

My name is Milo Cress, I am a Junior at CVU High School. When I heard that Representative Cina had introduced a bill proposing the creation of a Commission to explore the economic, educational, legal and other implications of Artificial Intelligence here in VT, I contacted his office to express my support and to request an opportunity to share my view on the importance of such a Commission. I want to thank Representative Cina and the members of this Committee for inviting me to the Statehouse today to do just that.

I believe the proposed scope of this commission - to explore the questions that will shape how we view AI, how we create and promote AI technologies, and how they are regulated - is crucial. The Commission aims to bring together a diverse group of experts from academic, technological, social services, legal, and other backgrounds to engage in a thoughtful dialogue on these questions, to identify other areas in need of careful consideration, and to forge consensus on potential solutions to address challenges before they arise, so that we don't find ourselves scrambling to react to them after the fact.

I and others of my generation have a uniquely vested interest in how AI is introduced into our schools, our community and our world. If it's done well, there are many benefits to be gained from incorporating AI technologies; if done haphazardly, randomly, or without any forethought, the damage could be permanent and very detrimental. I would like to see AI fostered and promoted, while, at the same time, prioritizing the privacy and security of citizens.

Artificial intelligence is frequently defined as technology that can display traits traditionally considered human, such as creativity and intelligence, often achieved by mimicking human and animal cognitive processes.

Humanity has defined itself over the years, through its use of technology to change itself and its environment. Some new technologies take time to get used to and adapt to, but new AI technologies don't, *inherently*, make us, as humans, less valuable when they become able to drive a Tesla or beat us at chess, or by doing other things we used to pride ourselves in saying

that only humans could do.

Having experienced some form of technology in the classroom my entire life, I feel uniquely qualified to share lessons learned about the user experience of those technologies, both good and bad.

For example, in the 8th Grade, my school gave out iPads to students for classroom activities, and in the months that followed, chaos ensued, because teachers were obligated to include iPads into a curriculum which had no place for them yet, and the extra, flashy technology wound up being more of a distraction than an advantage. Furthermore, student who wanted to use the technology to explore subjects in further depth were stymied by restrictive internet use policies. The trouble was, the school was tossing technology into the classroom without laying the requisite groundwork for its success.

The next year, my school took a different approach. They provided notebook laptops to each student and designed the curriculum around the idea that content knowledge was now at our fingertips. The new skills they taught us, gave us the ability to synthesise and contextualize that knowledge. Now, technology didn't just augment the curriculum, it was at the core of it.

It was during this period of my life that I realized that what I could make my new machine do, was limited only by the bounds of my own creativity. This was one of the most empowering educational experiences of my life.

In my studies, I have not only made use of AI technologies, but have used my education to create AIs, as well. Recently, I gave the keynote speech at a statewide conference at Champlain College, addressing the use of technology in education. I was selected to give the keynote because of the work I did regarding neural networks and machine learning.

AI is already being deployed in Vermont public schools. There are AI programs which identify

plagiarism, those that help students with grammar, and some teach English as a Foreign Language.

These can support teachers, freeing-up more of their time to work directly with students on skills that are best taught in person, human to human, something from which both students and teachers benefit.

However, while some of these AI programs were created with the explicit purpose of aiding students and teachers, others were created by companies who design the AIs primarily as a means to collect and monetize the data of users.

Our schools bring in these AIs to enhance the learning experience, but often without realizing that some of the AIs are also collecting and monetizing the data of faculty, students, and even of parents.

According to the Electronic Frontier Foundation, “Almost one third of all students—elementary through high school—already use school-issued digital devices, and many of these devices present a serious risk to student privacy. They collect far more information on kids than is necessary, store this information indefinitely, and sometimes even upload it to the cloud automatically.”

These machines are often provided to schools for free, or at greatly reduced costs. But here’s the thing about the internet: either you are a consumer, or a product. If these services are free, then the price these schools pay is being the product.

The creation of a commission that not only encourages and supports the introduction of AI in a responsible way, but also analyses these types of risks and benefits, could be advantageous to the education of students of K-College in VT, and would be fundamental to privacy and security. The use of AI technologies will continue to expand in scope and frequency in VT, but without

this commission, it will do so without the framework needed to integrate it in a responsible way.

I've mentioned how technology, including AI technology, empowers education in Vermont. But now, I'd like to touch on an aspect of this Commission that will most impact me and my generation.

In a few years we will be assuming the reins and becoming the architects of future AI innovations. An important role, if not THE most important role this Commission can play, is in laying the groundwork so that current and future technologies are created and implemented in an ethical and responsible way.

It is crucial that, as innovators, we don't simply ask ourselves, "Can this be done?" but, rather, "Should this be done, and, if so, how can we do this in the most responsible way?" Interaction with AI has already begun and will only grow. The sooner this groundwork is laid, the healthier our relationship to AI will be.

One stated goal of this commission is to propose a code of ethics for AI development. This would go a long way toward laying that groundwork.

Because A.I. will soon impact most if not all aspects of society, and because it presents so many very important ethical and legal issues, I think it is essential that our legislators get ahead of the curve, and not wait to react to technologies only after they've already been introduced. This Commission would facilitate getting ahead of that curve.

I haven't had a lot of life experience, but I've learned from trial and error that, acting with foresight beats *re-acting* in *hindsight* pretty much every time.

Congressman Welch recently said "In a global economy, all Vermonters and all Vermont businesses must have access to... emerging technologies to be connected and competitive."

Artificial Intelligence is one of the most important emerging technologies that will affect every Vermonter.

We all have a stake in the future of Machine Learning and Artificial Intelligence technologies, and it is important that Vermont policy-makers take pro-active measures needed to ensure that these A.I. solutions best represent the interests of Vermonters - and this Commission will be an important step towards doing that.

As this would be one of the first Commissions of its kind in the country, the Vermont legislature has the opportunity not only to make history now, but to make its mark on the right side of history, setting a precedent by encouraging emerging technologies while also protecting the privacy and security of our students.

I hope you will not pass up this chance to make history and to make Vermont a place where AI technologies can be developed, promoted and integrated in a responsible way.

The advice of this Commission could spell the difference between my calamitous experience with iPads and my eye-opening experience with notebook laptops, for students like me across the state. The discrepancy between those experiences wasn't due to a difference in the quality of the two devices, but rather the approach to how each was implemented.

Thank you very much for your time today and for allowing me to share my view on this very important subject.

I'd like to leave you with this thought: as Lincoln said, "The best way to predict the future is to help create it." This commission offers us an opportunity to do exactly that.

I'm happy to take any questions the Committee has.