

# Yale University

*Department of Statistics and Data Science*

*Campus Address:*  
24 Hillhouse Avenue  
New Haven, Connecticut  
06511

*Email:* [elisa.celis@yale.edu](mailto:elisa.celis@yale.edu)  
*Telephone:* 203 432-1045  
*Fax:* 203 432-0633  
[www.stat.yale.edu](http://www.stat.yale.edu)

September 30, 2019

Joint Committee on State Administration and Regulatory Oversight  
Sen. Pacheco & Rep. Gregoire, Chairs

## **Support for S.1876/H.2701** **A commission to ensure good government in the age of artificial intelligence**

Dear Sen. Pacheco, Rep. Gregoire, and members of the Committee,

I am a professor of Statistics and Data Science at Yale university specializing on identifying and mitigating problems arising from the systematic biases encoded by artificial intelligence systems. I write today to offer my strong support for S.1876 and H.2701, *An Act Establishing A Commission On Transparency And Use Of Artificial Intelligence In Government Decision-Making* and *An Act Establishing A Commission On Automated Decision-Making, Artificial Intelligence, Transparency, Fairness, And Individual Rights*. This legislation will enable key stakeholders, including lawmakers, policymakers, and the general public, to better **understand the impact to human welfare arising from the use of artificial intelligence (AI) and data-driven technologies in government decision-making**.

On the one hand, AI has opened up possibilities and allowed for efficiency and scale in a way that is incredibly promising in all sectors. As such, it is not surprising that government entities across the country are increasingly using AI and data-driven technologies to make recommendations and decisions. Because of the very nature of governance, these decisions directly impact individual rights, freedoms, welfare, and access to services of constituents, and as such should not be left unchecked.

While AI technologies at first glance seem impressive, their results suffer from a **lie of objectivity**. Just because a so-called AI technology gives a prediction or recommendation that **on average appears accurate**, does not mean that it is reasonable, just, or ethical. In fact, such algorithms often can and do maximize overall metrics in a way that **violates human rights** by discriminating against sub-

populations defined by legally protected attributes such as sex or race.

The problems of bias and discrimination arise from the way the technologies are developed and deployed. There are fundamental feedback loops between human behavior, data collection, model design, AI training, and deployment that can, in lieu of careful consideration and intervention, result in AI that not only picks up on societal biases, but learns from them, reflects them, and makes them worse. In terms of policy, this can result in making discrimination and access to services worse for marginalized populations – often the exact opposite of what a policy is intended to achieve.

This is not a question of mere possibility – **my research, along of that of my esteemed colleagues in top universities and departments across the country, has repeatedly shown that discriminatory biases can and do occur in AI** – an unbiased data-driven technology is an exception, not the norm. There are increasing approaches and technologies that can leverage the power of AI while mitigating or eliminating problems of bias – however, ensuring this requires careful assessment, auditing, data collection, and evaluation. Deploying general state-of-the-art solutions does not suffice, and ensuring that appropriate strategies are employed for a given application requires a holistic and interdisciplinary effort.

To address these issues, S.1876 and H.2701 create a multidisciplinary Commission of experts and governmental leaders to study and make recommendations about the deployment of AI and other automated decision systems in use by government agencies in Massachusetts. This commission would make recommendations to ensure that the adoption of new technologies does not harm individuals or discriminate against legally protected groups and would inform the general public about the current uses of AI/ML systems in Massachusetts state government operations and suggest options for recourse when affected by such technologies. I consider this to be a crucial component of any just and equitable government that uses AI technology. **As such, I strongly support this legislation and urge the Committee to give S.1876 and H.2701 a prompt favorable report.**

Please do not hesitate to contact me for further information.

Sincerely,

A handwritten signature in black ink, appearing to read "L. Elisa Celis", written in a cursive style. The signature is positioned above a horizontal line.

Prof. L. Elisa Celis