



April 28, 2021

MEMORANDUM

To: Vermont House of Representatives, House Committee on Energy and Technology
Care of: Matthew Grimo

From: Anthony Aguirre, Co-Founder, Future of Life Institute

Subject: **Comments on H. 410 and H. 263**

To supplement the requested testimony of Anthony Aguirre, co-founder of the Future of Life Institute (FLI), this memorandum responds to the request of the Vermont House of Representatives, in particular Rep. Lucy Rogers, for specific comments on [H.410](#): An act relating to the creation of the Artificial Intelligence Commission, and [H.263](#), An act relating to State development, use, and procurement of automated decision systems. We appreciate the opportunity to provide comments on these important pieces of legislation. Please contact Jared Brown, Senior Adviser for Government Affairs at FLI at jared@futureoflife.org for additional information as required.

I. Comments on H.410: An act relating to the creation of the Artificial Intelligence Commission

Page 3, Line 4, on the definition of ‘artificial intelligence’: As an alternative to the definition used herein, it may be beneficial for Vermont to adopt a definition used at the federal government level in the National AI Initiative Act, see [Sec. 5002\(3\)](#) of the National AI Initiative Act, Division E of [P.L. 116-283](#). By synergizing the definition between Vermont and the federal government, there may be less discrepancy between any eventual state-level and federal-level guidance or regulatory action on artificial intelligence. This definition states:

(3) ARTIFICIAL INTELLIGENCE.—The term “artificial intelligence” means a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations or decisions influencing real or virtual environments. Artificial intelligence systems use machine and human based inputs to—

(A) perceive real and virtual environments;

(B) abstract such perceptions into models through analysis in an automated manner; and

(C) use model inference to formulate options for information or action

Page 6, line 8, on the requirements for the report from the Artificial Intelligence

Commission: It may be beneficial to include three additional requirements to this report from the Commission the following provision, inserted before clause (F) (which will become clause (I)). A new clause (F) is being suggested as a means of providing Vermont with updated information on federal policy action related to A.I., in particular the applicable recommendations being made by a forthcoming authorized entity, the National A.I. Advisory Body, established in federal law in [Sec. 5004](#) of the National AI Initiative Act, Division E of [P.L. 116-283](#). A new clause (G) is being suggested so that Vermont is adequately informed about technical progress in the field of AI. In particular, with regard toward progress toward powerful AI systems. This may assist Vermont in addressing in advance the widely-held concerns of the artificial intelligence research community that increasingly capable, increasingly generalized AI systems may present uniquely catastrophic harms to humankind (as illustrated by Principles 19 through 23 of the [Asilomar AI Principles](#)). A new clause (H) is suggested to align with a common-interest that AI systems being used by the government of Vermont, and being allowed to be used by Vermont, are sufficiently trustworthy and do not create ethical or safety concerns.

(F) a summary of the recommendations of any relevant national bodies on artificial intelligence, particularly but not exclusively the National Artificial Intelligence Advisory Committee established by the U.S. Secretary of Commerce, and their applicability to Vermont,

(G) the state of the science around artificial intelligence, including progress toward artificial general intelligence,

(H) an analysis of whether Vermont law is sufficient to ensure the use of only trustworthy artificial intelligence systems by government agencies and the general public, including that such systems have sufficient algorithmic explainability; analytical methods for identifying and mitigating bias in artificial intelligence systems; and safety and robustness, including assurance, verification, validation, security, and control.

II. Comments on H.263, An act relating to State development, use, and procurement of automated decision systems.

Page 2, line 17, on the inventory of automated decision systems: We have two suggestions for revising the inventory created by the Secretary of Digital Services. With regard to existing clause Sec. 1(b)(2), we support the notion that Vermont would monitor the use of decision systems in conjunction with a weapon. We also note that there are other malicious uses of decision support systems, so we suggest revising Sec. 1(b)(2) to state:

(2) a description of the automated decision system's general capabilities, including reasonably foreseeable capabilities outside the scope of the agency's proposed use that may create harm, and whether the automated decision system is used or may be used to deploy or trigger any weapon;

We also suggest adding to a new clause (11), on page 5, line 7, to address the nature of the contractual relationship between the State and any third-parties that were used to develop the system. As stipulated in an AI principle adopted by the U.S. government, through its obligations to the Organisation for Economic Co-operation and Development (OECD), “AI actors should be accountable for the proper functioning of AI systems and for the respect of the above principles, based on their roles, the context, and consistent with the state of art.”¹ The crucial way in which accountability can be assured is through the contractual relationship between parties. A particularly useful aspect of such relationships is how it assigns liability. As has been explained in a variety of other governmental fora on AI systems, liability can “play a double role in our society: on the one hand, they ensure that victims of a damage caused by others get compensation and, on the other hand, they provide economic incentives for the liable party to avoid causing such damage.”² In their contractual relationship with vendors, government agencies have an unique opportunity to stipulate the degree to which liability is assigned on the use of automated decision systems. The more liability that is retained by the vendor, the more likely it is that they will be effectively incentivized to ensure their products are robust, safe, and ethical for the intended use of the government agency.³ Thus, we suggest adding a clause Section 1(b)(11) on page 6, to state:

(11) a description of any contractual relationship between the State and any third-party involved in the development, use, or procurement of the automated decision system, including:

- (A) a method, schedule, or process for monitoring the use and outputs of the automated decision system for harmful recommendations that violate ethical or legal principles,*
- (B) how the contractual relationship assigns liability to the parties of the agreement in instances where the use of the automated decision system may produce harm, and*
- (C) the process for correcting discovered flaws in the automated decision system once used, including which party shall bear the financial burden for updating the system.*

¹ See the principle on “Accountability” by the OECD, available at <https://oecd.ai/dashboards/ai-principles/P9>.

² European Commission, “White Paper: On Artificial Intelligence - A European approach to excellence and trust,” EN, 19.2.2020, p. 12, available at https://ec.europa.eu/info/sites/default/files/commission-white-paper-artificial-intelligence-feb2020_en.pdf.

³ For examples on how liability can address the harms of AI systems, see, for example, the work of John Villasenor, *Products liability law as a way to address AI harms*, Brookings Institution, Oct. 31, 2019, available at <https://www.brookings.edu/research/products-liability-law-as-a-way-to-address-ai-harms/>.