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What Are Data Science Ethics?

When handling large amounts of private and sensitive data, such as financials and personally identifiable information, there is a lot of trust put into the handlers. Data scientists and technologists as a whole have an ethical duty to work towards bettering human society. This is incredibly important because they possess the ability to be very destructive. The Association for Computing Machinery has created a code of ethics and professional conduct that I think encapsulates what data science ethics is all about very well.

The first general ethics principle is to contribute to society and to human well-being, acknowledging that all people are stakeholders in computing (<https://www.acm.org/>).

Technology has proven itself time and time again how beneficial it can be to the progression of society. The engine running this car is the people operating and inventing the technologies. From the first computer, the invention of the internet, to self-driving cars and AI systems inside of our homes and phones, the speed at which technology is taking off can very much be attributed to this guideline. As long as they continue to follow it, there are no limits to how far technology can take us.

The second principle is to avoid harm. There is a lot of potential dangers that can come with technology. Obviously, anyone who intentionally causes harm with technology will face intense consequences. However, there are cases where harm has been done with technology unintentionally. In this case, those who have caused the harm have an ethical duty to undo their

harm or mitigate it as much as possible. There is value in documenting what went wrong and how to prevent it from happening again for future reference. However, they must assess the situation and report it meaningfully in a way that won't misguide others. Professionals are expected to follow generally accepted practices as to not cause any harm, unless there is another ethical dilemma that may cause them to stray away from it. This guideline will help prevent the regression of the progress that we as a society have made with technology thus far.

Several more principles include being honest and trustworthy and respecting confidentiality and privacy. As mentioned before, there are a lot of risks and sensitive aspects to working with technology. A data scientist must be trustworthy so that they can do their job reliably for the public. If someone lies about their qualifications, and/or the procedure that they take to handle situations, then that could be detrimental to not only the project, but to the well-being of the client. The same goes for respecting confidentiality and privacy. Unfortunately, there are many malicious people in the world who try to gain access to private information of others so that they may benefit from it. There have been many infamous data breaches in recent history, one of the most well-known ones involving social media giant, Facebook. While this is not completely the fault of Facebook, they have an ethical duty to protect their users and protect their information. Because of this breach, users have felt less safe when using the site.

The hesitance of consumers following security breaches shows that data ethics are not just for the benefit of the general public, but for the companies as well. Without a solid, trustworthy baseline, a company's business will suffer. Data ethics is the driving force behind the progression of technological society and without it, it's possible technology would have never taken off like it did, or even worse, it takes off in a way that is detrimental to human society.

Source: <https://www.acm.org/code-of-ethics#h-1.-general-ethical-principles>