## Statement Of Academic Purpose Draft: Helen Webley-Brown

As an international student, my first experience in America was having my biometric scan taken at Customs. Noting the increased presence of facial recognition technology and automated decision-making systems in everyday life, I became interested in understanding how emerging technologies influence state-citizen interactions. At MIT, I wish to pursue a PhD in political science, specialising in American politics and computationally-intensive political methodology. I am broadly interested in examining how artificial intelligence (AI) assisted changes to government services impact the political attitudes and behaviour of racial minority populations, particularly in the area of criminal justice.

While researching pretrial electronic monitoring companies, I noticed a lack of transparency regarding how corrections departments select and vet their technology providers. My observation was especially intriguing given that government agencies often rely on external contractors to implement AI and machine learning (ML) tools. This dependency has been noted in the policing context, with existing literature contending that surveillance technology companies have an undue influence over the police departments that contract them.<sup>1</sup> With automated decision-making already integrated into services like public benefit allocations and child risk assessments, and nearly 50% of agency AI use cases involving private contractors,<sup>2</sup> elucidating the impact of technology's influence on state-civilian relations, and democracy more broadly, is of increasing importance. One potential area of focus is how a reliance on contracting and automation may impact accountability mechanisms and public perceptions of state legitimacy. Although there is a wealth of research concerned with the negative impacts of contracting on government financing and transparency, little is known about public attitudes towards outsourcing for technical expertise. My research interests target the significant gap in our empirical understanding of how the government's use of emerging technologies affects trust in its services and its ability to realise public values. I hope to apply computational social science methods to the study of how citizens respond to AI-assisted government services and how state actors are influenced by emerging technologies.

Scholars have recognised a critical need for political science research on the policing of race-class subjugated communities.<sup>3</sup> Enhanced AI/ML capabilities have the potential to reduce police discretionary power while increasing discriminatory state surveillance powers. Indeed, advances in data-driven crime mapping have aided targeted community policing efforts in marginalised communities.<sup>4</sup> This relationship prompts my additional interest in examining how the adoption of "smart" law enforcement tactics impacts racial bias in civilian-police interactions, as well as how civilians evaluate police performance.

In anticipation of the rigour of graduate school, I have engaged with substantive political issues while training in the quantitative and qualitative methodologies best suited to advance our understanding of them. My transcript reflects both my effort and achievement in this endeavour. Most recently, I have excelled in three upper-level classes: Quantitative Political Methodology (QPM), Data Analytics in Python, and Applied Statistical Analysis with R. Notably, as one of the class's top performers, I served as a QPM teaching assistant the following spring. I enjoyed helping my students master the materials and hope to continue growing as an educator. By providing an intensive introduction to programming, causal inference, and the statistical core of data science and research design, my classes have also honed my coding and quantitative skills. Next semester, I plan to bolster my mathematical

<sup>&</sup>lt;sup>1</sup> Joh, E. (2017). The Undue Influence of Surveillance Technology Companies on Policing. N.Y.U. L. Review Online 91, 101. http://dx.doi.org/10.2139/ssrn.2924620

<sup>&</sup>lt;sup>2</sup> Engstrom, D. F., Ho, D. E., Sharkey, C. M., & Cuéllar, M.-F. (2020). Government by Algorithm: Artificial Intelligence in Federal Administrative Agencies. *SSRN Electronic Journal*. <u>https://doi.org/10.2139/ssm.3551505</u>

<sup>&</sup>lt;sup>3</sup> Soss, J., & Weaver, V. (2017). Police Are Our Government: Politics, Political Science, and the Policing of Race–Class Subjugated Communities. *Annual Review of Political Science*, 20(1), 565–591. <u>https://doi.org/10.1146/annurev-polisci-060415-093825</u>

<sup>&</sup>lt;sup>4</sup> Faye S. Taxman & J. Tom McEwen (1994) High-tech computer mapping and low-tech community policing, Journal of Urban Technology, 2:1, 85-103, DOI: <u>10.1080/10630739408724490</u>

foundation through classes in matrix algebra and econometrics. At MIT, I hope to avail myself of the Political Methodology Lab to further develop the research toolkit needed to make credible inferences about fundamental sociopolitical problems.

My decision to pursue a PhD has been greatly informed by my undergraduate research experiences. As a sophomore, I served as a research assistant to Professor Sarah Gaby. To trace whether Professor Gaby's sociology class influenced perceptions of the efficacy of social movements. I administered a survey to 30 undergraduates at the beginning and end of the semester. The laborious yet worthwhile task of performing hand qualitative coding increased my interest in employing computationally-intensive methods for data analysis. This summer, I explored state surveillance and criminal justice politics as a data analysis and research intern with The Bail Project (TBP). I conducted an independent research project, which focused on the impact of pretrial electronic monitoring on TBP's St. Louis-based clients. After collecting qualitative and quantitative data from surveys and interviews, I found that people who had never previously been detained pretrial were more likely to agree that it was fair that they had to pay for their electronic monitor. Spending the summer formulating potential research questions, designing questionnaires, collecting primary data to test hypotheses, and writing a research brief strengthened my independent research capabilities. This semester. I also gained experience in archival research methods by participating in a research lab on the modernist prehistory of facial recognition. Across each experience, finding great thrill in attempting to answer challenging-and under-researchedquestions reinforced my resolve to pursue a PhD. Through graduate training, I aim to further develop the methodological tools and theoretical frameworks needed to produce quantitative research that examines, assesses, and humanises GovTech practices.

While exposure to MIT's curriculum may spark new lines of inquiry, I believe its faculty's strong overlap with my current research interests make it an excellent fit. Adam Berinsky's research on public opinion polling and the sociopolitical factors that shape citizens' attitudes is of great interest to me. Specifically, Berinsky's research on how elites shape opinions concerning war is important for me to consider when examining how state actors might influence public support of AI integration.<sup>5</sup> The opportunity to work with In Song Kim, whose work has quantified the effect of firms' lobbying on economic performance and resource misallocation, is exciting due to my interests in corporate political influence, computational social science, and "Big Data" analysis.<sup>6</sup> Ariel White's intriguing research on the impact of incarceration and experimental challenges to studying street-level bureaucrats is also relevant to my desire to study civilian-police interactions.<sup>7</sup> Additionally, my experience with UAVs and interest in how emerging technologies impact public support for leaders would make me an enthusiastic collaborator and student of Erik Lin-Greenberg. There are also several centers and labs at MIT that are producing research related to my interests. including the Internet Policy Research Initiative, PERL, Sociotechnical Systems Research Center, and POET. I would be honoured to collaborate with, and learn from, these interdisciplinary teams to advance intellectual contributions at the intersection of identity, technology, and political behaviour.

After completing my PhD, I will dedicate my career to academia so that I can conduct rigorous research that advances our understanding of how emerging technologies influence state-civilian interactions. As an aspiring professor, I intend to mentor students from diverse backgrounds to improve representation in the ethical tech pipeline. As an aspiring academic, I

<sup>&</sup>lt;sup>5</sup> Berinsky, A. J. (2007). Assuming the Costs of War: Events, Elites, and American Public Support for Military Conflict. *The Journal of Politics*, 69(4), 975–997. https://doi.org/10.1111/j.1468-2508.2007.00602.x

<sup>&</sup>lt;sup>6</sup> Huneeus, F., & Kim I.S., The Effects of Firms' Lobbying on Resource Misallocation (2018). MIT Political Science Department Research Paper No. 2018-23. <u>https://dx.doi.org/10.2139/ssrn.3275097</u>

<sup>&</sup>lt;sup>7</sup> Nathan, N. L., & White, A. (2021). Experiments on and with Street-Level Bureaucrats. In J. Druckman & D. P. Green (Eds.), *Advances in Experimental Political Science* (1st ed., pp. 509–525). Cambridge University Press. <u>https://doi.org/10.1017/9781108777919.035</u>

intend to hold technology-assisted state actors accountable by examining issues like algorithmic injustice. In the long-term, I hope that using computational tools to study the sociopolitical implications of GovTech will promote more prudent, equitable practices.