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Hon. Andrew M. Cuomo
Governor
State Capitol Executive Chamber
Albany, New York 12224

Re: The Use of Artificial Intelligence to Further Agenda Items Outlined in the State of
        the State

Dear Governor Cuomo:

As your administration continues to pursue the robust and forward-looking agenda presented in your 2018 State of the State address, we believe the time is right for New York's government and legislative leaders to consider and craft practical policies for developing and implementing a fast-growing area of technology: artificial intelligence and related automation technologies ("AI").

In particular, there are several high level priorities described in the State of the State where current and future use of AI is both considerable and promising. Below are some examples of how your state agenda could readily be linked to opportunities for the use and regulation of AI.

Creating a Safer, Smarter, and Fairer Criminal Justice System

In recent years, there has been significant deployment of automated scoring systems relating to criminal sentencing, parole eligibility, and bail amounts,[1] including in the neighboring state of New Jersey.[2] While the potential for such systems to eliminate unconstitutional bias and

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[1] Jason Tashea, *Courts are Using AI to Sentence Criminals. That Must Stop Now*, WIRED (Apr. 17, 2017, 7:00 AM), https://www.wired.com/2017/04/courts-using-ai-sentence-criminals-must-stop-now/ (all websites last visited May 11, 2018).

[2] Ephrat Livni, *In the US, Some Criminal Court Judges Now Use Algorithms to Guide Decisions on Bail*, QUARTZ (Feb. 28, 2017), https://qz.com/920196/criminal-court-judges-in-new-jersey-now-use-algorithms-to-guide-decisions-on-bail/.

burdensome workloads is great,[3] scholars and journalists have raised concerns that such automated systems reinforce racial and economic biases as well as make the functioning and reasoning behind criminal justice decisions opaque to those affected.[4] While the utility and fairness of such systems will depend very much on the future regulation and quality assurance demanded by governmental end users, these systems are gaining traction across the country even as states fail to regulate their quality level or commercial development. New York should begin to investigate these systems so that, if deployed, they are deployed in a fair and transparent manner.

Protecting the Rights of Workers

One of the most significant intrusions into the lives of employees across many industries and income levels is the rise of automated decision-making systems.[5] These systems affect every aspect of the lives of workers, particularly those in low-wage jobs. Increasingly workers in a variety of fields are screened[6] and scheduled[7] automatically. Increasingly workers are effectively managed directly by algorithms[8] rather than humans,[9] particularly in the "gig economy". It is in the best interests of the people of New York to address these changes in the workplace holistically rather than by piecemeal legislation. New York should enact forward-looking legislation to seek out and prevent problems before they develop, both for the good of workers and also for the benefit of technology firms seeking to develop fair and forward-looking products for the workplace.

Preparing the Workforce of Today and Tomorrow

Educational planning at all levels should be developed with the goal of educating humans to complement and supervise AI rather than to compete with AI. While it is difficult to predict

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[3] *E.g.*, Sam Corbett-Davies, Sharad Goel and Sandra González-Bailón, *Even Imperfect Algorithms Can Improve the Criminal Justice System*, N.Y. TIMES (Dec. 20, 2017), https://www.nytimes.com/2017/12/20/upshot/algorithms-bail-criminal-justice-system.html; Caleb Watney, *It's Time for Our Justice System to Embrace Artificial Intelligence*, THE BROOKINGS INSTITUTION (July 20, 2017), https://www.brookings.edu/blog/techtank/2017/07/20/its-time-for-our-justice-system-to-embrace-artificial-intelligence/.

[4] *E.g.*, Ellora Thadaney Israni, *When an Algorithm Helps Send You to Prison*, N.Y. TIMES (Oct. 26, 2017), https://www.nytimes.com/2017/10/26/opinion/algorithm-compas-sentencing-bias.html; Bärí A. Williams, *'Intelligent' Policing and My Innocent Children*, N.Y. TIMES (Dec. 2, 2017), https://www.nytimes.com/2017/12/02/opinion/sunday/intelligent-policing-and-my-innocent-children.html .

[5] *See* Danika Fears, *Amazon Files Patents for Wristbands that Track Workers*, N.Y. POST (Feb. 2, 2018, 4:31 PM), https://nypost.com/2018/02/02/amazon-files-patents-for-wristbands-that-track-workers/.

[6] *E.g.*, Jennifer Alsever, *How AI Is Changing Your Job Hunt*, FORTUNE (May 19, 2017), http://fortune.com/2017/05/19/ai-changing-jobs-hiring-recruiting/.

[7] *E.g.*, Sharon Gaudin, *Ford Drives Scheduling with Artificial Intelligence*, COMPUTERWORLD (Feb. 4, 2015, 2:59 AM), https://www.computerworld.com/article/2879436/ford-drives-scheduling-with-artificial-intelligence.html; Michelle Chen, *'Flexible' Scheduling Is Stretching Retail Workers to the Breaking Point*, THE NATION (Mar. 11, 2015), https://www.thenation.com/article/flexible-scheduling-stretching-retail-workers-breaking-point/.

[8] *E.g.*, Nicole Kobie, *What's Next for the Gig Economy?*, ALPHR (Sept. 6, 2017), http://www.alphr.com/business/1006923/what-s-next-for-the-gig-economy.

[9] *E.g.*, Sarah O'Connor, *When Your Boss is an Algorithm*, FIN. TIMES (Sept. 7, 2016), https://www.ft.com/content/88fdc58e-754f-11e6-b60a-de4532d5ea35.

the future of any given industry or of the state economy generally, we recommend that such efforts be continuously recalibrated to reflect the very real threat that AI poses to existing jobs. By developing a robust school-age education program and a cutting-edge, nimble adult retraining program, New York will put itself on the front lines of adapting the American workforce to the inevitable changes that will result from AI and automation.[10]

<p style="text-align:center">***</p>

Rapid change is coming to New York and to the entire country as more automation and algorithmic intelligence is incorporated into everyday technology. It is in the best interests of New York to take a forward-looking, pro-active stance towards these developments in all domains where the State is likely to be affected. We recommend that you develop and promulgate a New York State policy statement regarding fair and transparent implementation of AI in both governmental and private sector use. Such a policy would ensure uniform, fair, and transparent use of AI for the benefit of New Yorkers.

We stand ready to offer additional assistance should that prove helpful.

Respectfully,

Aileen Nielsen, Chair
Science and the Law Committee

Laura D. Barbieri, Chair
Education and the Law Committee

Cc: Commissioner MaryEllen Elia, New York State Education Department
        Executive Deputy Commissioner Michael C. Green, Division of Criminal Justice Services
        Commissioner Roberta Reardon, New York State Department of Labor

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[10] Considerable efforts have been made by the New York City and State Departments of Education and the New York City Mayor's Office, in cooperation with industry partners, to expand Career and Technical Education (CTE) opportunities within secondary and post-secondary educational settings. This continued expansion of CTE promises to impart to tomorrow's workforce the necessary skills and adaptability that will be in increasingly high demand in the future economy, particularly in technology sectors where automation and AI will continue developing at breakneck speeds. *Cf.* NEW YORK CAREER AND TECHNICAL EDUCATION, http://www.p12.nysed.gov/cte/ (describing existing career and technical education programs).