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MEMORANDUM

To: Robert Stivers, President of the Senate
David Osborne, Speaker of the House
Members of the Legislative Research Commission

From: Senator Amanda Mays Bledsoe, Co-Chair
Representative Josh Bray, Co-Chair

Subject: Findings and Recommendations of the Artificial Intelligence Task Force

Date: November 13, 2024

In a memorandum dated June 19, 2024, the Legislative Research Commission (LRC) established the Artificial Intelligence Task Force and directed it to:

1. Identify strategies by other states to study and monitor artificial intelligence systems developed, employed, and procured by other states' agencies.
2. Study other states' agencies currently using artificial intelligence systems in government operations.
3. Identify existing Kentucky agencies using artificial intelligence systems and study those systems.
4. Gather information on artificial intelligence systems used by other groups, including Kentucky businesses and the federal government.
5. Provide recommendations on how Kentucky government agencies' use of artificial intelligence systems would benefit their operation and procurement policies and the legislative initiatives needed to provide consumer protection in the private and public sectors.

The eleven-member task force began meeting in July 2024 and convened six times during the 2024 Interim. Over the course of the six meetings, the task force heard from several individual and agency stakeholders throughout the Commonwealth and beyond. These stakeholders included Microsoft; the National Association of State Chief Information Officers (NASCIO); Google; the Kentucky Commonwealth Office of Technology (COT); the Kentucky Cabinet for

Health and Family Services (CHFS); Elevance Health (DBA Anthem, Inc.); the Kentucky Secretary of State; the Kentucky Transportation Cabinet (KYTC); an independent Artificial Intelligence Safety Researcher; the Kentucky Office of the Attorney General; Amazon.com, Inc.; the Kentucky Board of Social Work (KBSW); and Salesforce.com, Inc.

In accordance with the June 19, 2024, memorandum, the task force submits the following findings and recommendations to LRC for consideration and referral to the appropriate committee or committees. These recommendations are based on the testimony provided to the task force during the 2024 Interim. The findings do not include independent research by LRC staff. This memorandum serves as the final work product of the task force.

Findings

1. **Artificial intelligence (AI) is evolving and becoming more advanced.**

   The term AI has been in circulation for decades. Many people use some form of AI daily, and often without even realizing it. For example, some of the most commonly used systems include ATM machines, spellcheck features, and autocomplete features on search engines like Google. These types of systems are a form of narrow AI (NAI), which are a simpler form of AI, but have been shown to complete specific tasks better and more efficiently than humans.

   However, NAI systems are not causing all of the attention in recent years. The increased discussion of AI is more centered around large language models (LLM), which have helped create more sophisticated forms of AI, like generative AI (GenAI). LLMs are a technology trained on large amounts of data and texts. Using the information provided, LLMs use math in order to make predictions. For example, LLMs may be able to finish a sentence based on the data provided.

   GenAI builds on LLM technology and can not only create text, but also images, videos, or audio. ChatGPT, a tool growing in popularity and utilized for content creation, is a form of GenAI. GPT-4 has even been found to pass the bar exam with a score in the 90th percentile. This evolution of AI technology has led to more conversation surrounding its use within the public and private sectors.

2. **AI systems are currently being used in the public and private sector.**

   AI was primarily thought to have the most significant impact on manual labor type jobs. However, with the development of GenAI, there has been an impact in the white-collar arena as well. While there is an impact on the workforce as a whole, with many public agencies and private companies utilizing AI, the overall goal among public agencies is not to replace employees. Instead, the goal is to use AI as a tool to improve productivity by relieving administrative burdens.

   Interactions with citizens and providing customer services are integral functions of state government that deliver governmental services. To help streamline interactions and

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increase efficiency, Chatbots are a common tool used in both the public and private sector. Chatbots were originally used for basic tasks, such as answering citizen questions from defined answers and routing citizens to a human representative. However, some organizations, like the Kentucky Transportation Cabinet (KYTC), are now experimenting with a GenAI version chatbot. KYTC's version will use the information from its website as a knowledge base for answering citizen questions.

Elevance Health, also known as Anthem, is among several companies in the private sector that are using AI in their operations. Elevance Health currently uses AI as a tool for improving the speed of approvals, supporting its call centers to help answer common inquiries, quickly reviewing members' plan documents, and predicting why a member may be contacting the agency. The use of AI in certain areas within Elevance Health is on track to reduce calls, which could improve overall member satisfaction.

Amazon is also among companies within the private sector utilizing AI in day-to-day operations. Amazon uses AI in robotics to make sorting and packaging products more efficient as well as through predictive intelligence, which informs Amazon of operational needs in order to fulfill the demand customers are creating. This form of predictive intelligence assists Amazon in making staffing and resourcing decisions. AI is also used to power route optimization systems that help provide delivery partners with the safest and most efficient route options for delivering products to customers.

In addition to the uses already in place, public and private entities are also planning future use cases of AI. For example, the Cabinet for Health and Family Services (CHFS) has several planned future use cases, including real-time document processing that could inform users of any potential errors or irregularities in the documents submitted. Elevance Health is continuing to look for more opportunities to use AI in order to shorten the time for decision-making while still ensuring accuracy and confidence.

3. **Public agencies and private companies have developed, or are beginning to develop, guidelines for the use of AI.**

   The Commonwealth Office of Technology (COT) serves as the single information technology (IT) authority of the Commonwealth. Therefore, any policies released by COT are considered the minimum requirement for executive branch agencies to follow. However, individual agencies can add more safeguards, so long as they are abiding by COT's minimum guidelines. COT plans to publish its AI policies for the Executive Branch in late November 2024.

   The key theme among AI usage guidelines in both the public and private sector seems to be the proper and responsible use of AI tools, which includes requiring a human to review the outcomes of the AI tools. This is often referred to as having a "human in the loop." COT, CHFS, and KYTC are among those public agencies that have expressed support for the importance of human involvement.

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Elevance Health also supports requiring human oversight on AI functions. For example, while Elevance Health uses AI for automatic approvals, it is not used for denial of prior-authorizations. Instead, any prior-authorization that is not automatically approved by the AI system is reviewed by clinical staff.

With the advent and implementation of autonomous vehicles, KYTC is working to ensure safety for all drivers. For example, KYTC is working on road markings (i.e., lane lines), signage, and communication systems to provide information on work zones and road closures to enhance safety for autonomous vehicles, human drivers, and road workers.

In general, most public agencies and private companies agree that there are still many unknowns regarding AI. While public and private sector entities alike have developed proposed guidelines, there remains a sense of uncertainty on how to approach the regulation of AI. However, many public and private entities are still doing what they can to place guidelines on the use of AI in their agencies.

4. **Other states are making investments toward AI research and development.**

The state of New York's 2025 budget includes a 10-year, $275 million investment to create an AI computing center at the University of Buffalo. The center will be used by New York institutions to promote responsible research and developments in AI. Oregon and Florida have also made similar investments toward the continuous research and development of AI.

5. **AI systems are being used in healthcare and some systems have proven to be useful tools to patients and providers.**

AI tools are increasingly being used in the healthcare system in several different areas, which include, among others, hospital operations and strategic planning in healthcare. In fact, there are currently 950 FDA-authorized medical devices that use AI in some way.

Currently, the highest use of AI in healthcare is found in the form of AI assistants and agents. These systems are used to interpret patient questions, provide curated information, and distill responses. They are also used to assist providers in summarizing and locating information, and they can also assist in conducting research.

At the University of Kentucky (UK), AI systems are being utilized in many different ways. For example, AI systems are being utilized to predict the number of emergency department arrivals on a given day. Compiling this information may be used to adequately staff the hospital and conduct transfers when necessary. UK also utilizes AI systems to predict extubation readiness among preterm infants, assess trauma with sonography, and forecast overdose rates.

Foundational models, a form of GenAI, are used to holistically leverage medical data and are being heavily invested in to garner valuable insight in patient care. These foundational models use large volumes of data to provide characterizations, which can be

used on a case-by-case basis for a particular patient. For these foundational models to reach their full potential, it is advised that the information provided adequately represents the population that the model will be used for.

6. **While there are apparent benefits to the use of AI in many different areas, there remain concerns about its use in both the public and private sector.**

   Concerns regarding the use of AI in the public and private sector primarily revolve around a few recurring issues. The first being the risk of bias in the training of AI systems. In order to operate, humans must train AI by inputting data or setting parameters. There are efforts in place by the public and private sectors to limit the risk of bias, which include training and continuous monitoring. However, the complete elimination of bias is still a concern.

   Another concern is the lack of knowledge surrounding the use of AI. A 2019 publication released by the National Association of Chief Information Officers (NASCIO) showed that states do not have the training and knowledge necessary to maintain AI. The Kentucky Board of Social Work (KBSW) also has concerns regarding the lack of AI literacy.

   There are also concerns about the use of AI to exploit children. In 2024, Kentucky passed House Bill 207 that added "computer-generated image" to the definition of child sexual abuse material (CSAM). Other states are also beginning to update their statutes to include language that would incorporate AI in their definitions, specifically in regard to minors and revenge porn in general. The Kentucky Office of the Attorney General and KBSW are also concerned about minors engaging with AI chatbots. Recently, in Florida, a child committed suicide after communicating with the chatbot.

   A relatively new concern is the use of AI to impersonate elected officials, as well as election candidates, in audio and video recordings. These impersonations are commonly referred to as "deep fakes," and the advancement of AI has made it extremely difficult to discern the accuracy of the video. The concern with deep fakes is the potential spread of misinformation to the public, especially regarding elections. In Kentucky, there is currently no law that makes it illegal to impersonate an election official, through the use of AI or any other means.

7. **There are concerns about the rapid evolution of AI, specifically the lack of AI safety legislation in place.**

   While there has been substantial progress in the development of AI, there has not been much progress regarding legislation focusing on the safe use of AI, specifically more advanced AI technologies that may be developed in the future. More advanced AI technologies, such as human level general AI, have the potential to operate similarly to humans. These advanced AI technologies are commonly referred to as superintelligence systems and could have the ability to perform better than humans in all aspects.

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Recommendations

1. Consider legislation that would provide policy standards for the utilization of AI by the state of Kentucky, which would include a framework for decision-making in ethical AI uses, the business cases for use, the approval process for use, disclosures in use, mitigating third-party risks in use, and ensure the data privacy of Kentucky citizens.

2. Urge the federal government to take immediate action on the regulation of AI.

3. Direct Legislative Research Commission (LRC) staff to provide a definition of artificial intelligence for legislative purposes in Kentucky.

4. Consider legislation that would promote and protect the integrity of Kentucky elections by encouraging the responsible use of AI as it relates to elections and the electoral process.

5. Encourage the Kentucky Community & Technical College System (KCTCS), in conjunction with the Council on Postsecondary Education (CPE), to conduct a study into how educational opportunities and efforts relating to AI offered by employers can translate into postsecondary educational achievements and college degrees.

6. Encourage the Kentucky Office of the Attorney General to investigate current healthcare related regulations to determine whether sufficient guidelines are in place to protect patients from possible HIPAA violations.

7. Encourage the Kentucky Office of the Attorney General to review laws related to individual likeness and continuously collaborate with the General Assembly on any issues resulting from AI advancements.

8. Consider allowing a one-time allocation of funds toward centers that could be used by Kentucky institutions to promote responsible research, developments, and advancements in AI.

9. Consider legislation that would promote the responsible use of AI by requiring certain disclosures when communicating with AI chatbots.

10. Encourage all infrastructure providers to develop a long-term AI governance model that ensures the integrity of its data, safeguards proprietary and confidential information, ensures accountability for the acceptable use of AI products, and creates a framework for best practices that instills ethical and moral guidelines.

11. Encourage the General Assembly to continue its support of policies that ensure utilities in the state of Kentucky possess the adequate generation and infrastructure required to meet increasing energy demands of the Commonwealth.