

# AI4Business – Bias in AI

This assignment is meant to start a panel discussion on the topic of bias in AI systems. Start by watching the following two short TED talks on bias in AI:

- How to keep human bias out of AI | Kriti Sharma | 12min video on [YouTube](#)
- How I'm fighting bias in algorithms | Joy Buolamwini | 9min video on [YouTube](#)

We encourage teamwork for this assignment. Start with reflecting about all these aspects by yourself and then discuss together with your teammates. This allows you to form opinions from your own perspective and afterwards multiple visions can be merged. Try to form diverse groups to allow for many different viewpoints during the discussion.

## Questions

Below we list some question to reflect upon and discuss with your teammates.

**Bias is all about fairness, but how would you define fairness in AI solutions?**

**Did you ever encounter AI bias either personally or within your company workflow?**

**Where you aware of the possible bias problem in the decisions of AI systems?**

**Will fairness and bias impede AI evolution (in your business sector) or not?**

**Do you think that business leaders should care about AI bias? Why or why not?**

**Do you see possible bias problems arise with AI applications within your company?**

**Which reasons for possible bias in your AI systems can you think of?**

**Are you actively fighting or monitoring bias in your current AI solutions? Or planning to?**

**Which possible approaches do you see to reduce the AI bias in your solutions?**

**Do you have diverse AI teams where multiple views of the world come together?**

## Food for thought

When talking about fairness, we should make the distinction between equality and equity:

- Equality: treating everybody the same (give the same amount or help to each)
- Equity: give everybody equal access to the same opportunity (amount they need)

Equity considers that not everyone starts from the same place and levels the playing field.

Here we list some possible reasons for bias in AI systems:

1. Lack of diversity in your data and/or AI team  
Insufficient diversity in data leads to certain demographics being underrepresented. A diverse team allows for multiple viewpoints and to spot possible bias much faster.
2. Human bias in historical data  
AI algorithms transfer (un)conscious human bias in their decisions via historical data. Furthermore, values change as time evolves, what is fair today might be biased soon.
3. Fairness is hard to define and comes at a cost  
It is not easy to put an exact definition on fairness, both in words and mathematics. Enforcing a fairness constraint leads to less optimal results for profits, revenue, etc.
4. De-biasing data and AI models is hard  
Known biases can be monitored in your data, but unknown ones are hard to spot. AI models are complex with many parameters that influence the eventual decision.
5. Strict privacy regulations (e.g., GDPR) impede thorough audits by external parties.

The new development of synthetic data is a promising approach to deal with data bias. Synthetic data represent a fair and completely realistic view of your original data, leading to unbiased AI decisions. They are also completely anonymous, allowing the AI to be audited.

It is important to address these issues timely as bias in AI will reinforce more bias in AI. Regulation and the general society will play a major role in this demand for fairness in AI. The education system can also help by making AI programs more attractive and inclusive.

Always be aware of this bias problem and take it into account in your ethical AI solutions!

