

Ethical Considerations for Data Science

What are some ethical issues that should be considered by leaders at organizations relying on data science?

Our lives are being driven by algorithms in so many ways, even without us realizing. There is tremendous potential for our lives to be streamed in directions that don't respect our agency, if data about us is incorrect, biased, or taken from us without permission. Ensuring that technologies are transparent, accountable, and minimally biased is key to developing trusted systems that the public feel they can rely upon, and a crucial factor in building a valuable company brand that can sustainably stay on the right side of the law.

How can data be collected or used in a way that doesn't respect our agency?

For example, data might be collected from sources we didn't intend, such as an app gathering up data copied in the clipboard. Or, data might be used in a way that we didn't authorize or foresee, such as data on our purchases being sold to a credit scoring agency.

What can organizations do to make sure they collect and use data in a transparent, accountable, and minimally biased way?

Organizations, and the people working within them, must handle data in a responsible manner. Processing of data (such as aggregation, and clean-up of erroneous data) should be handled with care. Collected data should not be massaged, or manipulated in any way, or the interpretation of that data altered from the truth, as best as that can be verified.

It's important to understand the ramifications of certain decisions or efficiencies. Similarly important, applying foresight to preempt potential issues, even those that might arise long after a product is released, or even at its eventual decommissioning.

What kinds of ethical considerations for data science should members of society be focused on?

The public should hold tech companies accountable to make products that preserve the dignity of all in society. We should collate clean data, but without exploiting people to do so. We should harvest data for purposes that create some benefit in kind for the participant, not merely for commercial benefit. We should work to continually set a high standard for these systems, and the organizations behind them. The future of our society, and what it grows to become, depends on it.

What steps can the public take to hold tech companies accountable? What organizations are leading the charge of public accountability?

Public pressure groups such as the Electronic Frontier Foundation have a long history of championing accountability within the technology space. New foundations and institutes related to this area have arisen in recent years, as public concern about the power and influence of technology companies has increased.

From a professional perspective, there are initiatives from the IEEE, ISO, IEC, and others to help create better oversight for organizational accountability, through flexible yet cohesive rules that help to underpin responsibility. Such rules are increasingly important in our modern society which is increasingly intertwined with powerful emerging technologies powered by data and algorithms.