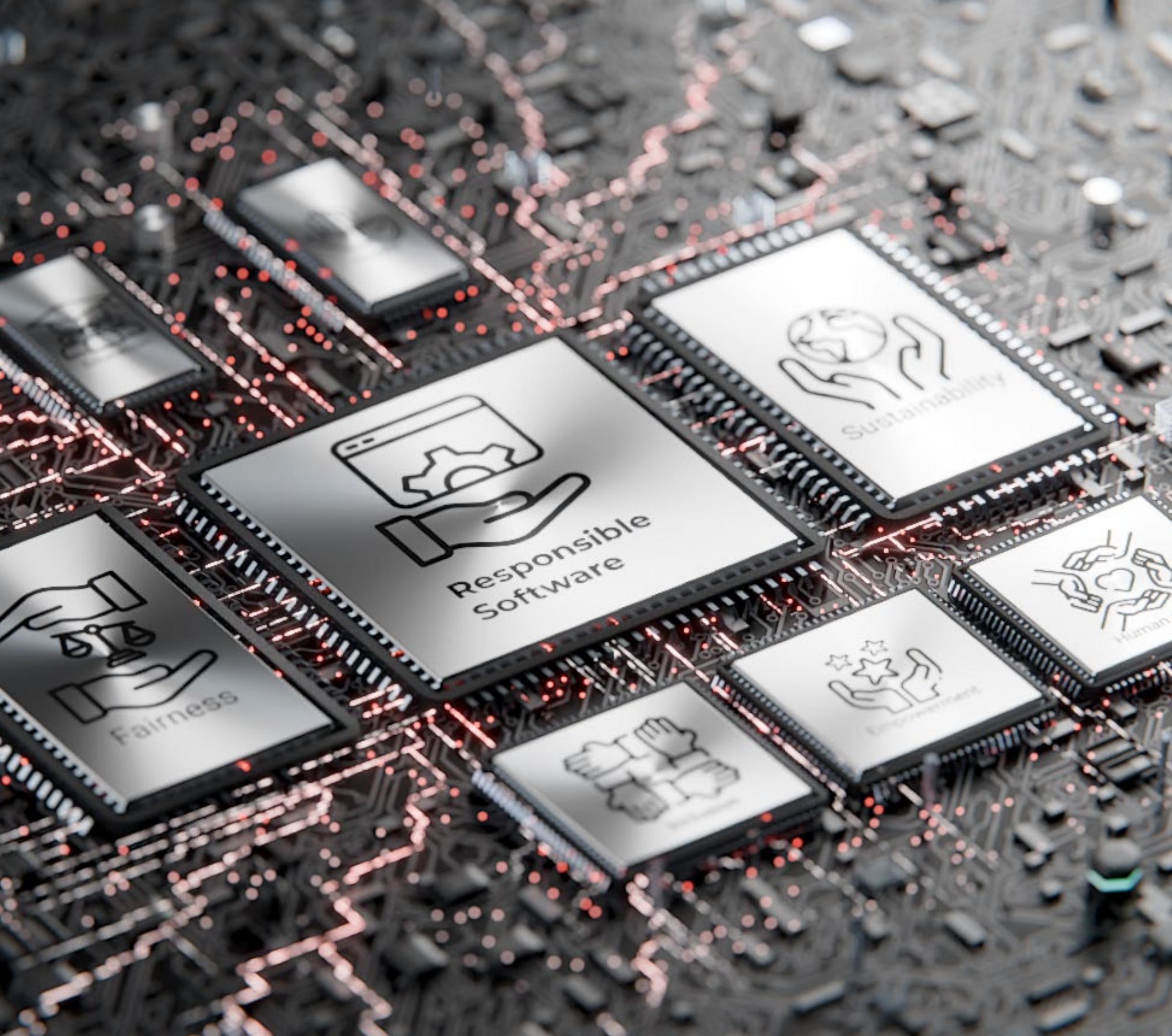


EPFL

**Conclusion
Case studies
+ Q&A
10 dec.**

Cécile Hardebolle

**Responsible
Software**



Ethical sensitivity refers to a person's... (select 1 answer)

- a. ... willingness to acknowledge their mistakes
- b. ... capability to understand the impact of a situation on others
- c. ... ability to act to benefit others even at their own expense
- d. ... ability to enforce ethical values in a team

An ethical dilemma is a situation where... (select 1 answer)

- a. ... there is a solution that is better than the others
- b. ... it is possible to find an ethical compromise
- c. ... a good trade-off between solutions is possible
- d. ... all solutions conflict with an ethical value

The software of an autonomous car fails to recognize traffic signs correctly.

We are in the presence of (select all that apply):

- a. A safety threat
- b. A security threat
- c. A safety hazard
- d. A security hazard

The “confusing” matrix

URL: tppoll.eu
Session ID: cs290

We use software to detect fissures in concrete walls before they become visible to the naked eye.
A positive result means presence of fissure.

Select all the correct statements:

- a. TN = actual absence of fissure, correct prediction
- b. TP = actual absence of fissure, correct prediction
- c. FN = actual presence of fissure, incorrect prediction
- d. FP = actual presence of fissure, incorrect prediction

Disinformation

URL: tppoll.eu
Session ID: cs290

A piece of information is false but created without intention to harm.
It is (select all that apply):

- a. Misinformation
- b. Disinformation
- c. Malinformation
- d. Fake news

False beliefs

URL: ttpoll.eu
Session ID: cs290

If you are exposed to a dis/mis-information post by Melon Husk, you are more likely to believe it because of (select 1 answer):

- a. System 2
- b. False consensus
- c. Source cues
- d. Illusory truth

Attributes

URL: tppoll.eu
Session ID: cs290

Hair color as an attribute to represent people is:
(select all that apply)

- a. A sensitive attribute
- b. An observed variable
- c. A latent variable
- d. An objective representation of people
- e. A subjective representation of people

The city of Lozhann decides to deploy a smartphone app that allows residents to report potholes throughout the city to help with the identification of repair needs.

The data collected by the app will probably exhibit:
(select all that apply)

- a. Preexisting bias
- b. Confirmation bias
- c. Representation bias
- d. Measurement bias
- e. Automation bias



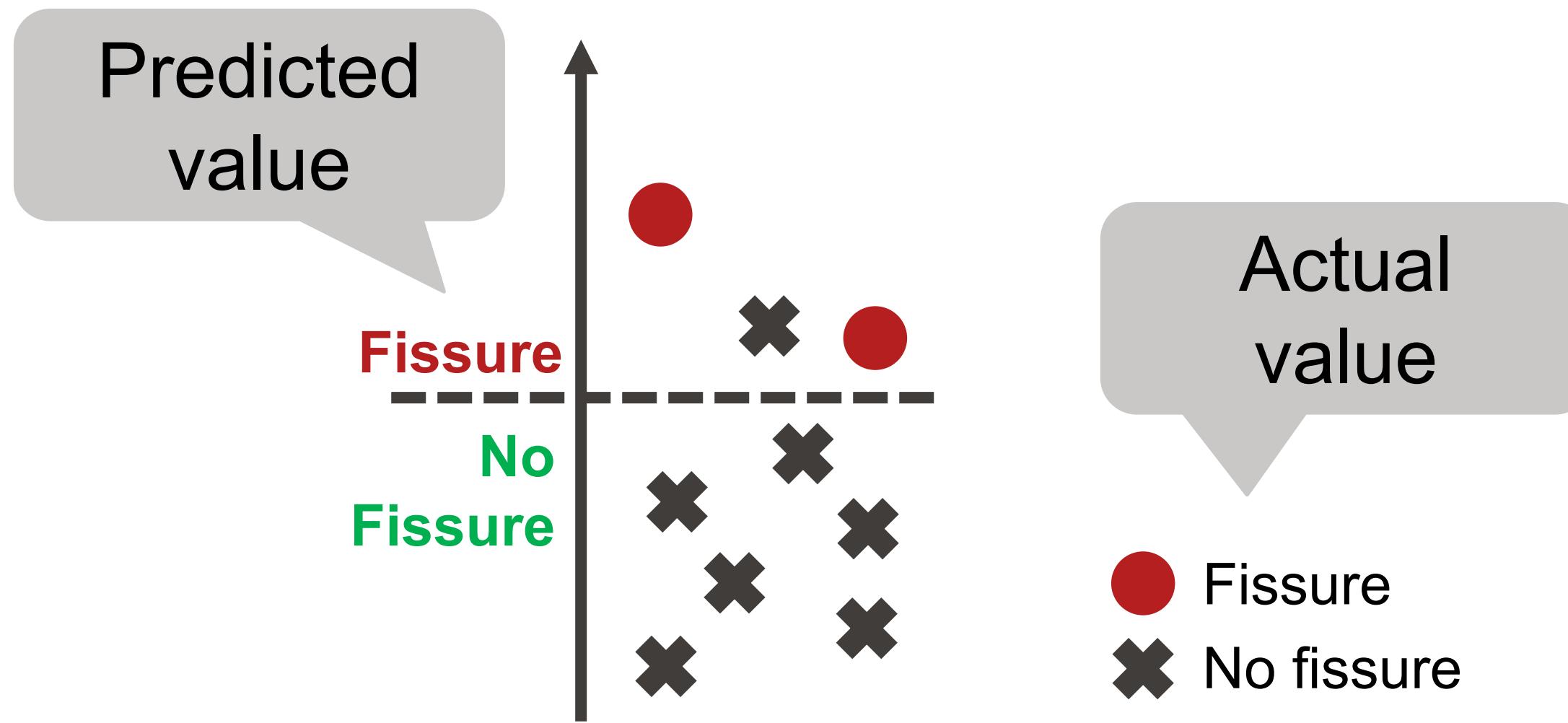
The society RetailProtect develops a ML model to identify instances of shoplifting in retail shops. They evaluate their model on a benchmark in which actors from diverse ethnicities simulate a range of shoplifting actions.

This is a case of (select 1 answer):

- a. Evaluation bias
- b. Aggregation bias
- c. Optimization bias
- d. Deployment bias

Fairness metrics

The company SuperCrack has developed a model to detect fissures in concrete before they become visible. They evaluate their model against a benchmark. The results look like this:



		Predicted	
		Fissure	No Fissure
Actual	Fissure	2	0
	No Fissure	1	6

Fairness metrics

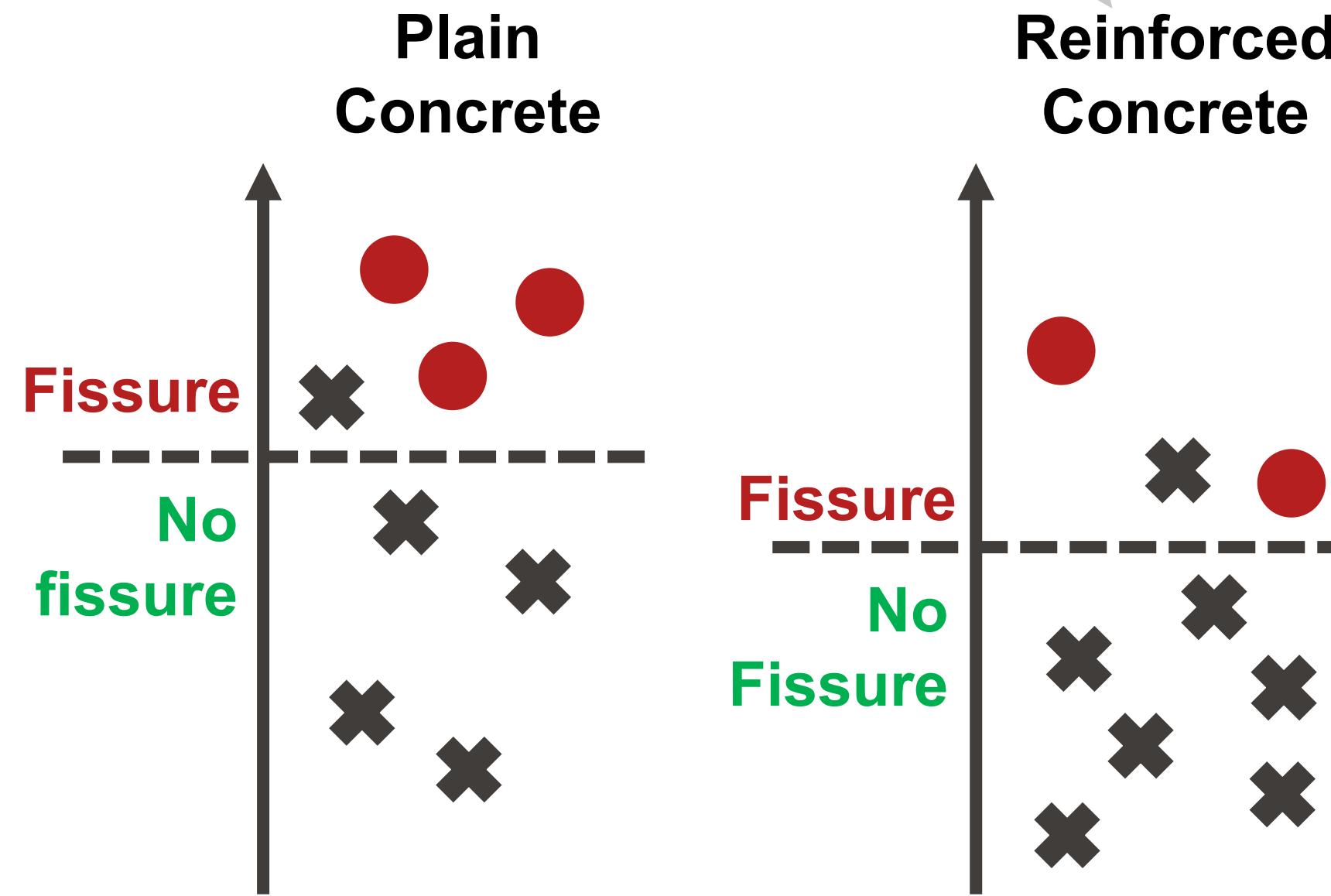
New question

URL: ttpoll.eu
Session ID: cs290

They want to know whether their model performs equally well for plain concrete and for reinforced concrete. Here are the results:

Metric = 1 / 5

Metric = 1 / 7



Which metric are they using? (select 1 answer)

- a. Accuracy
- b. FNR
- c. FPR
- d. Positive prediction rate

Power Usage Effectiveness

URL: ttpoll.eu
Session ID: cs290

The GreenDC datacenter consumes an average of 1 MW.
This means annually a total of 8 760 MWh of electricity.
50% of this electricity is used to power the IT equipment.
What is the PUE of GreenDC?

- a. 0.5
- b. 1
- c. 1.5
- d. 2

The causes of water consumption from a datacenter which are included in the metric WUE_{source} are (select all that apply):

- a. Material mining
- b. Hardware manufacturing
- c. Concrete production
- d. Electricity production
- e. Cooling

Which of the following are examples of digital (software) nudges?
(select all that apply)

- a. Automatic redirection to another website.
- b. Automatic newsletter subscription as stated in usage policy.
- c. Default value in online form
- d. Notice about strictly necessary cookies
- e. Notice about the behavior of other people

Translation

URL: ttpoll.eu
Session ID: cs290

Consider the following translation. What is the issue here?

French	English (American)	Glossary
<p>Dans un souci de durabilité, la recherche d'itinéraire dans Noodle Maps renvoie désormais 2 options d'itinéraire dans l'ordre suivant :</p> <p>1) l'itinéraire consommant le moins de carburant mais le plus long</p> <p>2) l'itinéraire le plus court mais consommant plus de carburant</p>	<p>In the interests of sustainability, the route search in Noodle Maps now returns 2 route options in the following order:</p> <p>1) the most fuel-efficient but longest route</p> <p>2) the shortest but most fuel-efficient route</p>	

- a. Parity error
- b. Factuality error
- c. Measurement error
- d. Faithfulness error