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FIS494 / Week 13

A theme running through this week's reading is Edwards's feeling that he is doing what he has to do, and lending scientific legitimacy to the citizen scientists and the tension that results from community reports that he is too much of a hero or savior. It seems like what Edwards has now is a great personal burden and a lot of activist fatigue. Moral remainders are used to represent "the tension that can arise between people when one genuine moral concern is addressed while a related one is ignored."

Professor Donna Riley describes this as a moral remainder[1] - what is leftover when part of a problem gets solved. Edwards helped to solve the issue of authorities not believing citizens when they reported that their water was bad for them, but he did not address the issue of why.

This week my difficult question is "how can we address moral remainders before we take action?"

A parallel situation happens in many fields. There are many stories about bias in AI, and here is a good example: Facial recognition cameras were released that [CHECK THIS] recognize white faces but not brown or black faces. The AI powering the camera was created by a white team and tested, primarily, with white datasets. The algorithms reflect the bias of the algorithm's writers. The Edwards-style solution here is to fix the algorithms and to roll out an update for all cameras using this software. Once complete, the moral remainder needs to be addressed. Similar to the Flint case, what is left behind is the unchecked bias of development teams and the white supremacy that is reinforced in technology funding, hiring, and development.

[1] Or, more formally, "a moral requirement that has not been eliminated and retains its normative force" from "Ethical Consistency"

So moral remainders arise when problems are ill-framed?

One possible strategy to address moral remainders is to think expansively about the problems we're addressing. It seems to me as though in conversations about the water crisis in Flint, it was caused by a foolish and short-sighted measure by its leaders under the guise of saving-money. Edwards approached Flint as a situation distinct from the Washington D.C. water crisis, and perhaps distinct from other water crises happening now around the country.

An alternative approach could have been to look at similarities between the cities that are struggling with clean water. A data scientist could paint a picture of the commonalities – lower income, mostly African-American residents, generally under-resourced, etc. With this information as part of the problem set, perhaps a team could have developed a solution that includes this and rather than "fixing the water," they could have created a strategy to "fix the water systems" around the country.

However, it's also possible that, like Dr. Hanna-Attisha said, "The eyes don't see what the mind doesn't know." A team full of scientists might not have made the connection between neighborhood demographics and water supply, and they might not have connected it to another manifestation of America's systemic racism and oppression of people of color. If this is true, then it's a very good case for giving scientists extended training in sociology and the humanities. (Or, if scientists are forced to do Continuing Education Units like other professions, including human-centered units in that training). Without sociological thinking, scientists are putting Band-Aids on superficial wounds, and not acting as part of coalitions to fix greater problems. It seems like as long as scientists focus only on science, there will always be moral remainders.