#### PRE-ANALYSIS PLAN

AI at the Gates: Public Support for Technology-Driven Migration Governance  ${\it Olgahan}~{\it Cat}^{~1}$ 

### 1 Introduction

In 2023, Harvard's Immigration and Refugee Clinical Program sued the U.S. government, demanding transparency about the use of AI and automated tools in asylum decisions. Their concern was that such tools—often developed and deployed without public oversight—may embed biases, lack due process, and undermine fairness for vulnerable asylum seekers. As governments increasingly explore digital and algorithmic systems to handle growing migration caseloads, questions arise not only about these systems' technical efficacy but also about how the public perceives their legitimacy.

This study asks: How does the use of artificial intelligence in asylum adjudication affect public perceptions of procedural fairness and asylum seeker deservingness? Specifically, we examine how respondents evaluate the fairness of government use of opaque AI systems in asylum claim processing, and whether they view asylum seekers less favorably when those applicants rely on AI tools instead of human legal representation.

The project contributes to ongoing debates on forced migration, bureaucratic legitimacy, and the ethics of automated governance. While previous research has explored public attitudes toward immigrants' characteristics and asylum criteria, this study introduces the role of technological mediation as a key factor shaping public evaluations—especially in contexts involving limited legal resources.

# 2 Hypotheses and Theoretical Motivation

Public evaluations of policy processes are shaped not only by outcomes but also by perceptions of fairness, transparency, and institutional trust. In the context of forced migration, citizens often weigh both humanitarian and procedural considerations when forming opinions about asylum seekers and the systems that evaluate them. Recent work in political science and public administration shows that **technocratic** and automated governance can reduce perceived legitimacy, especially when opacity or lack of recourse undermines procedural justice.

<sup>&</sup>lt;sup>1</sup>Visiting Assistant Professor, Department of Political Science, Brown University

At the same time, research on **deservingness heuristics** in the welfare and immigration domains suggests that the tools and resources used by claimants affect how the public judges their motives and worthiness. Technological mediation—especially through AI—may evoke concerns that applicants are "gaming" the system or receiving substandard justice, further eroding perceived legitimacy.

Building on these literatures, we first expect that the very use of opaque AI systems in place of human officials will undermine confidence in the asylum process. Prior work suggests that automated decisions, especially those shrouded in secrecy, are viewed as less accountable and less capable of considering individual nuance. Thus:

 $\mathbf{H_1}$ : Respondents will perceive asylum decisions as less procedurally fair when made by an opaque AI system compared to decisions made by human officials.

In addition to evaluating the decision-making system itself, we expect that the public will also judge the applicants based on the means they use to access justice. Applicants who rely on AI tools instead of legal counsel may be viewed with suspicion or seen as less serious. Drawing on literature that shows how perceived effort and conformity to institutional norms shape deservingness judgments, we propose:

**H**<sub>2</sub>: Asylum seekers who rely on AI-based application tools rather than legal aid will be perceived as less deserving of protection.

Finally, we expect the effects of AI use to be moderated by the level of transparency involved. Prior work on algorithmic legitimacy emphasizes that transparency can mitigate some concerns about fairness and bias. If an AI system is described as open-source and contestable, its use may be more acceptable to the public. Therefore:

**H**<sub>3</sub>: The negative effect of AI use on perceived fairness will be stronger when the AI system is opaque than when it is transparent.

Together, these hypotheses test whether technological mediation—particularly when opaque and replacing legal aid—undermines public support for both the asylum system and the applicants who rely on it. The study thus speaks to a broader tension between efficiency and legitimacy in AI-driven governance.

## 3 Study Design

We will conduct a survey experiment using randomized vignettes embedded in an online questionnaire. Each vignette will describe an asylum applicant and the process through which their case is handled. The key experimental manipulations will include: Whether the decision is made by a human adjudicator or an AI system, whether the AI is described as transparent or opaque, and whether the applicant used legal aid or a free AI-based application assistant.

Respondents will read one randomly assigned vignette and then complete outcome measures related to fairness, deservingness, and support for the applicant.

#### 4 Sample

The target population is U.S. adults aged 18 and over. We will recruit approximately 1,600 to 2,000 respondents through an online panel provider such as Prolific or Lucid, using quota sampling to match national benchmarks on age, gender, ideology, and partisanship. The sample size is powered to detect small-to-moderate treatment effects across 6–8 vignette arms.

# 5 Key Variables

The primary independent variables are experimentally manipulated: whether the decision-maker is human or AI, whether the AI is transparent or opaque, and whether the applicant uses legal aid or an AI-based assistant.

The dependent variables include: perceived procedural fairness (measured on a 1–7 Likert scale), perceived deservingness of the applicant (1–7 scale), support for granting asylum (binary or 1–5 scale), and trust in the asylum system (1–5 scale).

Pre-treatment covariates will include general immigration attitudes, familiarity and trust in AI, political ideology, and basic demographics (age, gender, education, income).

# 6 Estimation Strategy

Primary analyses will use ordinary least squares (OLS) regression for continuous outcomes and logistic regression for binary outcomes. The model specification is:

Outcome =  $\alpha + \beta_1 AI_{use} + \beta_2 Transparency + \beta_3 LegalAid + \beta_4 Controls + \epsilon$ 

We will check randomization balance, use robust standard errors, and include interaction terms for theoretically motivated heterogeneity tests.

#### 7 Robustness Checks

We will conduct several robustness checks, including excluding inattentive respondents, re-estimating models with and without covariates, recoding outcomes into binary categories (e.g., fairness 4), and testing whether results hold when the decision outcome is held constant.

## 8 Heterogeneous Effects

We will explore heterogeneous treatment effects by partisanship, political ideology, education level, immigration attitudes, and familiarity with AI. For instance, we expect stronger AI-related skepticism among respondents with high AI distrust or high anti-immigration sentiment.

## 9 Ethics, IRB, and Pre-Registration

This study will soon be submitted for IRB approval at Brown University. The study poses minimal risk and includes a debriefing at the end of the survey. We will pre-register the design and analysis plan on the Open Science Framework (https://osf.io) or EGAP prior to launching the main study.