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Data Ethics

**Summary**

Hannah Fry, associate professor in mathematics of cites at University College London, has called for an equivalent of the physician’s Hippocratic oath for mathematicians and computer engineers.[[1]](#footnote-1) She suggests that data science look towards medicine for how ethics is discussed “from day one”. She states that math and computer science fields generally consider ethics an add-on (“bolt-on” in her words) and would like to see the fields fundamentally alter their relationship with ethics in teaching the subjects.

**Key Questions:**

The following questions are relevant:

* What is the current state of ethics in these fields?
* Why is an ethics-centric mindset lacking in data science, math, and computer science?
* Does the Hippocratic Oath actually do anything in medicine?
* What would a Hippocratic Oath for data science look like?

**My Reaction**

In general, I support the premise that for many working in these fields, ethics is a secondary consideration, if it’s considered at all. I attended an event held by two Senators discussing dark patterns this past summer, and one of the experts pointed out that in Silicon Valley, many engineers and programmers adhere to the idea that they “know what you want before you do.” Due to the flashiness of tech, the general public doesn’t often view this mindset for what it effectively is: paternalism. This raises a few points: do they really know what you want before you do, or are they going so far as to prescribe what you want, ala Brave New World? Suppose that tech *can* accurately predict what people want before the people themselves know; does this justify making decisions for people? I do not believe it does, partially because tech has advanced so much that the ability to determine post hoc whether tech appropriately “nudged” people in the right direction is difficult. Constructing double-blind RCTs for such things are a challenge, but any company moving into a space that starts to prescribe behavior, words, products, or similar things needs to undertake such experimental exploration.

As for the current state of ethics in data science, it is difficult for me disentangle the question from my own experience, first as an admissions counselor for the UC Berkeley Master of Information and Data Science degree program, and later as a student in Georgetown’s DSPP program. Both of these programs place ethics pretty central in the curriculum, each with both dedicated ethics courses and ethics peppered throughout the rest of the coursework. Simply due to how recent such programs are, the majority of professional data scientists have not had ethics infused into their education. Computer Science and Math programs are often completely devoid of any notion of ethics or real-world impact of the work done in these fields. Statistics has slightly more emphasis on them, largely due to how much of the field lives in the social science space.

This brings us to the question of a Hippocratic Oath for data scientists. Such an oath would presumably include language related to bias, transparency, accountability, and impacted populations, to name a few. It’s possible that such an oath might help data scientists remind themselves of the various facets of ethics that should be examined in any data science venture. Perhaps better than an oath would be a checklist or handy acronym. In medicine, the introduction of checklists has significantly reduced the number of errors physicians make, so a concise list of considerations could prove vary impactful. However, it’s not entirely clear to me that the Hippocratic Oath itself actually makes any difference in the practice of medicine; it may just be the symbolic representation of how the field generally views ethics. With that line of thinking, a data science oath would be less about the oath itself and more about the discussions surrounding what the oath should be. Regardless, it seems clear that data science *must* continue to move ethics to the center of the conversation, and anything to that end should be taken seriously.

**Conclusion**

Ethics is severely lacking in data science, math, and computer science. However, the introduction of an oath that every data scientist takes as part of their education ultimately misses the mark on fixing the problem. At the same time, a discussion of such an oath *does* create dialogue that moves the needle towards a more ethics-centric mindset in these fields.

1. <https://www.theguardian.com/science/2019/aug/16/mathematicians-need-doctor-style-hippocratic-oath-says-academic-hannah-fry> [↑](#footnote-ref-1)