The topic I selected was bias in algorithms. I liked the topic since I want to do that type of programming in my career. I have also read about this type of bias. There seems to be no inherent solution other than selecting data very strictly and hardcoding to offset this bias.

The first major stakeholder is customers of the platform. Twitter alone has millions of users that could be affected by bias in algorithms. There also many other platforms such as Facebook that use algorithms that directly impact user’s news feeds.

The obvious impact is that the cropping from Twitter will select white people and therefore will portray white people more than people of color. In society this would have a lot of impact to the many twitter users and their image of people. Secondarily, this would hurt users by making the technology less usable for people of color in general. The third major impact is these biases can have a negative feedback loop. The less these are used for people of color for example, the less it will be used, and the bias will adjust even more to leave them out.

The second stakeholder is the companies and platforms engaged with these biased machine learning algorithms. There many of these companies out there, some are very popular and attract many users. Whatever these biases might entail, they could have a large impact on the population, business and culture.

The first major impact for the companies involved is the social backlash. They are widely used and when people notice there a huge problem for this company. People might start to boycott or give negative reviews. The second major impact is the business itself. Business that does not cater to everyone is bad for these companies that try to target all audiences. The third is the bias in the algorithm itself, these algorithms are very useful and make life a lot easier at this company and affects how the business is run, if they cannot use the algorithm, then they have to come up with alternative/harder solutions.

The third major stakeholders are the employees at the company that code these algorithms. They are the ones implementing these biased algorithms and training them.

These employees will face a large backlash from the company and users as a major impact. We are assuming they are trying their best not to implement bias into the algorithm. Another major impact with the employees is coding to avoid bias. This coding is not easy since you need to use human judgement to correct the bias which is hard to judge in any situation. The last impact on the employees is social standing and how they feel working at these companies doing this work. Coding such algorithms that have such an impact on society must have a major impact in their lives.

The broad ethical concern is discriminating against people of color and minorities in general. This bias described in the article occurs on the twitter cropping feature. It crops out minorities regularly and prioritizes Caucasians. The algorithm that does this inherently does this which means millions of people using twitter are prone to using this. That means that minorities are being left out in images all over the internet and changes the image of our society to exclude these people.

In the ACM code of ethics, the fourth point is, “Be fair and take action not to discriminate.” This is clearly being violated here as minorities are being left out of images when cropped or not being prioritized. The programmers that program this algorithm would have to keep this in mind when testing out their new applications and check if it has any racial bias before putting it into production.

I think that this bias is sometimes unavoidable when dealing with purely programming these algorithms. I find the backlash that these companies get is too much. There is no way to account for all of these things until you actually give it to a lot of people to test out. As long as the company changes their algorithm as soon as they find out that there is a problem with it, I think its fine.

The first counter argument would be that these companies should know better and should have more control on what they release. Technically that is correct, but even in large companies these types of algorithms are tough to test. There is no way how you know it works until it is put into use.

The second argument is that these algorithms should not be used. They are too dangerous, and we can see the consequences if left unchecked. To counter this, it would be impossible to do all the tasks these algorithms do on a daily basis and consistently. Humans are probably more prone to error than these algorithms. A human making these decisions an algorithm makes is probably more biased than an algorithm in some ways.