

October 1, 2019

The Honorable Marc R. Pacheco, Chair
The Honorable Danielle W. Gregoire, Chair
Joint Committee on State Administration and Regulatory Oversight
24 Beacon St. Room 312-B
Boston, MA 02133

Dear Chairs Pacheco and Gregoire:

EPIC writes in support of House Bill 2701 and Senate Bill 1876, *An Act establishing a commission on automated decision-making, artificial intelligence, transparency, fairness, and individual rights*.

The Electronic Privacy Information Center (EPIC) is a public interest research center established in 1994 to focus public attention on emerging privacy and civil liberties issues.¹ EPIC has promoted algorithmic transparency for many years and has litigated several cases on the frontlines of AI in the federal government.² EPIC successfully sued U.S. Customs and Border Protection for documents relating to its use of secret, analytic tools to assign “risk assessments” to U.S. travelers.³ In *EPIC v. DHS*, EPIC sought to compel the Department of Homeland Security to produce documents related to a program that assesses “physiological and behavioral signals” to determine the probability that an individual might commit a crime.⁴ EPIC also sued the Department of Justice to produce documents concerning the use of “evidence-based risk assessment tools,” algorithms that try to predict recidivism, in all stages of sentencing.⁵

The algorithms at issue in these three cases are examples of problematic uses of AI by the federal government that EPIC has identified so far. As EPIC President Marc Rotenberg has explained, “Algorithmic accountability is a complex topic, but the impact cuts broadly across life in America, from jobs and credit to housing and criminal justice.”⁶

EPIC has also made an open and inclusive process for U.S. policy on AI a priority.⁷ Last week, EPIC filed an open government lawsuit against the National Security Commission on

¹ EPIC, *About EPIC*, <https://epic.org/epic/about.html>.

² EPIC, *Algorithmic Transparency*, <https://epic.org/algorithmic-transparency>.

³ EPIC, *EPIC v. CBP (Analytical Framework for Intelligence)*, <https://epic.org/foia/dhs/cbp/afi>.

⁴ EPIC, *EPIC v. DHS- FAST Program*, <https://epic.org/foia/dhs/fast>.

⁵ EPIC, *EPIC v. DOJ (Criminal Justice Algorithms)*, <https://epic.org/foia/doj/criminal-justice-algorithms>.

⁶ Marc Rotenberg, Editorial, *Bias by Computer*, N.Y. Times, Aug. 11, 2016, at A22, <https://www.nytimes.com/2016/08/11/opinion/bias-by-computer.html>.

⁷ See Letter from EPIC et al. to Michael Kratsios, Deputy U.S. Chief Technology Officer (July 4, 2018), <https://epic.org/privacy/ai/OSTP-AI-Petition.pdf> (“Unless the channels of public input are formally broadened and deepened substantially, the Select Committee will fail to understand and mitigate the risks of AI deployment.”).

Artificial Intelligence following the Commission’s repeated failure to make its records and meetings open to the public.⁸

EPIC has also recently published the first reference book on AI policy. The EPIC *AI Policy Sourcebook* is a compendium of current legislation, national AI initiatives, organizational recommendations, and an extensive list of resources including reports, articles, and books from experts around the world.⁹ We are pleased to provide copies of the AI Policy Sourcebook for the Joint Committee.

The Need for Algorithmic Transparency

Artificial intelligence is currently used by states to determine bail and criminal sentences, evaluate public employees, and determine government benefit eligibility.¹⁰ Bias and discrimination are often embedded in these systems yet there is no accountability for their impact. Criminal justice algorithms—sometimes called “risk assessments” or “evidenced-based methods”—are controversial tools that purport to predict future behavior by defendants and incarcerated persons.¹¹ These proprietary techniques are used to set bail, determine sentences, and even contribute to determinations about guilt or innocence. Yet the inner workings of these techniques are largely hidden from public view.

Many “risk assessment” algorithms consider personal characteristics such as age, sex, geography, family background, and employment status. As a result, two people accused of the same crime may receive sharply different bail or sentencing outcomes based on inputs beyond their control—but have no way of assessing or challenging the results.¹² Criminal justice algorithms are used across the country, but the specific tools differ by state or even county. In addition, because such algorithms are proprietary, they are not subject to state or federal open government laws.

All individuals should have the right to know the basis of an automated decision that concerns them. And there must be independent accountability for automated decisions.

Without knowledge of the factors that provide the basis for decisions, it is impossible to know whether government engages in practices that are deceptive, discriminatory, or unethical. The Pew Research Center recently found that most Americans are opposed to algorithms making decisions with consequences for humans, and 58% think algorithms reflect human bias.¹³ Without transparency about *what* systems are used and how throughout the Commonwealth, which H.2701’s

⁸ *EPIC v. Nat’l Security Comm’n on Artificial Intelligence*, No. 19-2906 (D.D.C. filed Sept. 27, 2019); EPIC, *EPIC Challenges Closed Door Meetings of US AI Commission* (Sept. 27, 2019), <https://epic.org/2019/09/epic-challenges-closed-door-me.html>.

⁹ *EPIC AI Policy Sourcebook 2019* (EPIC 2019), <https://epic.org/bookstore/ai2019/>.

¹⁰ Danielle Keats Citron & Frank Pasquale, *The Scored Society: Due Process for Automated Predictions*, 89 Wash. L. Rev. 1 (2014).

¹¹ Danielle Citron, *(Un)Fairness Of Risk Scores In Criminal Sentencing*, Forbes (July 2016), <https://www.forbes.com/sites/daniellecitron/2016/07/13/unfairness-of-risk-scores-in-criminal-sentencing/>

¹² Julia Angwin et al., *Machine Bias*, ProPublica (May 23, 2016), <https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing>.

¹³ Pew Research Center, *Public Attitudes Toward Computer Algorithms* (Nov. 2018), <http://www.pewinternet.org/2018/11/16/public-attitudes-toward-computer-algorithms/>.

commission can provide, the road past the problems of bias, fairness, and due process will remain elusive.

EPIC surveyed state “risk assessment” tool practices.¹⁴ Massachusetts had almost no information publicly available about the state’s use of automated decision making. H.2701/S.1876 is needed so the Commonwealth and its citizens can understand how state agencies are using artificial intelligence to make determinations about people.

Similar State Efforts

The dangers of Artificial Intelligence used by governments is a policy challenge every state, county, city, and government is grappling with. As various jurisdictions regulate the development and deployment of AI, several are using approaches similar to H.2701/S.1876. Rep. Garballey and Senator Lewis’ bills would position Massachusetts as a leader along these jurisdictions:

New York City

In 2018, the New York City Council created the first task force to “provide recommendations on how information on agency automated decision systems may be shared with the public and how agencies may address instances where people are harmed by agency automated decision systems.”¹⁵ The New York City Task Force must produce a report that includes: criteria for identifying agencies that should be subject to recommended new policies; development of citizen review of a decision made by an automated decision system; recommendations for a system that can assess disproportionate impact on certain immutable characteristics; and recommendations for a system by which automated decision systems can be made public for review.¹⁶ The New York City Task Force has faced difficulties.¹⁷ The problems stem from the vagueness of the statutory mandate and their lack of power to access the systems directly. Concerns about the lack of meaningful public input have also been expressed.¹⁸ New York City’s experience could provide guidance to Massachusetts – it demonstrates the need for specific authority and specific mandates.

New York State

The New York State Senate recently passed a law creating a "temporary state commission to study and investigate how to regulate artificial intelligence, robotics, and automation."¹⁹ The short bill lays out a commission comprised of gubernatorial appointees, legislative appointees, and representatives appointed by leadership of the City University of New York and State University of New York. The New York State commission sets out to study current law addressing AI both in and out of the state, liability regarding automated systems, impacts of regulation on industry, and public

¹⁴ EPIC, *Algorithms in the Criminal Justice System*, <https://epic.org/algorithmic-transparency/crim-justice/>.

¹⁵ NYC Local Law 49, Int No. 1696-A §1(b)(2) (2017) <https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=3137815&GUID=437A6A6D-62E1-47E2-9C42-461253F9C6D0>

¹⁶ *Id.* at § 3(a),(b),(e)

¹⁷ Colin Lecher, New York City’s algorithm task force is fracturing, *The Verge* (April 15, 2019) <https://www.theverge.com/2019/4/15/18309437/new-york-city-accountability-task-force-law-algorithm-transparency-automationn>

¹⁸ *Id.*

¹⁹ NY Senate 3971-B (February 22, 2019) <https://www.nysenate.gov/legislation/bills/2019/s3971>

sector applications of artificial intelligence and cognitive technologies.²⁰ The New York State commission has complete autonomy on the extent of public input and has only a statutory obligation to report to the governor and the leaders of the legislature.²¹

Vermont

In 2018, Vermont created a task force to study artificial intelligence and “make[s] recommendations on the responsible growth of Vermont’s emerging technology.” The Vermont Task Force includes government representatives, designees from trade associations throughout the field, and the ACLU Executive director.²² The law requires a report including a summary of current use and development of AI in Vermont, and proposals for defining AI, state regulation of AI, and for the responsible and ethical development of artificial intelligence of the state.²³

Alabama

In 2018, Alabama created a commission to “review and advise the Governor and the Legislature on all aspects of the growth of artificial intelligence and associated technology in the state.”²⁴ The Alabama Commission includes Gubernatorial and Lieutenant appointees, and designations from the Secretary of Commerce and Information Technology and legislative leadership.²⁵ The law requires appointing authorities to “coordinate their appointments to assure that commission membership is inclusive and reflects the racial, gender, geographic, urban, rural, and economic diversity of the state”²⁶—Massachusetts should consider adding a similar provision.

Idaho

Although not a commission for study, Idaho recently enacted a law that requires “all documents, data, records, and information used by the builder to build or validate the pretrial risk assessment tool and ongoing documents, data, records, and written policies outlining the usage and validation of the pretrial risk assessment tool” to be publicly available; allowing a party in a criminal case to review the calculations and data underlying their risk score; and precluding trade secret or other intellectual property defenses in discovery requests regarding the development and testing of the tool.²⁷ This is an exemplar for states committed to using algorithms in pre-trial sentencing while retaining the notions of fairness and due process.

²⁰ *Id.* at §1(a)-(h).

²¹ *Id.* at §4-5.

²² VT. H. 378 (May 21, 2018) <https://legislature.vermont.gov/bill/status/2018/H.378>

²³ Vermont Artificial Intelligence Task Force February 2019 Update Report, VT Artificial Intelligence Task Force (February 15, 2019) <https://legislature.vermont.gov/Documents/2020/WorkGroups/Senate%20Government%20Operations/Artificial%20Intelligence%20Task%20Force/W~Brian%20Breslend~Vermont%20Artificial%20Intelligence%20Task%20Force%20Feb%202019%20Update%20Report-1~2-8-2019.pdf>.

²⁴ AL. SJR71 (May 15, 2019)

<http://alisondb.legislature.state.al.us/ALISON/SearchableInstruments/2019RS/PrintFiles/SJR71-int.pdf>.

²⁵ *Id.* at § b(1)-(6)

²⁶ *Id.* at § e.

²⁷ Idaho Code § 19-1910 (2019) <https://legislature.idaho.gov/wp-content/uploads/sessioninfo/2019/legislation/H0118.pdf>.

Recommendations

H.2701/S.1876 will allow Massachusetts to understand the uses of AI by the Commonwealth and move forward with knowledge, public input and principled regulation that maximizes the benefits of this technology while minimizing risk to citizens. Currently, the use of AI by state agencies remains unknown and opaque to both lawmakers and citizens affected by it. The threshold must be a policy of disclosure.

EPIC particularly supports the provisions requiring the Commission to examine the manner by which state agencies validate and test the automated systems they use (iv), as well as matters related to “transparency, explicability, auditability, and accountability” of automated decision systems (v). EPIC also strongly supports requiring the Commission to evaluate the extent to which state agencies make AI systems available to external review (vi) and how such systems may directly or indirectly result in disparate impacts (viii). These provisions should be preserved.

EPIC also recommends these amendments to H.2701/S.1876:

- Section (e), detailing what the publicly available report shall include, should clarify the language "shall also detail the extent of algorithmic decision-making used by the Commonwealth of Massachusetts" to include the "complete and specific survey of all uses of automated decision systems by the Commonwealth of Massachusetts and the purposes for which such systems are used" referenced in § (b)(1) of the bill. There should also be specific language about how it is to be made publicly available.
- Regular solicitation of public participation and comment must be required, and meetings must be open and properly noticed. This should not be “to the extent necessary” deemed by the commission, but a minimum requirement.
- Subsection (c) should include a requirement appointments to the commission must be inclusive and reflects the racial, gender, geographic, urban, rural, and economic diversity of the Commonwealth.²⁸
- Require access to the source code of underlying systems regardless of their creator to allow meaningful review.
- The Commission should also be required to examine:
 - 1) What potential harms arise from the use of automated decision systems by state agencies and how are these risks currently addressed?
 - 2) What experience have other states had trying to address the challenges of automated decision systems?
- Membership of the Commission should be broadened – as currently composed, many talented scholars and technologists would be excluded.

²⁸ See AL. law at § e.

EPIC recommends our Massachusetts-based Advisory Board members for consideration for appointment to the Commission:

- Danielle Citron, Professor of Law at Boston University School of Law; 2019 MacArthur Fellow
- Woody Hartzog, Professor of Law and Computer Science at Northeastern University
- Harry Lewis, Gordon McKay Professor of Computer Science, Harvard University
- Ron L. Rivest, Institute Professor of Electrical Engineering and Computer Science, MIT
- Latanya Sweeney, Professor of Government and Technology in Residence at Harvard University; Director, Data Privacy Lab, Institute of Quantitative Social Science (IQSS) at Harvard University.
- Bruce Schneier, Fellow and Lecturer, Harvard Kennedy School
- Sherry Turkle, Abby Rockefeller Mauzé Professor of the Social Studies of Science and Technology, Massachusetts Institute of Technology; Founding Director, MIT Initiative on Technology and Self
- Jim Waldo, Gordon McKay Professor of the Practice of Computer Science and Chief Technology Officer, John A. Paulson School of Engineering and Applied Sciences at Harvard University

Best Practices for Regulating AI Systems

More broadly, EPIC recommends legislative solutions based on the Universal Guidelines for Artificial Intelligence (UGAI).²⁹ Over 250 experts (including former world chess champion Garry Kasparov) and 60 associations (including the American Association for the Advancement of Science, the world's leading scientific association) have endorsed the UGAI.³⁰

The UGAI “are intended to maximize the benefits of AI, to minimize the risk, and to ensure the protection of human rights.” These principles can provide the framework for any successful legislative efforts. Broadly, the guidelines address the rights and obligations of AI systems to ensure 1) fairness, accountability, and transparency; 2) autonomy and human determination; 3) data accuracy and quality; 4) safety and security; and 5) minimization of scope.

The Massachusetts Legislature should enact legislation, based on the Universal Guidelines for AI, to address concerns about bias and establish accountability for government agencies and companies who collect personal data.

²⁹ The Public Voice, *Universal Guidelines for Artificial Intelligence*, <https://thepublicvoice.org/AI-universal-guidelines/>.

³⁰ A full list of endorsers is available at The Public Voice, *Universal Guidelines for Artificial Intelligence: Endorsement*, <https://thepublicvoice.org/AI-universal-guidelines/endorsement/>.

Conclusion

Democratic governance is built on principles of procedural fairness and transparency. And accountability is key to decision making. We must know the basis of decisions made by government, whether right or wrong. But as decisions are automated, and organizations increasingly delegate decision making to techniques they do not fully understand, processes become more opaque and less accountable. It is therefore imperative that algorithmic processes be open, provable, and accountable.

When the government uses AI to make decisions about people, it raises fundamental questions about accountability, due process, and fairness. Algorithms deny people educational opportunities, employment, housing, insurance, and credit.³¹ Many of these decisions are entirely opaque, leaving individuals to wonder whether the decisions were accurate, fair, or even about them.

We do recognize the value of AI techniques for a wide range of government programs. But government activities that involve the processing of personal data trigger specific legal obligations; the use of new techniques will raise new challenges that this Commission established under H.2701/S.1876 should explore.

Passage of H.2701/S.1876 will allow the Legislature and the citizens of the Commonwealth to understand how state agencies are using automated decision making. This is a crucial first step towards ensuring that accountability, transparency, public input, privacy, fairness, education, and due process must remain at the forefront of the rapid adoption of new AI technologies.

If EPIC can be of any assistance to the Committee, please contact EPIC Policy Director Caitriona Fitzgerald at fitzgerald@epic.org.

Sincerely,

/s/ Marc Rotenberg

Marc Rotenberg
EPIC President

/s/ Caitriona Fitzgerald

Caitriona Fitzgerald
EPIC Policy Director

/s/ Ben Winters

Ben Winters
EPIC Equal Justice Works Fellow

Attachment

Universal Guidelines for AI

³¹ Danielle Keats Citron & Frank Pasquale, *The Scored Society: Due Process for Automated Predictions*, 89 Wash. L. Rev. 1 (2014).

Universal Guidelines for Artificial Intelligence

23 October 2018
Brussels, Belgium

New developments in Artificial Intelligence are transforming the world, from science and industry to government administration and finance. The rise of AI decision-making also implicates fundamental rights of fairness, accountability, and transparency. Modern data analysis produces significant outcomes that have real life consequences for people in employment, housing, credit, commerce, and criminal sentencing. Many of these techniques are entirely opaque, leaving individuals unaware whether the decisions were accurate, fair, or even about them.

We propose these Universal Guidelines to inform and improve the design and use of AI. The Guidelines are intended to maximize the benefits of AI, to minimize the risk, and to ensure the protection of human rights. These Guidelines should be incorporated into ethical standards, adopted in national law and international agreements, and built into the design of systems. We state clearly that the primary responsibility for AI systems must reside with those institutions that fund, develop, and deploy these systems.

1. **Right to Transparency.** All individuals have the right to know the basis of an AI decision that concerns them. This includes access to the factors, the logic, and techniques that produced the outcome.
2. **Right to Human Determination.** All individuals have the right to a final determination made by a person.
3. **Identification Obligation.** The institution responsible for an AI system must be made known to the public.
4. **Fairness Obligation.** Institutions must ensure that AI systems do not reflect unfair bias or make impermissible discriminatory decisions.
5. **Assessment and Accountability Obligation.** An AI system should be deployed only after an adequate evaluation of its purpose and objectives, its benefits, as well as its risks. Institutions must be responsible for decisions made by an AI system.
6. **Accuracy, Reliability, and Validity Obligations.** Institutions must ensure the accuracy, reliability, and validity of decisions.
7. **Data Quality Obligation.** Institutions must establish data provenance, and assure quality and relevance for the data input into algorithms.

8. **Public Safety Obligation.** Institutions must assess the public safety risks that arise from the deployment of AI systems that direct or control physical devices, and implement safety controls.
9. **Cybersecurity Obligation.** Institutions must secure AI systems against cybersecurity threats.
10. **Prohibition on Secret Profiling.** No institution shall establish or maintain a secret profiling system.
11. **Prohibition on Unitary Scoring.** No national government shall establish or maintain a general-purpose score on its citizens or residents.
12. **Termination Obligation.** An institution that has established an AI system has an affirmative obligation to terminate the system if human control of the system is no longer possible.