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Accounting for Bias in Machine Learning Algorithms

When the topic of machine intelligence first arose, there were many debates that followed on the possibility of such a thing and whether humans are morally allowed to create intelligence. There were always moral and philosophical questions involved in machine learning. These discussions were had back in the 1950s and those days are long gone. Now the rate at which technology is developing is tremendous.

At this point in time, machine learning is so integrated into our lives that it is easy to miss at times. Machine learning is used by businesses and governments alike. It is present when you are recommended the next video to watch on YouTube, it is present when you are shopping on Amazon and products are recommended to you, it is present when your photos are grouped together based on the facial recognition of the people in the photo, and it is present while people are searching for the best traffic route. It is used for identifying medical conditions, for transcribing audio to text in voicemails, and even in online translations.

Now the focus is on self-driving cars, on the next biggest thing, in how we can take technology farther. Machine learning allows for improvements in businesses, healthcare, and in the quality of life. However, with how integrated machine learning and AI has become in our lives there are some questions we must ask. We must identify the downfalls of this technology so that we can be able to improve it. The people working on this technology are thinking of how to advance technologically, they are thinking of the formulas and the science behind this. But are they asking the ethical questions? Are they making sure that training data for software is inclusive and accurate? Are the companies and law systems that implement these technologies aware of what exactly it is that they are using? By analyzing the origins of machine learning, understanding machine learning and the way it functions, and looking at potential issues and examples of bias, we can begin to understand the complete picture of why it is that bias can be present in machine learning algorithms and why this bias has significant effects.