

Value Cards

Model Cards

8 Models 1 Model Overview

Persona Cards

Judge Defendants Fairness Advocate Community Member

Checklist Card

Understanding Societal Values in AI Identifying Stakeholders Analyzing Impacts

Accuracy

Over all: 68.4%

White American: 71.3%

African American: 65.5%

Disparity

Disparity in Accuracy: 5.8%

Disparity in FPR: 6.1%

Disparity in FNR: 14.9%

False Positive Rate

Over all: 8.0%

White American: 5.2%

African American: 11.3%

False Negative Rate

Over all: 74.6%

White American: 83.2%

African American: 68.3%

Model Number: 2

Accuracy

Over all: 60.0%

White American: 60.0%

African American: 60.0%

Disparity

Disparity in Accuracy: 0%

Disparity in FPR: 6.4%

Disparity in FNR: 9.2%

False Positive Rate

Over all: 45.5%

White American: 42.1%

African American: 49.5%

False Negative Rate

Over all: 29.8%

White American: 35.1%

African American: 25.9%

Accuracy

Over all: 70.4%

White American: 72.9%

African American: 68.0%

Disparity

Disparity in Accuracy: 4.9%

Disparity in FPR: 7%

Disparity in FNR: 9%

False Positive Rate

Over all: 10.1%

White American: 5.7%

African American: 15.1%

False Negative Rate

Over all: 65.2%

White American: 77.1%

African American: 56.5%

Model Number: 4

Accuracy

Over all: 64.1%

White American: 65.2%

African American: 63.1%

Disparity

Disparity in Accuracy: 2.1%

Disparity in FPR: 6.7%

Disparity in FNR: 9.8%

False Positive Rate

Over all: 31.9%

White American:28.9%

African American: 35.6%

False Negative Rate

Over all: 42.8%

White American: 48.5%

African American: 38.7%

Accuracy

Over all: 66.7%

White American: 70.6%

African American: 62.7%

Disparity

Disparity in Accuracy: 7.9%

Disparity in FPR: 2.6%

Disparity in FNR: 9.8%

False Positive Rate

Over all: 1.9%

White American: 0.8%

African American: 3.4%

False Negative Rate

Over all: 90.5%

White American: 96.2%

African American: 86.4%

Model Number: 6

Accuracy

Over all: 67.6%

White American: 69.9%

African American: 65.2%

Disparity

Disparity in Accuracy: 4.7%

Disparity in FPR: 18.0%

Disparity in FNR: 23.2%

False Positive Rate

Over all: 30.6%

White American: 21.9%

African American: 40.8%

False Negative Rate

Over all: 35.6%

White American: 49.0%

African American: 25.8%

Accuracy

Over all: 69.1%

White American: 72.6%

African American: 65.4%

Disparity

Disparity in Accuracy: 7.2%

Disparity in FPR: 6.9%

Disparity in FNR: 15.1%

False Positive Rate

Over all: 4.7%

White American: 1.5%

African American: 8.4%

False Negative Rate

Over all: 78.7%

White American: 87.4%

African American: 72.3%

Model Number: 8

Accuracy

Over all: 60%

White American: 60.8%

African American: 57.3%

Disparity

Disparity in Accuracy: 3.5%

Disparity in FPR: 19.4%

Disparity in FNR: 14.6%

False Positive Rate

Over all: 53.5%

White American: 44.6%

African American: 64%

False Negative Rate

Over all: 18%

White American: 26.6%

African American: 12%

Attribu Model	Accuracy	FPR	FNR	Dis/Acc	Dis/FPR	Dis/FNR
1	*					
2	×	×	☆	☆		
3	\Rightarrow					
4				☆		
5		\Rightarrow	×		☆	
6					×	×
7	*	\Rightarrow	*			
8	×	×	☆	☆	×	

Accuracy Range: 43% - 71%

FNR Range: 3.4% - 94%

FPR Range: 1% - 87%



performs relatively badly



performs relatively well

Disclaimer: The performances are evaluated among the models, and only serve as a subjective reference. Please always refer to the model cards for model details.

Persona: Judge

As a judge, you care most about making the right decision when sentencing a defendant. You probably want the model to have a higher accuracy.

Persona: Defendants

As a defendant, you are most worried about being falsely predicted as "will offend again." In this case, you probably want the model to have a **lower false positive rate**.

Persona: Fairness Advocate

As a fairness advocate, you want to prevent the unfair treatment on some demographic. You don't want the recidivism algorithm to be biased against one demographic. In this case, you want the model to have a **lower disparity**.

Persona: Community Member

As a community member, you want your neighborhood to be safe. You are concerned about re-offending behavior in your community. In this case, you may care mostly about **false negative rate**.

Checklists

1. Understanding societal values in Al

- There is no single definition of societal values that will apply equally well to different applications of AI.
- Prioritizing one value in AI systems often means making tradeoffs on competing values. It is therefore important to be explicit and transparent about priorities and assumptions.
- There are seldom clear-cut answers. It is therefore important to document your processes and considerations (including priorities and tradeoffs).

Checklists

2. Identifying stakeholders

- Who is at risk of experiencing impacts: considering both the people who will use the system and the people who will be directly or indirectly affected by the system, either by choice or not.
- People often belong to overlapping groups—different combinations of race, gender, and age, for example—and specific intersectional groups may be at greatest risk of experiencing different types of harm.
- What are the tradeoffs between expected benefits and potential harms for identified stakeholder groups?

Checklists

3. Analyzing impacts

- What are the <u>types of impact</u> (e.g., allocation, quality of service, stereotyping, denigration, over- or underrepresentation) on different stakeholders
- o Rate the <u>degree</u> of impact [no discernable minor moderate major]
- o Estimate the scale of impact [small medium large]
- Estimate the <u>overall direction</u> of impact [positive mostly positive mostly negative negative]