

Nayar Prize II Phase II Quarterly Progress Report – July 2018

Project: A Data-Driven Crime Prevention Program

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Progress Summary

Our project concerns the use of predictive risk models (algorithms) to guide the identification of individuals who may benefit from social-services assistance designed to help reduce their risk for involvement in serious crime. In Year 2 of the project, we are evaluating the potential interventions, improving our risk models, and influencing the national debate on the issue of predictive policing. In the third quarter, we have made progress toward each of these goals.

MONITORING, EVALUATING, AND IMPROVING RISK MODELS: We have been working closely with the Elgin Police Department to predict which people are at highest risk of being involved in a serious crime as a victim or a perpetrator in order to offer social services to those individuals in an attempt to avert future crime and victimization. Elgin Police Department officials were surprised to learn that some of the people identified as being at highest risk were not the individuals that officers thought of as hardened criminals, but instead were homeless people. This has led to consideration of the types of social services that might be needed to best help that group.

INFLUENCING THE NATIONAL DEBATE ON THE ISSUE: Based on reviewer comments, we have revised and resubmitted to a peer-reviewed journal our article on appropriate policy guidelines for the use of predictive policing algorithms in the criminal justice system. In the revised article, we analyze the current use of risk prediction and related software tools in the criminal justice system, discuss the scientific and legal issues raised by those predictions, and propose a set of policy guidelines for the use of algorithms to predict an individual's future involvement in crime. We have also been drafting an article about the mathematical calculations involved in the algorithm to contribute to the current scholarly literature and to allow others to build on our experience. In the Spring 2018 semester, Miles Wernick participated as a guest speaker on the subject of this project in an undergraduate class at IIT. In addition, Lori Andrews was a plenary speaker at an international gathering of lawyers and social scientists in Toronto in June 2018, where she additionally participated in sessions on predictive policing. Later in the same month, Lori lectured prosecutors and police officials from

Barbados, the Czech Republic, Hong Kong, Mexico, and Nigeria about the Nayar-funded crime prevention intervention project.

A SPECIAL NOTE: David Haro Alonso received his Ph.D. from IIT in May 2018 based in part on his research for this project. His dissertation was titled “Individual-Based Risk Models for Crime Prevention and Medical Prognosis.” For his dissertation, David studied risk-assessment models used to make predictions and to categorize individuals according to their likelihood of an adverse outcome. He developed such models for two real-world problems in crime prevention (in collaboration with the Chicago and the Elgin Police Departments) and one in preventive medicine (with the Cedars-Sinai Medical Center from Los Angeles, California).