

Mapping the Issue: Using Machine Learning for University Admission

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Course:

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Goal: To formulate guidelines for a bias-aware admission procedure, for academia, using artificial-intelligence.

Method: A qualitative review of the admission process, drawing from Socio-Technical methodologies.

1 Is there a problem at all?

★ University of Texas, USA, 2013-2020:

“Using AI to determine which researchers to **recruit**”



The system, called GRADE, only exacerbated **existing bias** in the system.

★ UK during Covid-19, 2020:

“No school? Let’s **predict** grades using AI.”



Grades were **biased**,
based on the school which students came from, rather
than being derived from their own achievements.

2

The ideal admission process:



3

Value Sensitive Design Methodology

Recommendations for integrating AI in admission- an iterative process:

Conceptual investigation

Stakeholders:

- Applicants
- Admission staff
- Administration

Values:

- Fairness
- Transparency
- Scientific progress

Empirical investigation

Iteratively **engage** with stakeholders, **review** system versions.

Technical investigation

Which solution best solves the **technical** problem, while adhering to the **social** values?