EVALUATIONS OF AI APPLICATIONS IN HEALTHCARE

WRITTEN BY MILDRED CHO

BEST ETHICAL PRACTICES – MITIGATING CONFLICTS OF INTEREST

In this section, we'll try to answer the question: how do we translate conflict of interest mitigation strategies to the development and deployment of AI for health care? Let's look at each of the three general types of strategies: disclosure, mediation, and recusal.

The principle underlying disclosure is transparency, or facilitating awareness of people who are impacted by AI and who are owed duties of care that other interests exist that could influence this care. For AI, this transparency is complicated by the fact that most of the people who could be impacted, such as patients and providers, are probably not even aware of the existence of AI or how it might be used in decision making about their health care. So first, some public notification of the use of AI may be warranted, especially if the application deviates substantially from commonly understood or accepted uses of data in the health care context, or if the AI or data use poses more than usual risks or be especially sensitive. Examples might be using and storing video data from telehealth visits, or collecting and analyzing patients' social media data to predict or diagnose mental health conditions, or using EHR, sensor and claims data to guide decisions about offering palliative care at the end of life. This notification could also include disclosure of how AI is used in decision-making about patient care and who developed the AI system.

Other ways of implementing the principle of transparency include thorough reporting of how models were built, as suggested by members of the data science community. This includes clear descriptions of data sources, participants, outcomes and predictors, the contexts in which the model was validated, limitations and contraindications for deployment and assumptions or conditions that must be satisfied. The Association of Computing Machinery has also recommended that for facial recognition technologies, or other uses of AI where racial or other biases are of concern, that error rates be reported disaggregated by race, gender and other context-dependent demographic features.

The principle behind the strategy of mediation is independent review or oversight. For AI development, this could be achieved by auditing of algorithms and models by third parties. This process was suggested by the Obama administration in 2016 to mitigate discriminatory practices and

civil rights violations. Employing algorithmic audits also enhances transparency to the extent that it encourages developers to make algorithms auditable in the first place.

The strategy of recusal in the context of AI development is difficult to implement. If AI development is being conducted in an academic research setting, it might be possible for the developers to recuse themselves of financial interests, or replace people with financial interests with others who are more independent. However, in a corporate setting, that might be impossible, so developers would have to rely on disclosure or mediation-based strategies, keeping in mind that disclosure-based strategies are very weak and do little to engender or maintain trust of key stakeholders.

The takeaway points here are that:

- Best ethical practices in developing AI for health care include careful formulation of the problem to be solved, ideally with input from people who have deep knowledge of the specific clinical settings and data relevant to the problem.
- Conflicting interests can have real impacts on design decisions, but there are strategies to mitigate the potential negative effects of conflicts of interests.