ALGORITHMIC FAIRNESS: ENCOURAGING EXCLUSIONARY DIVERSITY

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1) Background

With the recent rise in the number of applications in and power given to Artificial Intelligence technology, many groups of people are effected in many unfair ways. Although there are multiple ways to measure fairness, the question needs to be asked: are the fairness fairness metrics themselves fair?

Demographic Parity

$$P(Ŷ=1 \mid A=a)=P(Ŷ=1 \mid A=b)$$

Demographic parity is an algorithmic fairness metric that ensures independence of sensitive features, requiring that the probability of being given a positive result is the same across groups. We will use Ruf and Detyniecki's (2021) Fairness Compass as a basis to determine when it is generally acceptable as a metric.

Spivak's Theory of *Subaltern*

Spivak's (1988) essay *Can the Subaltern speak?* higlights the issue of representation among the *subaltern*, subset of oppressed, colonized people who cannot speak, or express themselves properly, in a mainstream arena. This essay shapes some of what is modernday Postcolonialism.

Pluriversality

Originating from the Global South, Pluriversality presents itself as a way of incorporating multiple perspectives in a non-desctructive way (Vasconcelos and Martin 2019).

2) Our Research

We aim to critique modern algorithmic fairness methods and propose a tentative approach for the use of AI in socially relevant situations.

Research Questions

1) According to Spivak's Theory of the Subaltern and Pluriversality, which groups (knowledges) are disregarded when Demographic Parity is satisfied, and how are they excluded?

3) Approach

Steps

1. Find cases in which demographic parity is the preferred fairness metric
2. Using Spivak's Theory of the *subaltern*, define what it would mean to be *subaltern in algorithmic fairness*
3. Examine whether demographic parity applications can alleviate or exacerbate subalternity
4. Discuss themes

5) Findings and defintions

Subaltern in Algorithmic Fairness:

1. Marginalization
2. Lack of Voice
3. Outside of Cultural Hegemony

Themes

- Superficial approach to fairness
- Price on lives?
  - Hypervisibility
- Voice
  - Control through data
  - "Representation" through data

5) Conclusion

Demographic parity makes assumptions that make it ill suited to govern socially relevant and complex situations. The simple outcome of "treat everyone equally" is does not combat systemic issues, and often times may exacerbate them. Determine whether the situation is socially relevant and consider not using AI. Postcolonial-led inclusive AI is relevant future work.

References

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