No Walk in the Park: The Viability and Fairness of Social Media Analysis for Parks and Recreational Policy Making

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In this paper we present a study and assessment of using social media data for the decision-making tasks. Specifically focusing on the Parks and Recreations we investigate the following research questions:

- Can we rely on social media posts to design equitable and inclusive policies?
- What type of biases do the machine learning algorithms cause in analyzing the social media images and how can we mitigate those biases?

Our results demonstrate the trade-off between utility and fairness (measured as Equal Opportunity). We can see that there is potential for managers to apply the methods used in our study to estimate visitation ±2, with recall of 70%, while remaining fair and inclusive in terms of age and race.