage breast cancers. Early detection of cancer is obviously vital in the healthcare field. It’s being used to help doctors do their job more efficiently.

Companies like Amazon and Netflix use machine learning to analyze your activity to figure out what you might want to purchase or watch on television. Google’s search engine uses it to give you the best search results; and it’s only getting better since it’s able to learn from its mistakes. The U.S. military is using it to help its unmanned ground vehicles learn from their mistakes to maneuver better. Now that the military is using it, it seems like it will only be a matter of time before these machines that we’ve built and equipped with this technology will wipe us out!

Sources:

Bernard, Marr. "The Top 10 AI and Machine Learning Use Cases Everyone Should Know About." *Forbes*. 30 September 2016.  
   
<https://www.forbes.com/sites/bernardmarr/2016/09/30/what-are-the-top-10-use-cases-for-machine-learning-and-ai/#4439083394c9>.

Accessed 30 Aug 2017.

Puneet Gupta. "Machine Learning: The Future of Healthcare." *Harvard Science Review.* 16 May 2017.  
   
<https://harvardsciencereview.com/2017/05/16/machine-learning-the-future-of-healthcare/>.

Accessed 30 Aug 2017.

Keller John. "Army considers artificial intelligence and machine learning for unmanned ground vehicles (UGVs)." *Military & Aerospace.*  6 June 2014.  
   
<http://www.militaryaerospace.com/articles/2014/06/ugv-artificial-intelligence.html>. Accessed 30 Aug 2017.

Unknown. "Arthur Samuel." *Wikipedia.*  9 July 2017.  
   
<https://en.wikipedia.org/wiki/Arthur_Samuel>

Accessed 30 Aug 2017.

Video. "Elon Musk: Artificial Intelligence Could Wipe Out Humanity." *Youtube.*  8 October 2014,  
   
<https://www.youtube.com/watch?v=Ze0_1vczikA>

Accessed 30 Aug 2017.

Clifford, Catherine. "Facebook CEO Mark Zuckerberg: Elon Musk’s doomsday AI predictions are pretty irresponsible." *CNBC.*  24 July 2017.  
   
<https://www.cnbc.com/2017/07/24/mark-zuckerberg-elon-musks-doomsday-ai-predictions-are-irresponsible.html>

Accessed 30 Aug 2017.