Paper: Investigating Gender and Racial Biases in DALL-E Mini Images ACM 2024

One sentence summary: Investigation of gender and racial biases in the images generated by DALL-E Mini, revealing a tendency to disproportionately depict certain occupations as associated with White individuals and reinforce gender stereotypes.

Criticism: Authors claim that there are significant discrepancies between real-world labor demographics and DALL-E Mini-generated depictions. The analysis is based on U.S. Bureau of Labor Statistics data, but DALL-E Mini's training dataset originates from the global internet, which might not align with U.S. labor demographics.

Planned Implementation: Search online for global statistics, e.g. from International Labour Organization, and compare data/statistics against the DALL-E Mini generated data to investigate if bias is present (more global evaluation). Additionally, another DALL-E-based model (bing Image Creator) could be tested for the occupations used in the paper to see how larger/better models behave in terms of gender bias (comparison against US and global data).

Possible improvements could be:

- discussion on how biases differ across regions and how it impacts model fairness
- Customized prompts to set a focus for the generated output, like settings for cultural or demographic focus (testing if it works for model?)