

TechNet AI Impact Task Force

Presentation

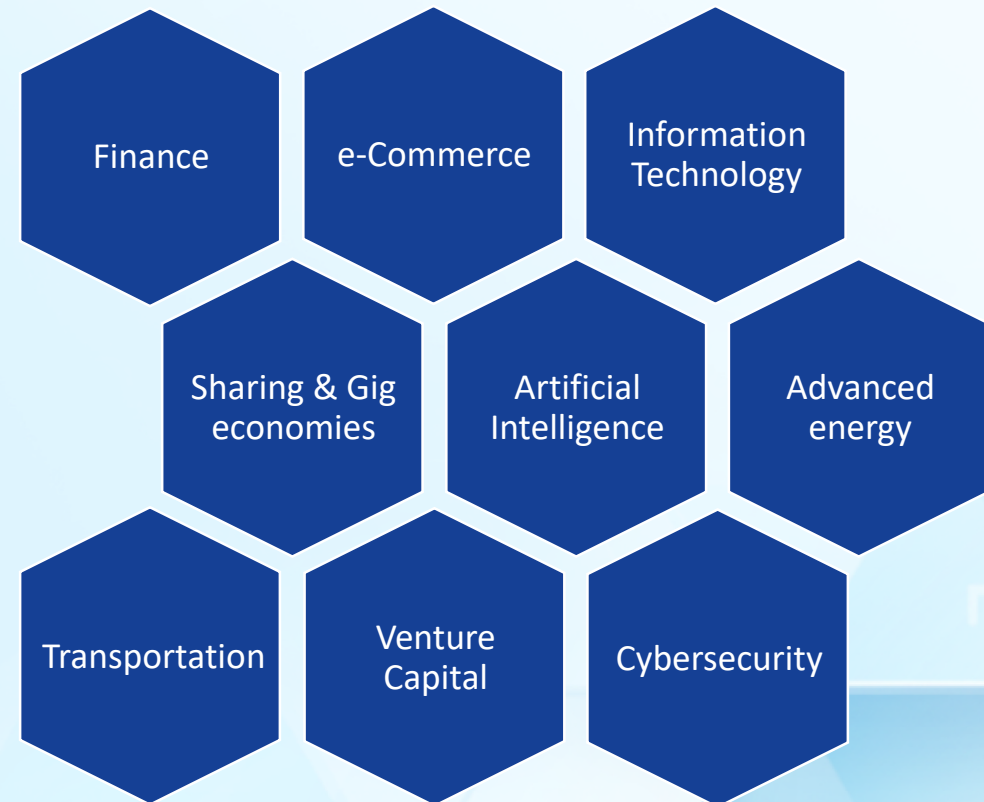
Colorado General Assembly

October 21, 2024

Meet TechNet:



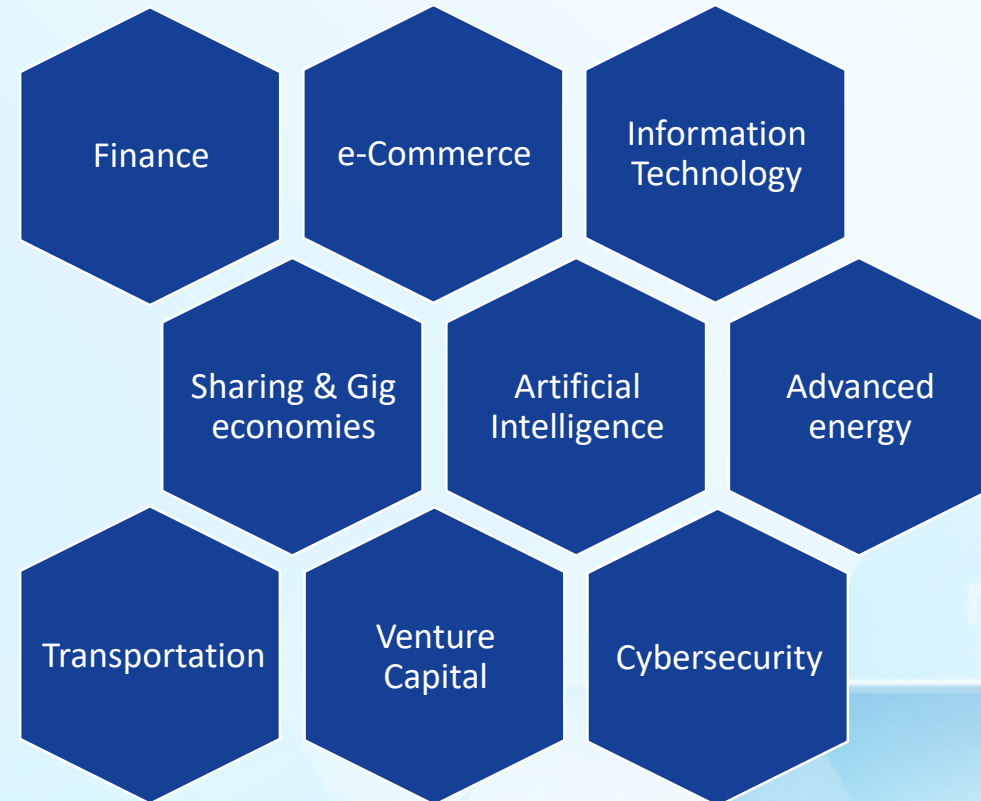
- We represent over 90 technology companies, 4.5 million employees
- Offices in Austin, Boston, Chicago, Denver, Harrisburg, Olympia, Sacramento, Silicon Valley, and Washington, D.C
- We champion policies that foster a climate of innovation and competition, allowing America's tech industry to flourish and make the U.S. the world leader in innovation



Meet TechNet:



- In 2024, TechNet worked on 761 bills in 45 states, Puerto Rico, and the District of Columbia
- Tracked an additional 2,240 bills in 2024
- Of these almost 3,000 bills, 465 were dealing with AI
- Representing a 588% increase from 2023 in state legislators' work on AI



How TechNet Members are Leading in AI



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AI for Agriculture

Helping Fruit Farmers Maximize Production

Scale AI and Orchard Robotics

Fruit farmers lose billions of dollars annually because they lack the data needed to manage crops precisely. Scale AI and Orchard Robotics developed an AI-driven precision crop management system that helps farmers prevent these losses by optimizing inputs like fertilizer, pesticides, and thinners for each tree to achieve maximum production. Using tractor-mounted, AI-powered camera systems, Orchard Robotics collects terabytes of image data and uses an AI model to allow farmers to integrate the AI model insights with existing farm operations.

Minimizing Environmental Damage

AgroScout

The growing impact of climate change could further cut crop yields, especially in the world's most food-insecure regions. Israeli startup AgroScout uses AI to monitor crop development in real-time, to more accurately plan processing and manufacturing operations across regions, crops, and growers. By utilizing AI technology, AgroScout detects pests and diseases early, allowing farmers to apply precise treatments that reduce agrochemical use by up to 85%. This innovation helps minimize the environmental damage caused by traditional agrochemicals, making a positive contribution towards sustainable agriculture practices.

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AI for Healthcare

Using Generative AI to Help Bring Drugs to Market

Bayer and Google

Bayer Pharmaceuticals, in partnership with Google, is exploring how generative AI solutions can help bring drugs to market. GenAI can help researchers more easily access, identify, and correlate data, mine large troves of research data for possible connections, and even automate the time-intensive tasks for clinical trials. Google's work will accelerate drug discovery via high-performance computing power, which includes efforts to run Bayer's large quantum chemistry calculations at scale with Google Cloud Tensor Processing Units (TPUs).

Increasing Efficiency Across the Medical Field

NetApp

Building an AI-ready infrastructure in the highly regulated healthcare environment is anything but straightforward. For AI to thrive, data must flow swiftly and securely from diagnostic solutions at the edge, throughout clinical applications, and to cloud environments. NetApp is helping healthcare organizations solve performance and security challenges by providing AI-driven solutions that remove bottlenecks at the edge, core, and cloud to enable more efficient data collection, faster AI workloads, and smoother cloud integration. NetApp's AI solutions are removing data silos to enable real-time diagnosis, speed the development of new drug treatments, and streamline administration.

Identifying Optimal Drug Combinations

Meta

Meta and Helmholtz Zentrum München have introduced an open-sourced model called Compositional Perturbation Autoencoder (CPA) that is designed to provide pharmaceutical labs, academic researchers, and biologists with AI-powered tools to help dramatically accelerate the process of identifying optimal combinations of drugs and other interventions that could ultimately lead to better treatments for complex diseases like cancer and novel diseases like COVID-19. This could not only speed up drug repurposing research but also, one day, make treatments much more personalized and tailored to individual cell responses, one of the most active challenges in the future of medicine to date.

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AI for Jobs

Improving Customer Experience **DoorDash**

DoorDash's 2023 Restaurant Ordering Trends Report revealed that one in five customers prefer to order takeout via phone, but 50% of customer calls were left unanswered. In response, DoorDash introduced AI-powered voice ordering technology that allows restaurants to answer every customer call they receive, meet demand at peak hours, improve customer experiences and increase restaurant sales. The new system couples AI with live agents to ensure customer calls are answered with little to no wait, enabling operators to capture the unmet customer demand.

Empowering Small Businesses **Intuit**

Through Intuit Assist, Intuit's generative AI-powered assistant, small businesses can get personalized, intelligent recommendations to help them make smart financial decisions with less work and complete confidence. Intuit Assist can streamline the accounting process and provide personalized insights and recommendations for small businesses based on cash flow. Intuit Assist can also create effective marketing content that small businesses can use to enhance their marketing practices by using generative AI to create marketing email content and materials based on industry, intent, and brand voice. In each instance, Intuit Assist provides entrepreneurs and small businesses with the tools they need to compete and grow.

Helping Employees Flag Defective Products **Amazon**

As products go through Amazon fulfillment center operations, up to five different employees use a six-point visual check to assess whether products are damaged. This is a time-consuming task that is difficult for employees to keep top of mind. To solve this problem and allow employees to focus on other important tasks, scientists at Amazon Fulfillment Technologies have developed advanced AI capabilities that can spot irregularities and flag defective products before they ship. Once deployed, the AI damage detector will help reduce customer costs and delivery times and help free up operations employees to stay focused on other core tasks and activities.

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AI for Cybersecurity

Boosting Fraud Detection **Mastercard**

Mastercard's new generative AI model, Decision Intelligence Pro, can help financial institutions improve their fraud detection rates by as much as 300%. The proprietary model is trained on data from the roughly 125 billion transactions that pass through Mastercard's network annually. Instead of focusing on textual inputs, Decision Intelligence Pro uses historical data to improve fraud detection rates by analyzing merchant relationships and predicting fraudulent transactions. The technology operates in real time and can potentially save financial institutions significant costs by eliminating much of the resources they'd typically devote to assessing illegitimate transactions.

Enhancing Fraud Prevention **NetApp**

Rules-based expert systems currently used to catch financial fraud have become too easy to beat, resulting in billions of dollars in losses each year. In addition to trying to combat fraud, financial services institutions are also challenged to make the right credit decisions, improve risk management, enable fast, insightful trading, and develop personalized services — all while improving the customer experience.. NetApp uses AI and machine learning to provide real-time, market-ready analytics and risk mitigation to reduce threats, eliminate fraud, and protect customer endpoints. With AI, NetApp is providing financial institutions the performance they need to feed, train, and operate their applications so they can quickly and accurately detect illegal or suspicious financial activity across all areas of their organizations.

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AI for Disaster Response

Enhancing Flood Mitigation **Google's Flood Hub**

Google's AI-driven Flood Hub helps governments, aid organizations, and individuals take timely action, providing flood data and forecasts up to 7 days in advance. Flood Hub's AI uses diverse, publicly-available data sources, such as weather forecasts and satellite imagery. The technology then combines two models: the Hydrologic Model, which forecasts the amount of water flowing in a river, and the Inundation Model, which predicts what areas are going to be affected and how deep the water will be. Google has been able to expand Flood Hub to over 80 countries, covering 460 million people globally.

Accelerating Disaster Damage Assessments

Bellwether and the National Guard

Bellwether, a new group within Alphabet's innovation lab "X," has developed new AI-powered tools to analyze aerial imagery of disaster scenes in seconds. Damage assessments are a critical first step to understanding the impact of disaster events before and during a response. Bellwether's new AI-powered tools can analyze photos taken at an angle by airplanes, compare them with satellite imagery and maps, and automatically identify locations, roads, buildings, and critical infrastructure and create labeled maps in a matter of seconds, drastically streamlining the damage assessment process and enabling faster and more precise disaster response coordination by the National Guard.

Improving Wildfire Response **Google**

Wildfires affect hundreds of thousands of people each year and are increasing in frequency and size. The need for accurate information when wildfires occur has never been greater. Google has partnered with a number of governments to develop a wildfire tracker that detects wildfire boundaries using new AI models based on satellite imagery to show their real-time location in Search and Maps. The tracker provides updated fire boundary information every 10–15 minutes and incorporates information from local authorities, on Google Search and Google Maps, allowing people to keep safe and stay informed about potential dangers near them, their homes, or loved ones.

The National Legislative Landscape:



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- 465 bills dealing with AI, a 588% increase from 2023
- The focus of many of the 2024 AI bills was specific harms due to the use of AI:
 - Election-related, deepfakes
 - CSAM
 - Nonconsensual intimate images
- CA veto period expired on September 30, Governor Newsom signed 17 AI bills into law, more than any other state so far

The National Legislative Landscape:



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- Enacted CA AI bills of note:
 - SB 896 – State use of GenAI, risks to critical infrastructure
 - AB 2885 – Enacts definitions of AI, HRAIS
- Vetoed CA AI bills of note:
 - SB 1047 – Frontier Models, Governor recognized tremendous risk to CA economy and tech industry
 - AB 2930 – narrower version of CO SB24-205, did not pass

TechNet SB 205 Recommendations:

Proposed areas for improvement, June letter, Gov. Polis, AG Weiser, Sen.

Rodriguez -



1) “Refining the definition of artificial intelligence systems to the most high-risk systems in order to align the definitions with federal measures and other frameworks established by states with substantial technology sectors;”

- We will continue to ask for clarifying amendments to the definition of HRAIS
- Additionally, we asked for clarifying amendments to the definitions of consequential decision and substantial factor and we now have the opportunity to refine those language proposals
- Ensure that the other related definitions to HRAIS are in the best form they can be. We are also looking at the definition of intentionally and substantially modifies

TechNet SB 205 Recommendations:

Proposed areas for improvement, June letter, Gov. Polis, AG Weiser, Sen.

Rodriguez -



2) “Focusing regulation on the developers of these high-risk systems, rather than those smaller companies that may deploy AI within third-party software that they use in the course of business;”

- We continue to have questions about the application of this bill, though not in this exact approach
- We previously asked for amendments to the definitions of developer and deployer
- We are considering whether there is an improved way to craft the qualifying requirements for deployers to have a more precise application under the bill’s intent.

TechNet SB 205 Recommendations:

Proposed areas for improvement, June letter, Gov. Polis, AG Weiser, Sen.

Rodriguez -



3) “Shifting from a proactive disclosure regime to the traditional enforcement regime managed by the Attorney General investigating matters after the fact;”

- We are open to exploring this approach and are working on additional improvements.
- Proactive disclosures cannot fully account for HRAIS contexts
- We are deliberating on the best formulation for the enforcement regime, using this opportunity to understand more fully the impacts on our members under the current drafting of 6-1-1702 and 6-1-1703

TechNet SB 205 Recommendations:

Proposed areas for improvement, June letter, Gov. Polis, AG Weiser, Sen.

Rodriguez -



4) “Making clear that the consumer right of appeal refers to the ability of consumers to appeal to the Colorado Attorney General about matters they believe warrant investigation, related to any discrimination resulting from the use of Artificial Intelligence. Moreover, consumers also have the right to bring a matter to the attention of the Colorado Civil Rights Commission relating to alleged discrimination;”

- We would appreciate clarification to the consumer right to appeal
- It is untenable in its current form, and we have previously asked for its removal

TechNet SB 205 Recommendations:

Proposed areas for improvement, June letter, Gov. Polis, AG Weiser, Sen.

Rodriguez -



5) “Considering other measures the state can take to become the most welcoming environment for technological innovation while preventing discrimination, especially for early-stage companies.”

- We support this intent
- There are many provisions we are working on that would support this proposed area of improvement
- Our recommended changes to the requirements for developers and deployers, as well as to the enforcement regime aligns with this approach
- Our request that the Right to Cure be reinstated, as well as that the backdoor PRA is removed also help to create a welcoming regulatory environment for tech innovation in CO

TechNet SB 205 Recommendations:

Proposed areas for improvement, June letter, Gov. Polis, AG Weiser, Sen.



Rodriguez -

“Finally, we agree that a state-by-state patchwork of regulation poses significant challenges to the cultivation of a strong technology sector...we believe that harmony across any regulatory framework adopted by states would limit the burden associated with a multi-state compliance scheme that deters investment and hampers small technology firms. We will work to ensure that Colorado’s laws are consistent with forthcoming regulation in other states and do not create unique burdens on Colorado companies and consumers, and remain open to delays in the implementation of this law to ensure such harmonization.”

- Given the number of AI legislation and newly-enacted AI bills in other states, we underline that this area of improvement will only grow in importance
- Definitions should be aligned with other state and national frameworks, while also ensuring that novel definitions offered in CAIA present the best formulation and most accurate drafting of those legal concepts for other states to look to
- Similar to our comments on the previous provision, we echo the concern that the CAIA be improved with care to not create unique burdens on CO companies and consumers
- Delay to implementation is prudent in this regard