Documents for the Record – 06.04.25

1. A March 2025 policy paper for CISCO titled, “AI for connectivity: how policy makers can help digitalization”
2. A May 21, 2025, letter with the subject line: Urgent Need for Federal Preemption of State AI Regulations
3. A June 3, 2025, letter from Real Estate Technology representatives.
4. A June 3, 2025, letter from WIA to subcommittee leadership.

Minority

5. Statement on New Jersey’s Ongoing Development and Oversight of Artificial Intelligence
6. Testimony of Dr. Krystal Rawls - Director, CSUDH Workforce Integration Network
7. A CAP release titled: “The House Is Close To Passing a Moratorium on State Efforts To Regulate AI”
8. A May 16, 2025, letter from the National Association of Attorneys General.
9. Pages from the Bipartisan House Task Force on Artificial Intelligence
10. A letter from Community Innovation Partnership
11. A June 4, 2025, letter from NDIA
12. Consumer Reports opposes AI state preemption language in House budget reconciliation bill
13. CSG Statement on Proposed Federal Moratorium on State AI Legislation
14. EPIC Opposes House Proposal to Ban States from Regulating AI
15. GOP Plan to Prevent AI Regulation Is Unhinged, Dangerous - Public Citizen
16. A Brookings commentary titled, “Not all robots take your job, some become your coworker.”
17. A May 28, 2025 article titled, “Behind the Curtain: A white-collar bloodbath”
18. The Trump administration has expanded Palantir’s work with the government, spreading the company’s technology — which could easily merge data on Americans — throughout agencies.
19. A May 13, 2025 letter from NCSL to Committee leadership
20. Open Markets Lambasts House Committee’s Blank Check to Silicon Valley Oligarchs — Open Markets Institute
21. A May 13, 2025 letter from companies to House leadership in opposition to a provision in the budget reconciliation bill.
22. Statement on House Reconciliation Bill Banning State AI Regulation for 10 Years
23. Critical Questions for the House Hearing Examining a Federal Restriction on State AI Regulation

Policy paper for Cisco

AI for connectivity: how policy makers can help digitalisation

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Executive summary

Artificial intelligence (AI) systems have significant potential to improve the operations of communications networks, including those offered by communications service providers (CSPs) and also end-user organisations (including enterprise and governments).

Although the adoption of AI in networks has begun, the communications industry has significant progress to make in order to fully realise the potential of AI. Policy makers, including governments and regulators, have a role to play in facilitating this adoption, and maximising the benefits of AI in communications networks. This paper sets out recommendations for how policy makers can help network operators to overcome challenges to embrace the capabilities of AI, which will drive a range of benefits in support of countries' wider digitalisation goals.

1.1 Improvements in communications networks operations will support digitalisation

Most national and regional governments have identified the benefits of digitalisation to the societies and economies that they govern. The goals of digitalisation include economic growth, increasing productivity and skills, improved delivery of public services, production of intellectual property, improving competitiveness with other economies, social inclusion and sustainable living. Any improvements in the operation and performance of digital communications networks will further support these goals. AI has the potential to provide improvements to networks across four key areas:

- improved resilience, including security and reliability, which is critical to underpinning the success of the digital economy
- improved operational efficiency, which lowers costs and therefore can allow greater coverage and capacity, and/or lower prices
- improved technical performance and customer experience, leading to increased satisfaction with services on the networks
- savings in energy consumption, which mitigate the carbon impact of networks.

Overall, AI supports the operation of networks, which in turn helps to unlock the benefits of digitalisation.

1.2 AI applications in communications networks combine to deliver digitalisation benefits

As communications networks continue to increase in size and complexity, with much of the potential functionality operating at 'machine scale', more control of that functionality will need to be handled by machines. AI has wide potential to be implemented in networks in both 'customer-facing' and 'network-facing' functions. While customer-facing functions are relevant to the digitalisation goals of policy makers, we have focused on the use of AI in network-facing functions, as these most directly support the aims of resilient, efficient, capable and sustainable networks.

We have chosen to focus on the benefits provided by a selection of the most promising use cases for the implementation of AI in communications networks. Our chosen applications are applicable to a wide range of interpretations of digital communications networks:

- networks operated by CSPs, such as mobile (e.g. 5G) and fixed (e.g. fibre) networks; and
- networks operated by public and private organisations (enterprise and government networks), which may run as an 'overlay' on the CSP networks.

This paper highlights the following applications in relation to AI in communications:

Anomaly detection, root cause analysis and issue prioritisation	AI-powered anomaly detection, root cause analysis and issue prioritisation allows rapid recovery from security and reliability issues, and fewer issues in the future. These features reduce network costs and minimise downtime for end users, reducing the wider economic and societal impact of security and reliability incidents, while boosting confidence in communications networks.
Configuration fidelity	AI-supported network configuration fidelity helps to reduce the likelihood of human error-driven network outages, by ensuring that all network equipment receives the correct parameters during both set-up and maintenance.
Predictive maintenance	AI-powered predictive maintenance systems 'listen' to a wide range of data inputs from the network, and by analysing the circumstances of previous failures can plan and target maintenance activities to avoid breakdowns before they occur.
Capacity management and planning	AI can analyse current and historical traffic data and form predictions based on previous patterns, to enable more accurate forecasting of when new investments should be made. This benefits both end-user experience (i.e. during busy periods) and operator cost management.
Capex optimisation	AI-enabled capex optimisation uses the data from the network to guide effective upgrades of the existing network to improve the experience of current customers, and help increase network coverage into new areas.
Optimisation of wireless networks	AI has the potential to improve the capabilities of wireless networks, which are typically constrained by the coverage and capacity dynamics of the spectrum they use. AI can make the best use of the spectrum resources available through dynamic allocation of spectrum, advanced beamforming and interference mitigation.
Energy consumption optimisation	The data analysis and advanced computation capabilities of AI can provide energy consumption (and cost reduction) benefits. These include dynamically putting idle network assets to sleep, and also potentially replacing conventional processing functions with a more energy-efficient alternative.

1.3 Overcoming implementation barriers will support adoption of AI in communications

Despite the potential benefits of AI applications in communications networks, implementation is being held back by a range of barriers:

- Data: while communications networks are rich sources of data, this data is often 'siloed' within the network operator (i.e. for different network- or customer-facing functions), requiring significant resources to access and prepare data, even before it can be used by AI.
- Trust: including concerns over both network configuration integrity and network security. Within the 'critical infrastructure' mindset of connectivity providers, network teams can be reluctant to allow AI to influence the operation of their systems (e.g. by recommending network parameters, or other network-related decisions). Network teams may also have security concerns related to the use of third-party AI models from external environments being allowed to work on internal data.
- Skills: communications network providers tend to be staffed by network experts, not data scientists and code debuggers. Their networks are generating data at an increasing rate, but they may not have enough of the right sort of skills to capitalise on the opportunity. Furthermore, existing governance teams will need to consider new types of issues, including whether any deployment of AI is done in a secure and responsible manner.
- Budget: deployment of any new technology by an organisation requires investment, and must be shown to provide a positive return. Some communications network providers are struggling to demonstrate a positive return on investment for AI deployments, due to the large up-front costs and uncertainties over the impact of AI on their operations.
- Regulation: existing regulation may be creating barriers both explicit (e.g. by imposing a significant reporting and governance burden on the use of AI) and implicit (e.g. because it is not clear how or whether the regulations can be met). These issues may be compounded where AI regulation overlaps with other areas of regulation, such as those related to data localisation and data transfer, or cloud, cyber security, telecoms, energy).

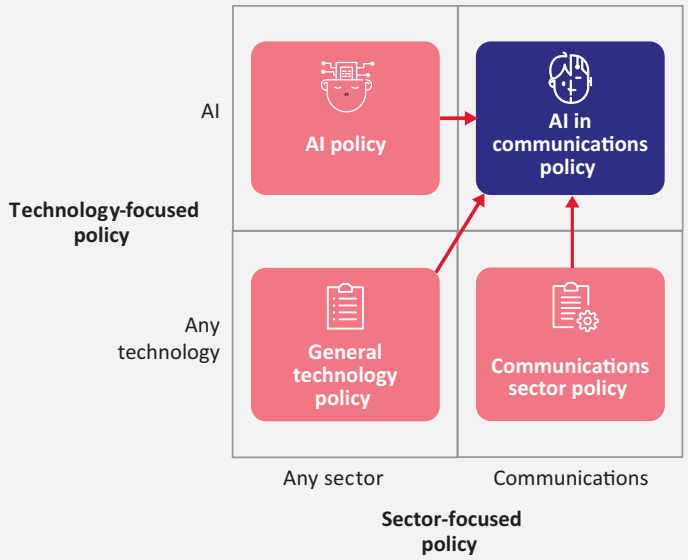
1.4 Policy makers have tools to maximise the potential of AI in communications networks

Some jurisdictions (whether national or regional) already have some form of AI-related and/or communications-related policies. There is an opportunity for policy makers to bring these elements together, to create a supportive environment for AI in communications, for the following reasons:

- communications networks are a critical foundation of all digital transformation goals; and
- the high-tech nature of communications makes it a natural first step for more sector-specific AI policy actions, which can lead the way for implementation in other sectors.

Existing policy can be tailored to focus on AI in communications, as shown in Figure 1.2.

Figure 1.2: Illustration of how existing policy can be targeted at AI in communications
[Source: Analysys Mason, 2025]



We present recommendations overleaf for policy makers under four high-level themes: engage, facilitate, implement and intervene.

Policy makers have a range of tools to maximise the potential of AI in communications networks

Engage 	**Continual assessment of industry status**	Current and future trends	Multiple intelligence sources	Wide stakeholder engagement	Regulator reporting outputs
	Convene industry stakeholders	Share lessons and successes	Sub-groups with specific focus	Regular meetings	Inception report and regular updates
Facilitate 	**Guidance on best practice**	Frameworks, with guiding principles based on industry success	Standards, used sparingly to enable interoperability		
	Ensure AI skills are available	Map what skills are needed and where	Government-supported training programmes	AI modules in university courses	Publish budgets
Implement 	**Targeted R&D programmes**	Define specific goals for funding	Define project award criteria	Infrastructure partnerships techniques	Publish budgets
	Use of AI in government networks	Deploy AI in government networks	Build on initiatives and engagements above	Share results with trusted stakeholders	
Intervene 	**Incentives to invest**	Tax incentives	Government-supported finance	Links to R&D programmes	Links to specific applications
	Shape outcomes	Regulation should be outcomes based	Collaborate and harmonise	Issue guidance on how to meet	Consult and iterate on changes

Communications networks are a natural fit for the capabilities of AI. AI-enabled communications networks are more resilient, capable, efficient and sustainable than conventional networks While there are implementation barriers to overcome, policy makers can take a leadership role in addressing these, and help to deliver wider digitalisation goals

2

Policy makers should consider the role of AI in meeting digitalisation goals

This paper examines how integrating artificial intelligence (AI) into communications networks can improve their performance, thereby advancing wider digitalisation[1] efforts, and contributing to economic and societal goals.

2.1 Many countries and regions have clearly identified the benefits of digitalisation

Most national and regional governments have identified the benefits of digitalisation to the societies and economies that they govern. Though the specific goals of digitalisation strategies vary between different jurisdictions, some common themes include:[2]

- driving economic growth and prosperity
- enhancing productivity of businesses and public services
- developing new skills and intellectual property
- increasing competitiveness with other economies
- ensuring social inclusion and closing the digital divide
- supporting a more energy efficient and sustainable society.

These aims are critically underpinned by digital communications which are:

- resilient, including secure and reliable (i.e. resistant to cyber attacks and technical faults)
- widely used (i.e. with good take-up by end users)
- widely available (i.e. with good coverage and performance across both urban and rural areas)
- economically sustainable (i.e. where network providers can earn a fair return and can continue to invest)
- environmentally sustainable (i.e. efficient in the consumption of energy and the associated emissions of carbon).

2.2 There is a clear link between digitalisation, communications networks and AI

While digital communications networks are typically well established, any improvements in their operation and performance will further support the goals described above. AI has the potential to provide such improvements across four key areas:

- AI can deliver security and reliability benefits, which improves users' confidence in digital services and the underlying networks: something which is critical to the success of a digital economy.

- AI can improve operational efficiency, which lowers costs. Lower cost means more network coverage (because the commercially viable limit of coverage can be pushed further into rural areas), more capacity

[1] We define digitalisation as the process of integrating digital technologies into all aspects of society. This transformation affects how businesses operate, how services are delivered, and how end users interact with each other, and with service providers and institutions.

[2] Themes inspired by a review of digital strategies from the USA, the European Union and the UK.

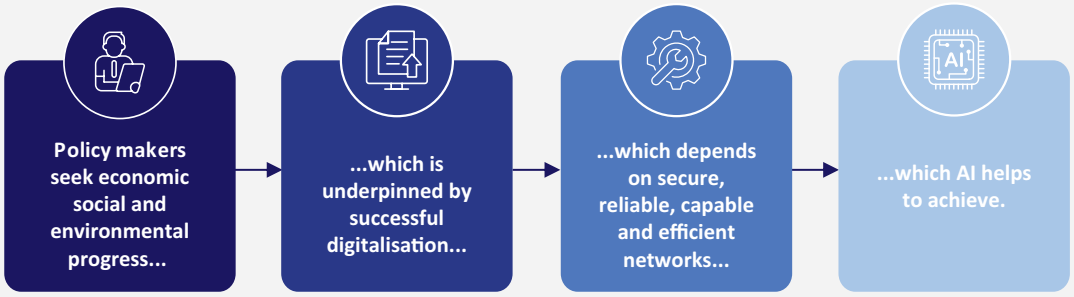
(because more upgrades can be delivered from the available budget) and/or lower prices (which encourages take-up of the networks).

- AI can improve network technical performance for metrics such as spectrum efficiency and consistent quality of experience. AI can also provide a better customer experience, which helps to protect users' perception of the network. This, in turn, enhances revenue performance by lowering customer churn.

- AI can deliver savings in energy consumption by networks, which will alleviate some of the scrutiny being placed on digital communications as a source of carbon emissions, and support wider national and regional decarbonisation goals.

Overall, AI supports the operation of networks, which in turn helps to unlock the benefits of digitalisation. These interdependencies are summarised in Figure 2.1.

Figure 2.1: Interdependencies between digitalisation, networks and AI [Source: Analysys Mason, 2025]



3

Implementing AI in networks can deliver a range of benefits

AI has broad potential to deliver a range of benefits to the operation and performance of digital communications networks, whether they be offered by telecoms operators, or by 'end-user' organisations such as governments and enterprises. In this section we start with an introduction to the basic concepts of using AI in communications, before highlighting the benefits of a selection of the most compelling applications.

3.1 Introduction to the use of AI in communications networks

AI has wide potential to be implemented in networks. Communications networks are a natural fit for the capabilities offered by AI:

- as communications networks continue to increase in size and complexity, with much of the potential functionality operating at 'machine scale', more control of that functionality will need to be handled by machines; and
- networks are rich sources of data, which is essential to both 'train' AI models, and then for these models to 'infer' results based on ongoing access to data. Data comes from two sources: data on the volumes of traffic being carried by the networks, and data on how the network is switching and routeing that traffic.

In the following sub-sections, we provide an introduction to the fundamentals of using AI in communications networks.

3.1.1 AI is the use of machines and computers to mimic aspects of human intelligence

AI is a concept whereby a set of technologies is used to create machines and computers that can mimic human intelligence and perform advanced functions such as seeing, understanding and translating language (in either written or spoken formats), or analysing data to make predictions and recommendations.

These technologies are based primarily on machine learning (ML) and deep learning (DL) techniques. They are crafted to yield specific outcomes that can be applied to daily business operations to achieve several benefits, including the automation and simplification of complex tasks to deliver better experiences to customers and more efficient operations.[3]

3.1.2 We can split the use of AI in communications networks into generative and discriminative[4] AI

Much of the current interest in AI is around generative forms of AI. Generative AI (GenAI)-based tools are software applications that use ML and DL models to create new content such as text, images and videos. These models are trained to recognise patterns in datasets and use their learnings to perform content generation-related tasks including content summarisation, translation and transcription.

However, the other (non-generative) form of AI, often called discriminative AI, is of critical importance to the future of communications networks. These AI-based tools include computer vision, predictive systems

[3] https://www.analysysmason.com/research/content/articles/generative-artificial-intelligence-rma14/

[4] For use of term, see Infocomm Media Development Authority and Personal Data Protection Commission (2020), https://www.pdpc.gov.sg/-/media/Files/PDPC/PDF-Files/Resource-for-Organisation/AI/SGModelAIGovFramework2.pdf

and prescriptive systems (including recommendation engines) and are integral to the overall AI landscape. They have been adopted by multiple industries, including communications, and are beginning to play important roles in transformation journeys.

A summary comparison of generative versus discriminative AI is provided in Figure 3.1.

Figure 3.1: Comparison of attributes of generative versus discriminative AI
[Source: Analysys Mason, 2025]

Comparison	GenAI	Discriminative AI
Overall purpose	Creates new content by learning patterns and structures from its training data	Analyses and interprets data it is provided to make predictions, decisions and classifications
Underlying computation models	Developed using multi-purpose foundation models such as large language models (LLMs)	Developed using comparatively small AI models which are task specific
Example outputs	Text transcription, agentic support and code generation	Capable of supporting prediction, anomaly detection and recommendation systems
Potential application within communications networks	Numerous applications in customer-facing functions, including customer service and product recommendation. Can provide a user interface for network operations, along with potential to enact autonomous network functions	Core to the analysis and management of the communications networks themselves, including for resilience and efficiency
	We discuss a selection of network use cases in detail later in this paper	

3.1.3 We have focused on network-facing applications of AI, for multiple network types

AI for communications networks has applications in both 'customer-facing' and 'network-facing' functions. While customer-facing functions are relevant to the digitalisation goals of policy makers, we have focused on the use of AI in network-facing functions, as these most directly support the aims of resilient, efficient and sustainable networks.

However, the applications considered in this paper are applicable across a wide range of network types, including:

- networks operated by communications service providers (CSPs), such as mobile (e.g. 5G) and fixed (e.g. fibre) networks; and
- networks operated by public and private organisations (enterprise and government networks), which may run as an 'overlay' on the CSPs' networks

The AI applications we discuss in this paper are applicable across the full physical and logical scope of communications networks, including from the radio and fibre access networks, through to intermediate switching and routeing locations, and data centres (and communications within data centres).

3.1.4 We discuss a selection of the most promising use cases in relation to AI in communications

Given the focus of the paper on network-facing functions, we have chosen to focus on the benefits provided by a selection of the most promising use cases. These use cases and their associated benefits are summarised in Figure 3.2, and discussed in more detail in the sections below.

Figure 3.2: Summary of selected AI use cases and associated benefits [Source: Analysys Mason, 2025]

	Benefits provided by each use case				
Use case	**Security**	**Reliability**	**Performance**	**Cost efficiency**	**Energy efficiency**
Anomaly detection, root cause analysis and issue prioritisation	✓	✓		✓	
Configuration fidelity		✓	✓	✓	
Predictive maintenance		✓	✓	✓	
Capacity management and planning			✓	✓	✓
Capex optimisation				✓	
Optimisation of wireless networks		✓	✓		✓
Energy consumption optimisation				✓	✓

3.2 Anomaly detection, root cause analysis and issue prioritisation

The resilience of communications networks is critical to the success of a more digitalised society. As more public and private organisations become dependent on communications networks for their operations, any disruption or outage will have a significant economic impact. On an individual level, interruptions in connectivity are at best inconvenient and at worst create a risk to life.

Two of the main sources of disruption to communications networks come from external threats (e.g. cyber attacks) and internal faults (e.g. due to equipment failure or mismanagement).

The capabilities of AI are ideally suited to mitigating the resilience risks from cyber attacks and faults, building on the data available from the networks. Communications networks generate vast amounts of data, which can be categorised into two broad types of information:

- information on the end users' data conveyed by the network, including traffic flows and volumes, as information is exchanged between content sources and end users[5]

[5] Also known as the 'user plane'.

- information on the operation of the network itself, in the form of logs created by each piece of equipment in the network. These logs include information on traffic, diagnostics, maintenance and security.[6]

AI has the ability to analyse and learn from that data, and support the resilient operation of the network in three ways:

Anomaly detection	AI anomaly detection is a technique whereby AI is used to identify unusual patterns in a dataset. This technique can be applied to the data available from the network, to identify degradations in performance, unexpected errors, security intrusions or other unexpected events of interest.[7]
Root cause analysis	AI can quickly analyse the vast quantities of data from the network to identify the root cause of any interruption being experienced. This can include the point of origin and nature of a cyber attack, and also the specific issues causing a fault. Once the issue is identified, actions can be taken to rectify the issue, identify it quickly in the future, and potentially prevent it from happening again at all.
Prioritisation of issues and automation of response	Depending on the nature of the issue, network teams may be presented with warnings from multiple elements of the network. AI can help to prioritise these issues so that effort can be focused on the most impactful to quickly restore service. In this case, the two categories of AI can work together: discriminative AI identifies and prioritises the issue, while GenAI creates a user-friendly interface, to query a knowledge base for suggested options for resolution. Where appropriate, AI can automatically implement the resolution, without human intervention, according to rules previously defined by the network team.

Some providers of communications networks are already leading the way in using AI to enhance the resilience of their networks to cyber attacks and internal faults, as summarised in Figure 3.3.

Figure 3.3: How network providers use AI to improve resilience [Source: Analysys Mason, 2025]

Example	Description
Automated network and security operations	Nokia is to provide T-Mobile Netherlands with a range of managed security services to cover all network elements, including AI-based network optimisation and security automation. For example. Nokia's NetGuard Audit Compliance Manager will facilitate automated auditing and remediation of network security configurations.[8]
Cyber-threat protection for university	The University of Derby (UK) has implemented AI-powered security measures and behavioural analytics in order to protect its critical network infrastructure, including its servers, systems and cloud environment, from cyber threats. The solution, provided by Palo Alto Networks, uses data analytics to alert the university to incidents and conduct root cause analysis.[9]

[6] Also known as the 'control plane'.

[7] Anomaly Detection Using AI & Machine Learning | Nile.

[8] https://www.nokia.com/about-us/news/releases/2021/05/27/nokia-selected-by-t-mobile-to-deliver-managed-security-services-and-optical-network-modernization/

[9] https://www.paloaltonetworks.co.uk/customers/university-of-derby

Example	Description
Boost to mobile and fixed network reliability	True Corp's Business and Network Intelligence Center (BNIC) uses AI to monitor and analyse its network as well as to automate key network functions and propose resolutions to network issues.[10]
In-house developed root cause analysis solution	KT (KT's Network Operation Intelligence Professional Developer Groups in the KT R&D Centre) developed its in-house AI-based network failure Root Cause Analysis (RCA) solution called "Dr Lauren". Opex savings are estimated to be USD1.2 million annually.[11]
Installation fault management	BT is using AI to support quality audits to detect and predict faults in equipment during installation, boosting efficiency by reducing the need for repeat visits.[12]
Issue prioritisation in full-fibre network	Orange Group is applying ML technologies to its fibre-to-the-home (FTTH) network data to prioritise network problems that must be resolved and to identify the root causes of network failures and associated remedies. By applying AI and automating resolution workflows, Orange has avoided 280 000 field trips and saved EUR20 million per annum.[13]
Streamlining of network operations	DENSO (automotive industry) used Cisco's DNA Center and AI capabilities to streamline its network operations, visualise network configuration, perform root cause analysis and suggest solutions. The DNA Center also performs automatic updates of the factory network in 15 locations.[14]
Early anomaly detection and root cause analysis	Ooredoo Qatar is implementing Reailize's Continuous Assurance and Anomaly Detection solutions for its network. The solutions use AI to detect network anomalies, perform root cause analysis and recommend remediation actions.[15]
Centralised network health monitoring for improved incident detection	Globe Telecom uses Cisco Splunk's Enterprise Platform solution to centralise its network, application and database monitoring practices, facilitating accelerated reporting, improved anomaly detection and a reduced burden on resources. Globe Telecom also uses Cisco Splunk's IT Service Intelligence solution,[16] which sits on top of the Cisco Splunk Enterprise Platform and facilitates AI-driven incident detection and resolution.[17] Following implementation, Globe Telecom achieved an 80% reduction in incident detection time and a 50% acceleration in system health reporting.[18]
Enterprise use of AI for wireless optimisation	expert, an electronics reseller, used Juniper's AI-Native networking platform to provide wireless, secure and reliable LAN connectivity, with automated network insights, fault detection and resolution.[19]

[10] https://developingtelecoms.com/telecom-business/operator-news/16247-true-corp-leverages-ai-to-improve-fmc-broadband-reliability.html

[11] https://www.gsma.com/futurenetworks/wiki/ai-based-network-failure-root-cause-analysis-solution-kt/

[12] See Analysys Mason's AI in telecoms: a strategic guide for operators and vendors. https://www.analysysmason.com/research/content/articles/ai-telecoms-strategic-guide/

[13] Ibid.

[14] https://www.cisco.com/c/en/us/solutions/collateral/enterprise-networks/denso-case-study.html

[15] https://developingtelecoms.com/telecom-technology/customer-management/14812-ooredoo-qatar-focuses-on-customer-experience-with-new-partnership.html

[16] https://www.enterpriseitnews.com.my/optimising-operations-and-innovation-with-data/

[17] https://www.splunk.com/en_us/products/it-service-intelligence.html

[18] https://www.splunk.com/en_us/pdfs/resources/e-book/forging-the-future.pdf

[19] https://www.juniper.net/gb/en/customers/2024/expert-case-study.html

3.3 Configuration fidelity

The issues discussed in the previous section all relate to causes beyond the direct control of the network operator. However, human error within the operator is a significant potential source of network disruption, especially through the mismanagement of network configuration.

Network configuration is the process of arranging a network's settings, controls and policies to support interaction between the devices and systems that make up the network.[20] Network configuration settings define how different networks, and the pieces of equipment within those networks, talk to each other. While a key aspect of configuration fidelity is ensuring that network settings are generally consistent with technical policies, it is critically important that those settings are correctly defined or amended, otherwise the operation and performance of the network(s) will be affected, potentially severely.

The capabilities of AI are well suited to avoiding network configuration errors. AI can analyse and recommend the optimal configuration settings for a network, considering different equipment types from different vendors and evaluating the correctness of a configuration to ensure operational integrity. Since numerous errors arise due to the scale of modern communications network, a key application for AI would be to inspect the configuration of each individual network element, and highlight where the required configuration has not been implemented.

3.4 Predictive maintenance

AI has the potential to stop maintenance failures in the network before they occur. Again, building on the data generated by the network (see above), and coupled with additional data provided by sensors on power supplies, cooling functions and other assets, AI can learn and predict when maintenance-related failures are likely to occur. This is a key application of discriminative AI: by analysing large amounts of existing data, AI can recognise the patterns that led to previous maintenance-related failures. Some progressive failures in the network can include: degradation of radio performance due to progressive water ingress, corrosion of connections, power supply leakage, degradation of earthing integrity, etc. With access to the network's data, AI can then 'listen' to the operation of the network to identify whether those same circumstances are starting to happen again and to plan and target maintenance activities to avoid them. These systems can often then provide recommendations on the remedial activities required, sourced from a knowledge base.[21]

Some network providers are already exploring AI-powered predictive maintenance for their networks, as summarised in Figure 3.4.

[20] https://www.splunk.com/en_us/blog/learn/network-configuration.html

[21] https://blogs.cisco.com/energy/how-predictive-maintenance-works-5-steps

Figure 3.4: How network providers use AI for predictive maintenance [Source: Analysys Mason, 2025]

Example	Description
Predicting network failures on a fibre network	Verizon implemented predictive AI algorithms to forecast service-affecting network failures that would have an impact on its FiOS offering.[22]
Reduction in truck-roll breakdowns	AT&T's AI-as-a-Service platform links on-premises and cloud data with AI service providers including H2O.ai. AT&T is using the platform to develop use cases such as predicting battery failures on trucks used to service towers and other infrastructure. This resulted in annual savings of USD7 million by reducing truck breakdowns.[23]

3.5 Capacity management and planning

Similar to other use cases described above, AI systems can analyse the data on traffic flows in the network to manage capacity and predict (with high accuracy) when it should be increased. This function is critical to a good customer experience, to mitigate against a material slowdown during busy periods. AI can analyse current traffic data and form predictions based on previous traffic patterns, providing guidance as to when the capacity of the network should be increased (i.e. increasing the number or size of switches, routers, radio channels, antenna ports and other network assets). Not only do these features help to ensure a good customer experience, but they can also help to manage the cost of accommodating continuous upgrades to the network in the face of ever-increasing traffic. Some network operators are already making use of this capability of AI, as summarised in Figure 3.5.

[22] See Analysys Mason's *AI in telecoms: a strategic guide for operators and vendors* https://www.analysysmason.com/research/content/articles/ai-telecoms-strategic-guide/

[23] https://h2o.ai/case-studies/att-transformed-into-an-ai-company-with-h2o-ai/

Figure 3.5: How network providers use AI for capacity management and planning [Source: Analysys Mason, 2025]

Example	Description
Increase in capacity planning accuracy	Indosat Ooredoo Hutchison uses AI for network capacity management, including capacity planning. Capacity planning accuracy used to be 75–80% when done manually. With AI/ML, this has increased to almost 98%.[24]
Controlling network congestion to deliver good customer experience	Telenet is driving its "amazing customer experiences" campaign with the help of Sandvine's Application and Network Intelligence portfolio to control network congestion and create high-quality experience across its network.[25]
Real-time analytics for network capacity planning	As part of its new strategic deal with Google Cloud, Bell Canada will be using Google's AI capabilities to gain valuable insights using real-time data analytics of the network, which can be used to improve service assurance and assist with network capacity planning.[26]

3.6 Capex optimisation

AI can support communications network providers in their capex planning activities. The application combines granular data from multiple sources in the network and the wider operation of the communications provider to generate targeted recommendations for capex investment. This allows limited capex reserves to directed where they will have most impact: either improving the quality of service of existing network coverage, or pushing network coverage out into new areas. Some examples of AI-enabled capex optimisation are included in Figure 3.6.

Figure 3.6: How network providers use AI for capex optimisation [Source: Analysys Mason, 2025]

Example	Description
Identification of mobile sites with greatest potential impact	Orange Spain used ML to uncover the best cell sites to invest in to improve user experience and reduce churn rates. The analysis considered the performance of individual sites based on various metrics, e.g. dropped-call rates and browsing speed.[27]
Automation to inform "smart capex" decisions	Vodafone is using AI and ML capabilities to feed information from over 300 data sources into a digital twin of the network. These analytics are being used to inform 'smart capex' decisions, helping Vodafone to reduce its capital and operating expenses. This additional automation has generated savings of over EUR500 million in capex and opex over three years.[28]

[24] https://developingtelecoms.com/telecom-business/operator-news/16926-ai-native-telco-and-techco-indosat-ooredoo-hutchison-eyes-ai-for-indonesian-digital-future.html

[25] https://www.telecomtv.com/content/network-automation/telenet-grows-4g-5g-and-wifi-networks-with-sandvine-application-intelligence-42908/

[26] https://www.bce.ca/news-and-media/releases/show/Bell-partners-with-Google-Cloud-to-deliver-next-generation-network-experiences-for-Canadians

[27] https://hellofuture.orange.com/en/improving-business-operations-through-ai/

[28] https://www.telecomtv.com/content/digital-platforms-services/vodafone-cto-network-automation-has-saved-us-500m-in-three-years-46723/

Example	Description
Identification of connectivity gaps for network expansion	Telkomsel is using Google Cloud's GenAI solution to identify locations with connectivity gaps for subsequent network infrastructure deployment.[29]
AI-powered analytics to form an infrastructure investment strategy	Globe Telecom worked with Thinking Machines to build an AI model to generate socioeconomic class (SEC) classification estimates for households. This model was fed a combination of satellite imagery, telecoms usage data and external location data. Globe Telecom used this service to make decisions on where to invest in infrastructure.[30]

3.7 Optimisation of wireless networks

While the AI use cases we have discussed so far are applicable to any type of network, wireless networks in particular stand to gain substantially from AI-enabled capabilities. Wireless networks bring significant benefits in terms of coverage, mobility and flexibility, but are characterised by the limits of the spectrum they use. Spectrum is a scarce resource and typically places constraints on the coverage and capacity of the wireless networks (in the absence of investment in additional sites). Wireless networks increasingly use multiple spectrum bands and advanced processing techniques. As this increase in complexity is only set to continue, AI is well placed to help.

AI can optimise the performance of wireless networks, so that they make the best use of the spectrum resources available to them, in the following ways:

Dynamic spectrum allocation	AI can drive dynamic allocation of spectrum resources, potentially related to different network sites or users or applications being served by the network. This approach ensures that each user and use case of the shared spectrum resource gets a good quality of service, thereby improving overall spectral efficiency. It also helps to expand the overall range of services that can be accommodated by the available spectrum, such as a mix of public and private, terrestrial and satellite network providers.
Intelligent beamforming	AI could be used to address the increasing complexity of beamforming[31] in future wireless networks (due to user mobility, elevated frequencies, and a higher number of antennas) by automatically adjusting the necessary network parameters.[32] It can also enable newer forms of intelligent radiating system envisaged for 5G Advanced and 6G such as Reconfigurable Intelligent Surfaces.
Interference mitigation	AI can be used to recommend optimal parameters for an individual base station or access point according to its specific local environment, mitigating the impact of the station's surroundings (and other sites) on wireless service quality and matching the configuration dynamically to the current traffic conditions.

[29] https://www.telkomsel.com/en/about-us/news/telkomsel-transforms-operations-and-product-offerings-google-clouds-enterprise-gen-ai

[30] https://stories.thinkingmachin.es/wealth-detection-satellite-image/

[31] Beamforming is the technique of focusing wireless signals in a particular direction, rather than radiating in multiple directions, to improve the end-users connectivity experience.

[32] https://pubmed.ncbi.nlm.nih.gov/37177563/

Some vendors and operators are already exploring how AI can boost the capabilities of wireless networks, as summarised in Figure 3.7.

Figure 3.7: How vendors and operators use AI for wireless network enhancement
[Source: Analysys Mason, 2025]

Example	Description
Faster and more reliable speeds	Nokia's Spectral Performance Management solution helped to achieve a 17% increase in spectral efficiency for Hutchison 3 Indonesia, resulting in higher-quality mobile broadband for subscribers, with faster data speeds and a more reliable service.[33]
Optimising radio network parameters	Ericsson's AI-based network optimisation solution, a part of its managed services offering, was used to enhance spectrum efficiency and throughput for KDDI by optimising radio network parameters.[34]
Radio network optimisation	AT&T and Nokia successfully trialled Nokia's near-real-time RAN Intelligent Controller (RIC) platform and xApps on AT&T's network, which uses AI/ML capabilities and will enable next-generation 5G use cases such as dynamic targeted radio network optimisation.[35]
RAN modernisation and automated network configuration	Globe Telecom is using Cellwize's AI-powered CHIME platform to establish a framework for radio access network (RAN) automation and modernisation. This implementation enables increased visibility and control of the network, automated network configuration and improved customer experience.[36]
Enterprise use of AI for wireless optimisation	REWE retail group was experiencing a large dependency on wireless client connectivity, and found that the complexity of modern enterprise networks was placing an increased workload on employees. After installing Cisco's AI Network Analytics, REWE observed that the AI-driven network automation facilitated optimised network performance, reduced workload on employees for network troubleshooting and provided better visibility of wireless device activity.[37]

3.8 Energy consumption optimisation

Our final use case of AI in communications networks is the optimisation of energy consumption. Again driven by the data available from the network, AI can support energy consumption optimisation, while maintaining high-quality service delivery to end consumers, in the following ways:

- AI can use network traffic analysis to analyse and predict when network demands will be lower and power down equipment (and supporting functions like cooling) accordingly.
- AI could be used to route traffic through those network nodes which are served by lower carbon intensity electricity (e.g. for multi-country networks, traffic can be routed through countries with a higher proportion of renewable energy).[38]

[33] https://www.nokia.com/about-us/news/releases/2018/11/05/nokia-ava-helps-hutchison-3-increase-network-efficiency-and-improve-the-customer-experience-in-indonesia/

[34] https://www.ericsson.com/en/news/2019/6/kddi-boosts-network-performance-with-ai

[35] https://www.nokia.com/about-us/news/releases/2023/03/20/nokia-and-att-leverage-advanced-intelligence-of-the-open-ran-compliant-near-real-time-ran-intelligent-controller-with-native-e2-in-successful-trial/

[36] https://www.prnewswire.com/news-releases/globe-partners-with-cellwize-and-amdocs-to-migrate-automated-network-configuration-to-the-cloud-301513639.html

[37] https://blogs.cisco.com/networking/rewe-retail-group-discusses-business-value-of-ai-ml-in-enterprise-networking

[38] https://eng.ox.ac.uk/media/jwpbeeab/elzahr23benefits.pdf

- The use of AI may also be more energy efficient than conventional computing techniques, for example in the signal processing functions of wireless networks.[39]

Energy consumption savings positively affect operators' finances and contribute to minimising carbon emissions. As the communications industry supports almost all other sectors, reducing carbon emissions in communications will help to decrease carbon emissions across the value chains of other sectors. There are several examples of AI-enabled energy consumption optimisation gains for communications networks, as summarised in Figure 3.8.

Figure 3.8: How network providers use AI to optimise energy consumption
[Source: Analysys Mason, 2025]

Example	Description
Automatic shutdown of idle equipment	Globe Telecom in the Philippines complemented its energy savings programme with an AI-based solution for shutting down idle equipment, leading to a 3–6% reduction in energy usage.[40]
'Cell sleep' technology	BT has deployed 'cell sleep' technology that saves energy at EE network sites by shutting down 4G LTE capacity carriers when capacity is not needed. Capacity requirements are predicted for each site by ML models. This technology is expected to save 2kWh per site per day or 4.5 million kWh per annum across EE's entire estate.[41]
Intelligent use of energy in network sites	Ericsson's new solution for energy efficiency in network sites uses AI-powered RAN applications and data interfacing between the RAN and power grids to optimise daily energy consumption patterns. Energy is only channelled to cell sites when and where required, optimising operations while reducing costs. Three UK reported that implementation of this solution, together with the deployment of Ericsson's energy-efficient radios, improved energy efficiency by up to 70% at selected sites.[42,43]
Vendor energy efficiency proposition	Nokia's AVA Energy Efficiency is an AI-driven energy management solution that minimises the energy consumption of RAN equipment by facilitating dynamic shutdowns of unused network elements during low-traffic periods. This solution is reported by Nokia to reduce up to 30% in energy savings, without negatively affecting performance or customer experience.[44] Deployment of this software for Safaricom Kenya is expected to result in network energy cost savings of 8–10%.[45]
'Sleep mode' technology	Deutsche Telekom recently launched an energy-saving AI RAN trial, which integrates AI into its RAN and uses dynamic "sleep mode" solutions to automatically switch off parts of the network during quiet periods, with the aim of increasing the network's energy efficiency.[46]

[39] "AI/ML-based physical layer solutions can enhance the energy efficiency of 6G networks by achieving as much as a 50% reduction in transmit power over 5G for the same bandwidth and data rate." https://www.nokia.com/bell-labs/research/6g-networks/6g-technologies/ai-native-air-interface/

[40] https://developingtelecoms.com/telecom-technology/energy-sustainability/15826-globe-uses-nokia-s-energy-efficiency-saas-to-save-power-costs.html

[41] https://newsroom.bt.com/bt-group-rolls-out-energy-saving-cell-sleep-technology-to-ee-mobile-sites-nationwide/

[42] https://www.ericsson.com/en/news/2024/6/ericsson-unveils-new-solution-for-intelligent-use-of-energy-in-network-sites

[43] https://www.ericsson.com/en/press-releases/3/2024/three-uk-and-ericsson-set-the-standard-for-smart-and-sustainable-networks

[44] https://www.nokia.com/networks/bss-oss/ava/energy-efficiency/

[45] https://www.mobileeurope.co.uk/safaricom-kenya-choses-nokias-ava-energy-efficiency-for-3g-4g-and-5g/

[46] https://www.ukfcf.org.uk/deutsche-telekom-launches-energy-saving-ai-ran-trial/

4

Barriers to adoption must be solved to realise the benefits of AI in networks

Despite the benefits of AI applications in communications networks highlighted in the previous section, there are barriers that need to be overcome before the full potential of AI in networks can be realised. These barriers are discussed in this section.

4.1 Data

The central requirement for all types of AI application is exposure to data. AI systems need data to learn (so called 'training') and to create results (so called 'inference').

Our research has shown that one of the biggest barriers to AI adoption by connectivity providers is effective access to data (and the quality of the data that is available).

While communications networks are rich sources of data, their existing data architectures are not built to capitalise on the potential of AI because they:[47]

- do not support the execution of analytic workflows and the delivery of insights in real time
- are highly siloed and fragmented, and so do not provide unified exposure of data for the creation and operations of network AI models
- require significant resource to access and prepare data, even before it can be used by AI
- are not scalable and cost efficient to store growing data volumes and support advanced analytics and AI functions, because they run 'on premises'.

These issues may be compounded by a complex landscape of legacy IT systems, and a lack of centralised understanding of how these systems and data stores relate to each other. Previous business decisions made to support business growth and to seize specific opportunities may now hinder, rather than facilitate, an organisation's ability to gain value from AI.[48, 49]

4.2 Trust

Trust is a potential issue within the 'critical infrastructure' mindset of connectivity providers, which manifests two potential sub-issues:

- Concerns over network configuration integrity: with network teams reluctant to allow AI to influence the operation of their systems (e.g. by recommending network parameters, or other network-related decisions).
- Concerns over security: including concerns over AI models from third-party external environments being allowed to work on data which is internal to the network provider.

[47] https://www.analysysmason.com/contentassets/14b9fdedcb94457dbb43f97f15da2369/analysys_mason_csp_architecture_network_oct2023_rma14.pdf

[48] https://www.analysysmason.com/about-us/news/predictions-2025/ai-business-transformation/

[49] As an indication, the Cisco AI Readiness Index found that less than a third (32%) of survey respondents from a broad range of sectors report high readiness from a data perspective to adapt, deploy and fully use AI technologies. https://www.cisco.com/c/m/en_us/solutions/ai/readiness-index.html

Any disruption in service is typically highly publicised, and is highly damaging to customer opinion and the wider reputation of the network provider. There may also be concerns about the location, security and handling of data, if the AI capability is provided by a third party.[50]

Furthermore, due to their lack of trust in AI, many operators are using a "watch and wait" approach, finding it difficult to adopt AI technology while the capabilities and use cases are expanding so rapidly.

Cisco, a provider of AI-enabled analytics services, explained that it sees a lot of caution in its customers using AI, with only a small proportion being trusting enough to use predictive AI capabilities in their networks.[51]

4.3 Skills

Related to the points above, communications network providers tend to be staffed by network experts, not data scientists and code debuggers. Their networks are generating data at an increasing rate, and they need to develop new techniques to take advantage of the insights that this data contains. But communications networks providers may not have enough of the right sort of skills to capitalise on the opportunity.[52] Furthermore, existing governance teams will need to consider new types of issues, including whether any deployment of AI is done in a secure and responsible manner.

4.4 Budget

Deployment of any new technology by an organisation requires investment, and must be shown to provide positive return on investment (ROI) to be approved by senior management. Some communications network providers are struggling to demonstrate a positive ROI for AI deployments, due to the large up-front costs and uncertainties over the magnitude of any potential benefits to network operations. This may be especially challenging when the network provider is under pressure to make other investments in network and IT infrastructure.

4.5 Regulation

Existing and proposed AI regulation could be creating barriers to the adoption of the technology by communications network providers, which may be considered to be providers of critical national infrastructure, especially as it may overlap with other regulatory frameworks (e.g. data,[53] cloud, cyber security, telecoms, energy). Such regulation may be creating barriers both explicit (e.g. by imposing a significant reporting and governance burden on the use of AI) and implicit (e.g. because it is not clear how or whether the regulations can be met).

[50] Any network operator seeking to benefit from the capabilities of cloud services may encounter similar issues.

[51] Source: interview as part of research for the project.

[52] As an indication, the Cisco AI Readiness Index found that only 31% of organisations from a broad range of sectors claim that their employees are in a high state of readiness to fully leverage AI, and nearly a quarter (24%) of survey respondents say that their organisations are under-resourced in terms of in-house staff necessary for successful AI deployment.https://www.cisco.com/c/m/en_us/solutions/ai/readiness-index.html

[53] In Cisco's 2024 Data Privacy Benchmark study, 86% of organisations say that global providers are better able to protect their data compared with local providers. This may be an important consideration when policy makers are considering data regulations that limit choice to local providers. https://www.cisco.com/c/en/us/about/trust-center/data-privacy-benchmark-study.html#~about-the-study

5

Policy makers have a range of tools to encourage the adoption of AI in networks

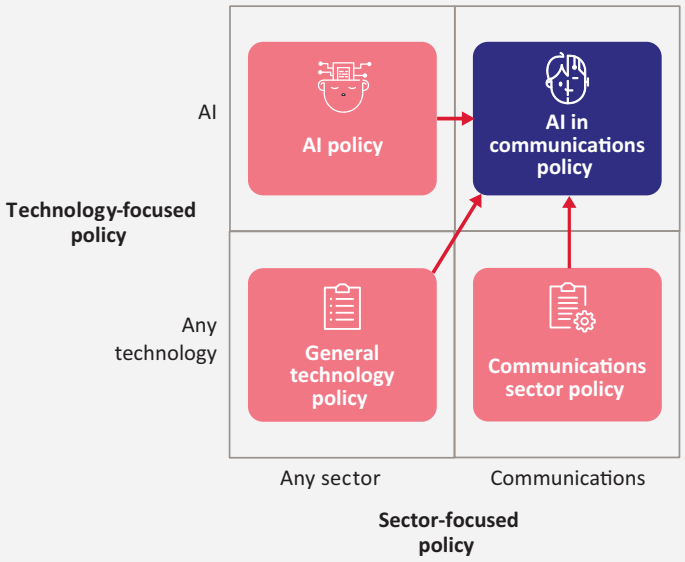
In the preceding sections, we initially explored the various benefits that AI can bring to communications networks, and subsequently highlighted several barriers that may be holding back AI implementation. In this section, we present a range of tools that policy makers can use to help overcome these barriers and realise the benefits of AI in communications.

Some jurisdictions (whether national or regional) already have some form of AI-related, and/or communications-related, policies. There is an opportunity for policy makers to bring these elements together, to define policy specifically for AI in communications, because:

- communications networks are a critical foundation of all digital transformation goals; and
- the high-tech nature of communications makes it a natural first step for more sector-specific AI policy actions, which can lead the way for implementation in other sectors.

Existing policy can be tailored to focus on AI in communications, as shown in Figure 5.1.

Figure 5.1: Illustration of how existing policy can be targeted at AI in communications
[Source: Analysys Mason, 2025]



Overall, the priority of policy makers should be ensuring that populations continue to enjoy the benefits of digital connectivity, whilst ensuring that the communications sector remains a healthy and thriving industry.

In the following sections, we discuss recommendations for policy makers under four high-level themes: engage, facilitate, implement and intervene. These themes are designed to give a framework of actions to inform a comprehensive policy strategy for AI in communications.

5.1 Engage: continual assessment of industry status

Policy makers have an important role in providing leadership and guidance to industries to support positive economic growth and societal outcomes. If policy makers demonstrate interest and confidence in a new technology, then industry stakeholders will also feel more confident in implementing that technology. Such activities can be helpful in tackling some of the trust issues that are apparent in communications network teams today.

A useful first step would be for policy makers to set up a market monitoring function to monitor and publish developments in AI for the communications space. This monitoring should include developments from their own jurisdiction, and also from other jurisdictions, so that best practice from across the globe can be highlighted. This activity is also a critical foundation for other policy activities, to make sure that further actions are tailored to the current and future status of this rapidly changing area.

Figure 5.2 shows examples of AI market monitoring initiatives, though these are not specific to communications. There is an opportunity to focus these initiatives on the intersection of AI and communications, or to take lessons from these examples in setting up new dedicated initiatives.

Figure 5.2: Examples of AI market monitoring initiatives [Source: Analysys Mason, 2025]

Example	Description
Analytical study of the AI sector	• The UK government commissioned an analytical study of the AI sector in 2022, in line with the aims of the National AI strategy to strengthen the UK's role as a global AI leader. • Another study was commissioned in 2023 to assess the changes and developments since the previous study. • The study served to increase understanding of the sector, enable the government to monitor AI developments over time and evaluate interventions to best support sector growth.[54]

[54] https://www.gov.uk/government/publications/artificial-intelligence-sector-study-2023/artificial-intelligence-sector-study-2023

Example	Description
Monitoring of Critical and Emerging Technologies	• The Critical and Emerging Technologies (CETs) list was produced to highlight advanced technologies that are potentially significant to US national security. • The list is intended to be used to inform future efforts that promote technological leadership, advance and maintain technological advantages, develop, design and govern CETs in a beneficial manner for society and develop measures to respond to threats to US security. • AI is listed as a CET. Subfields within AI that are listed include: ML; DL; reinforcement learning; sensory perception and recognition; AI assurance and assessment techniques; foundation models; GenAI systems and LLMs; synthetic data approaches for training, tuning and testing; planning, reasoning and decision making; technologies for improving AI safety, trust, security and responsible use.[55]
Annual white paper on information and communications	• This white paper is released annually by the Ministry of Internal Affairs and Communications in Japan, with the aim of highlighting the current state of information and communications in Japan and related policy trends in telecoms. • The precise focus of each paper differs annually, but the general tracking and monitoring of developments in communications (including AI) and policy trends is consistent. • The 2023 edition outlines advancements in the field of AI, namely GenAI, and uses this to guide policy initiatives around data utilisation (e.g. develop an AI usage environment).[56]

Policy makers should establish a dedicated market monitoring function, covering developments in AI for communication in both their own jurisdiction and those from elsewhere. The function should consider both current and future trends, and gather intelligence via multiple methods (e.g. desk research, professional advisers, interviews and conversations, conferences). Policy makers should aim to engage with multiple stakeholders as part of the monitoring (and as a foundation for the next action), across industry, academia and other policy makers. Regular outputs should be created (e.g. an annual report or white paper). This activity forms a critical foundation for other policy actions. Furthermore, publishing this analysis will help to provide some confidence in the use of AI for all communications network providers, helping to address issues of trust.

5.2 Engage: convene industry stakeholders

Building on the monitoring activity in the first recommendation, policy makers can play an important role in convening communications industry stakeholders, to share knowledge and best practice as they progress the deployment of AI for communications networks. Policy makers are ideally suited to bring together a wide range of different stakeholders, including themselves (both governments and regulators), network providers, technology vendors, representatives of end users and academics. Once formed, these stakeholder networks can meet on a regular basis to discuss lessons learnt and success stories on their AI journeys.

[55] https://www.govinfo.gov/content/pkg/CMR-PREX23-00185928/pdf/CMR-PREX23-00185928.pdf

[56] https://www.soumu.go.jp/johotsusintokei/whitepaper/eng/WP2023/pdf/00_fullversion.pdf

As shown in Figure 5.3, there are some examples of initiatives to convene technology industry stakeholders. As with many of the other areas of policy recommendation in this section, where initiatives exist, they should be tailored to focus on the intersection of AI and communications. Where they do not exist, they should be created.

Figure 5.3: Examples of initiatives to convene technology industry stakeholders
[Source: Analysys Mason, 2025]

Example	Description
The UK Telecoms Innovation Network (UKTIN)	The UKTIN is a network formed in 2022 which is funded by a UK government department, and serves to bring together various stakeholders across the UK telecoms sector, including academics, government stakeholders, regulatory bodies and industry experts. The network convenes expertise across various specialisms to promote collaboration between different organisations, with a goal to transform the telecoms innovation landscape and shape the delivery of government policy based on the needs of all parties.[57]
Telecoms Supply Chain Diversification (TSCD) Advisory Council	The TSCD Advisory Council is a committee of members which provide advice to the UK government regarding telecoms diversification, specialising in the implementation of the 5G Supply Chain Diversification Strategy. The Council will advise on priorities, opportunities and challenges related to diversification, provide a forum for dialogue between various stakeholders and share relevant research and expertise with the government.[58]
National Telecommunications and Information Administration	The NTIA is the Executive Branch agency within the US Department of Commerce which advises the President on telecoms and information policy.[59] The NTIA establishes advisory committees, such as the Commerce Spectrum Management Advisory Committee,[60] which bring together stakeholders across governments, technology developers, academia, service providers and customers in order to provide advice on relevant policy issues.
Trusted Information Sharing Network (TISN)	The TISN is an initiative introduced by the Australian government which convenes a wide range of industry stakeholders to enhance the security and resilience of critical infrastructure. Stakeholders brought together by the TISN include telecoms operators, academics, research institutes, supply chain entities and government bodies. The TISN's activities include online webinars, site visits and in-person workshops to build awareness, implement appropriate strategies and inform future policy in this area.[61]

[57] https://uktin.net/about/strategic-groups

[58] https://assets.publishing.service.gov.uk/media/6440f2388b86bb0013f1b610/Telecoms_Diversification_Advisory_Council_-_Terms_of_Reference.pdf

[59] https://www.ntia.gov/page/about-ntia

[60] https://www.ntia.gov/sites/default/files/csmac_charter.pdf

[61] https://www.cisc.gov.au/how-we-support-industry/partnership-and-collaboration/trusted-information-sharing-network

Example	Description
GovTech's industry collaboration initiative	GovTech is the lead agency responsible for driving the Smart Nation initiative in Singapore.[62] GovTech's initiatives include collaborations with government bodies to facilitate digital government transformation, as well as collaboration and engagement with industry stakeholders to refine processes and share best practices. Collaboration events include closed-door discussions with industry partners and public-private collaborative events to spur innovation, such as the AI Trailblazer event which aimed to spur AI adoption.[63]

Policy makers should convene industry stakeholders to share knowledge and best practice, including lessons learnt and success stories, on their journeys to implement AI in communications networks. These stakeholders should include governments, regulators, network providers, technology vendors, end-user representatives and academics. Policy makers should define the structure of the convened stakeholders, potentially into specific sub-groups that can focus on different elements of AI in communications. Groups should be multi-stakeholder, open and inclusive, to create an environment for effective knowledge sharing. Each group should meet regularly (e.g. quarterly) online and in person, and have a clearly defined remit and/or goals for what research, thinking and/or advice is being developed. Outputs could include an inception document and regular (e.g. annual) update reports. This activity will foster collective confidence among stakeholders (addressing trust issues), while the sharing of knowledge and success may help to tackle problems with data management and securing budget.

5.3 Facilitate: guidance on best practice

Building on the monitoring and convening activities in the previous two recommendations, one of the best 'levers' that policy makers have to shape the evolution of markets is to provide guidance on best practice. This guidance should be based on an in-depth analysis of the issues associated with particular use cases and/or barriers. Some initial ideas for where best-practice guidance could be developed include:

- Guidance on data management in the context of *network anomaly detection:* to alleviate issues with the collection, storage and processing of data, which is critical to realise the full benefits of this use case.
- Guidance on risk management in the context of *configuration fidelity:* to alleviate the issues with trust which may be present in some network teams, and may be holding back the deployment of this use case.

A number of policy initiatives seek to promote effective use of AI, sometimes also including data management, as shown in Figure 5.4. These initiatives could be adapted to focus on communications networks (or provide inspiration for new initiatives).

[62] https://www.tech.gov.sg/about-us/who-we-are/

[63] https://www.tech.gov.sg/products-and-services/collaborate-with-us/industry-collaboration/

Figure 5.4: Examples of initiatives to provide guidance on AI best practice
[Source: Analysys Mason, 2025]

Example	Description
Pro-innovation approach to AI regulation and provision of guidance	In March 2023, the UK government proposed its pro-innovation approach to AI regulation.[64] This regulatory framework sets out five principles which apply to the UK's existing regulators, providing them with guidelines to apply within their sector-specific remits. The UK's 2025 AI Opportunities Action Plan also contains recommendations for the government to: issue guidance on best practice on releasing open government datasets to be used for AI, including data dissemination methods; ensure sponsor departments issue guidance to regulators with a focus on enabling safe AI innovation; and issue guidance on best practice, as well as case studies and results, through a single 'AI Knowledge Hub'.[65]
Model AI Governance Framework for Generative AI	This framework, developed by the regulator in Singapore, encourages AI developers to undertake data quality control measures to expand the pool of trusted, high-quality datasets. The framework also promotes the importance of third-party testing and assurance, as well as transparency in approaches and methodologies used in model development.[66]
AI Risk Management Framework	The US AI Risk Management Framework is a voluntary framework for AI designers, developers and deployers to aid the understanding, management and mitigation of the risks of AI systems. The framework outlines the various risks related to AI, and highlights four key mechanisms by which organisations can address AI risks in practice: govern, map, measure and manage. Central to each of the four actions is the focus on improving the trustworthiness of AI systems.[67]
Voluntary AI safety standard	The Australian Department of Industry, Science and Resources set up a Voluntary AI Safety Standard to promote consistent AI best practices when developing and using AI. The standard contains 10 guardrails, which apply to all organisations throughout the AI supply chain, to provide guidance on the safe and responsible use of AI. The guardrails include establishing accountability, risk management and data governance measures, as well as promoting transparency, human intervention and testing and evaluation.[68]
Advancing the development and adoption of AI standards	The Pan-Canadian National AI Strategy contains three pillars, one of which is the development of AI standards. The Government of Canada is supporting the Standards Council of Canada in efforts to promote the development and adoption of AI standards ensuring the responsible and safe use of AI, whilst also aligning with Canada's priorities to support the Canadian economy.[69] CAD8.6 million will be provided to the Standard Council of Canada to advance the development of these standards, as well as a conformity assessment programme related to AI.[70]

[64] https://www.gov.uk/government/publications/ai-regulation-a-pro-innovation-approach/white-paper#part-3-an-innovative-and-iterative-approach

[65] https://www.gov.uk/government/publications/ai-opportunities-action-plan/ai-opportunities-action-plan

[66] AI Verify Foundation and Infocomm Media Development Authority (2024), https://aiverifyfoundation.sg/wp-content/uploads/2024/05/Model-AI-Governance-Framework-for-Generative-AI-May-2024-1-1.pdf

[67] National Institute of Standards and Technology, U.S. Department of Commerce (2023), *Artificial Intelligence Risk Management Framework (AI RMF 1.0)*.

[68] https://www.industry.gov.au/sites/default/files/2024-09/voluntary-ai-safety-standard.pdf

[69] https://ised-isde.canada.ca/site/ai-strategy/en#pillar2

[70] https://www.canada.ca/en/innovation-science-economic-development/news/2022/06/government-of-canada-launches-second-phase-of-the-pan-canadian-artificial-intelligence-strategy.html

Policy makers can play a facilitating role and help to develop 'soft' instruments to *encourage* implementation of AI in communications, rather than setting *requirements* for how AI should be implemented. There are two broad types of instrument:

- *Frameworks*, which include guiding principles of best practice, developed from success stories within industry.
- *Standards*, which should be used sparingly to avoid constraining innovation, but may be important for interoperability between different technologies and vendors.

These instruments should be developed across the key themes of successful AI implementation, which are: security (including security by design), safety and risk management, data management, transparency and accountability. This area of initiative will help to directly tackle some of the key barriers to adoption of AI in communications, including issues with data management and trust.

5.4 Facilitate: ensure AI skills are available for communications, now and in the future

The lack of appropriate skills within providers of communications networks is a potential barrier to the successful implementation of AI. Skills that are likely to be needed include those around general AI literacy, data science and management, and more specific AI-related skills like prompt engineering.[71] Policy makers typically have a role in promoting skills development, and there are some examples of policies relating to developing AI skills (see Figure 5.5). Some skills initiatives will take time to come to fruition, so policy makers should consider a range of immediate actions, including mapping the skills that will be needed by communications providers, attracting currently available skilled resources (e.g. from other countries and/or sectors), and setting in motion skills development for the future (e.g. AI training in schools and later education).

Figure 5.5: Examples of policy initiatives to develop AI skills [Source: Analysys Mason, 2025]

Example	Description
National Artificial Intelligence Strategy	A key action outlined in the Singapore National Artificial Intelligence Strategy 2.0 is the implementation of AI training programmes, with the aim of boosting the AI practitioner pool to 15 000. Initiatives in this category include redesigning the AI Apprenticeship programme to increase the number of apprentices trained, implementing pre-employment training to scale up the AI talent pipeline and encouraging sector leads to develop appropriate AI training programmes to help workers acquire the relevant skillsets needed for AI.[72]

[71] https://www.cisco.com/c/dam/m/ai-enabled-ict-workforce-consortium/report.pdf

[72] Smart Nation Singapore (2023), https://file.go.gov.sg/nais2023.pdf

Example	Description
Smart Nation Initiative	The Singapore Smart Nation 2.0 initiative is an updated report summarising Singapore's key efforts to harness digital technologies to improve the lives of citizens. Included within these efforts is a strong emphasis on AI training; Singapore aims to triple its AI practitioner pool over the next five years, with support from an investment of over SGD20 million which will be used to enhance AI practitioner training for students, and offer AI scholarships and internships. AI upskilling opportunities will be offered to recent graduates, AI-specific courses will be offered to those with job roles affected by AI and AI modules will be offered in both primary and secondary schools to strengthen students' AI skills.[73]
Subsidising of AI training costs	The UK Department for Science, Innovation and Technology announced a GBP7.4 million pilot scheme to subsidise the cost of AI skills for SMEs, promoting investment by employers in AI training.[74]
Support to businesses to integrate AI	The Australian government has announced AUD101.2 million of funding will be used to support businesses to integrate AI and quantum technologies into their operations. Of this amount, AUD41.2 million is specifically allocated to AI, aimed at supporting responsible deployment and funding businesses to support SMEs with no AI expertise to adopt AI technologies.[75]
AI graduate training programme	Australia's AI Action Plan outlines a direct action to boost AI talent by training AI graduates. AUD24.7 million will be provided through the Next Generation AI Graduates programme to offer at least 234 targeted scholarships and train AI students on relevant industry projects. These graduates will help to expand the pool of AI specialists, addressing the current shortage.[76]
Funding support for AI research and talent	The second phase of the Pan-Canadian National AI Strategy is centred around enhancing Canada's AI research base and talent pool. CAD160 million in funding will be provided to the Canadian Institute for Advanced Research (CIFAR) to promote the development of academic research talent and maintain training centres in the national AI institutes. An additional CAD48 million will be provided for CIFAR to upgrade its advanced training and knowledge mobilisation programmes, and CAD40 million will be funded to provide dedicated computing capacity for AI researchers.[77]

[73] Smart Nation Singapore and Ministry of Digital Development and Information (2024), https://file.go.gov.sg/smartnation2-report.pdf

[74] https://www.gov.uk/government/publications/flexible-ai-upskilling-fund/ai-upskilling-fund-application-guide

[75] https://www.industry.gov.au/news/investments-grow-australias-critical-technologies-industries

[76] https://wp.oecd.ai/app/uploads/2021/12/Australia_AI_Action_Plan_2021.pdf

[77] https://www.canada.ca/en/innovation-science-economic-development/news/2022/06/government-of-canada-launches-second-phase-of-the-pan-canadian-artificial-intelligence-strategy.html

Policy makers should consider the need for AI-related skills among communications network providers to effectively overcome any associated barriers. Policy makers should start with a mapping of what skills are needed and where, within communications providers in their jurisdiction. Immediate actions to help with the issues associated with current skills shortage include government-supported training programmes and promoting the benefits of AI training to network providers. Financial incentives, such as tax benefits, could also be provided. Actions for the future could include ensuring that university courses feature the confluence of AI and connectivity, i.e. AI courses include communications modules and electronic communications courses include AI. And finally, it is likely to be good practice to publish the budgets set aside for skills development, as it demonstrates a strong commitment to the industry.

5.5 Implement: effective targeting of R&D programmes

Government-funded research and development (R&D) programmes are a well-established method for policy makers to support the development of new technologies. They allow new technologies and techniques to be investigated, with the government assuming part of the commercial risk. Government-funded R&D is well suited to exploring how AI can be successfully implemented in communications networks and the outputs can feed into other policy action areas, such as guidance on best practice and the need for new skills.

Similar to other policy areas, existing R&D programmes may benefit from tailoring to address the specific integration of AI in communications. Some examples of general-AI R&D programmes are given in Figure 5.6, while examples of communications-focused R&D programmes are given in Figure 5.7.

Figure 5.6: Examples of existing R&D programmes focusing on AI [Source: Analysys Mason, 2025]

Example	Description
Smart Nation initiative	The Singapore Smart Nation 2.0 initiative includes the intention to invest up to SGD120 million as part of an 'AI for Science' initiative.[78] The fund is expected to support the development of new tools and techniques that can be applicable across a wide range of scientific domains.[79]
National Artificial Intelligence Initiative Act	The US National Artificial Intelligence Initiative Act asks the National Science Foundation (NSF) to fund AI-related research and education activities. The NSF should engage with other institutions to share knowledge and identify emerging AI research needs, ensure sufficient access to research infrastructure for AI systems and conduct AI research funded through existing NSF programmes. The NSF should also award grants for AI research within a number of specified areas, including research related to machine learning, AI-enabled systems, research that will advance AI systems or that will contribute towards the development of trustworthy AI.[80]

[78] Smart Nation Singapore and Ministry of Digital Development and Information (2024), https://file.go.gov.sg/smartnation2-report.pdf

[79] https://www.crnasia.com/news/2024/ai/ai-at-the-core-of-singapore-smart-nation-2-0-strategy

[80] 116th Congress (2020), https://www.congress.gov/bill/116th-congress/house-bill/6216

Example	Description
National Science Foundation investment in AI research	The US National Science Foundation Directorate for Engineering invests in AI-related research. In this initiative, the Directorate is encouraging the submission of proposals for all types of research and education related to AI.[81]
Multi-country research funding	Horizon Europe is the primary EU research funding programme, which allocated EUR2.6 billion to AI R&D in 2021–2022.[82] More recently, a new set of calls were launched in April 2024 to provide funding of up to EUR112 million towards research in AI and quantum technologies.[83]
Research to improve economic productivity	UK Research and Innovation is sponsoring 98 projects using AI to improve productivity across the economy. Amongst these are projects in the construction, healthcare, transport, manufacturing and retail industries.[84]
Funding support for AI research projects	The Australia AI Action Plan outlines several programmes providing funding for AI research projects, including the Cooperative Research Centres Projects programme, which offers funding for short-term research to develop new technologies such as AI, and the Australian Research Council Linkage programme which promotes research partnerships involving AI. Additionally, AUD20 million has also been provided to establish the Centre for Augmented Reasoning at the University of Adelaide, to support AI research through PhD scholarships.[85]
EU Competitiveness Compass	The 2025 EU Competitiveness Compass contains several R&D initiatives to boost competitiveness by closing the innovation gap in new technologies. Such initiatives include: the AI Continent Strategy, part of which will focus on the establishment of AI factories dedicated to research for developing and improving AI models; the European Innovation Act, which will enable innovative companies to access European research and technology infrastructure; and the European Research Area Act, which will strengthen R&D investment and focus research support more on strategic priorities.[86]
EU InvestAI initiative	In 2025, the EU launched the InvestAI initiative, to mobilise EUR200 billion for investment in artificial intelligence. The initiative includes a EUR20 billion fund for AI gigafactories, which will specialise in training the most complex AI models, using around 100 000 of the latest AI chips. InvestAI also includes a layed approach to funding, which aims to reduce the risk faced by other investment partners.[87]

[81] https://www.nsf.gov/funding/opportunities/dcl-funding-opportunities-engineering-research-artificial

[82] https://digital-strategy.ec.europa.eu/en/policies/european-ai-research

[83] https://digital-strategy.ec.europa.eu/en/news/new-horizon-europe-funding-boosts-european-research-ai-and-quantum-technologies

[84] https://www.ukri.org/news/ai-projects-backed-by-32-million-to-turbocharge-productivity/

[85] https://wp.oecd.ai/app/uploads/2021/12/Australia_AI_Action_Plan_2021.pdf

[86] European Commission (2025), https://commission.europa.eu/document/download/10017eb1-4722-4333-add2-e0ed18105a34_en

[87] https://ec.europa.eu/commission/presscorner/detail/en/ip_25_467

Figure 5.7: Examples of existing R&D programmes focusing on communications
[Source: Analysys Mason, 2025]

Example	Description
6G research, trials and innovation	The EU Smart Networks and Services Joint Undertaking is funding EUR130 million towards 27 projects focused on 6G research, trials and innovation.[88]
Research into space-based communications	The UK Space Agency is investing GBP10 million to boost innovation in telecoms services, ranging from satellite components to ground network systems. This is a funding competition in which applicants will bid for investment. The competition supports projects by UK companies, enabling them to broaden their range of innovative products, components, systems or services.[89]
5G testbed and trials programme	The 5G Testbeds and Trials programme is the UK government's nationally co-ordinated programme of investment in 5G. This programme funded the integration of three university 5G testbeds to provide the UK's first end-to-end 5G network. The 5G programme is also providing GBP30 million in funding to diversify the supply market for radio equipment, GBP1.6 million towards a neutral host Open RAN testbed and up to GBP4 million of R&D funding to projects exploring pilots to connect the hardest-to-reach areas of the UK.[90]

Government-sponsored R&D programmes focusing on AI in communications are an effective way to explore new technologies and techniques while mitigating commercial risk. This technique can tackle multiple barriers, including those associated with data, trust and budget. When creating an R&D programme focused on AI in communications, policy makers first need to define the overall goals of the funding. These goals could be linked to how that funding is spent: funding of AI infrastructure to support innovative and unconstrained research, funding available for partnerships and collaborations (including universities), and funding of research into specific AI tools and techniques. Furthermore, project award criteria should be clearly defined to select projects according to the goals of the programme. Just as with skills development, policy makers should consider clearly publishing the budget set aside for such R&D programmes. This transparency can attract applications for funding and demonstrate the commitment of policy makers to AI in communications.

5.6 Implement: use of AI in government networks

The beneficial AI-enabled applications described above are applicable to both operators of fixed and mobile telecoms infrastructure, and to organisations that overlay their own networks on this infrastructure. Many governments and their departments operate their own networks, which provides an opportunity for them to implement AI in those networks. This would allow governments to apply some of the insights and best practices gained from their involvement in the initiatives recommended above, and to show leadership in the implementation of AI for communications.

[88] https://digital-strategy.ec.europa.eu/en/news/6g-research-gets-eu130-million-eu-funding-boost-europe

[89] https://www.gov.uk/government/news/new-funding-to-put-the-uk-at-heart-of-next-generation-telecommunications-services

[90] https://www.gov.uk/guidance/5g-testbeds-and-trials-programme

There are several examples of governments welcoming the use of certain technologies by their departments, including 'cloud first' policies (promoting the use of cloud services) and some examples that consider the use of AI (see Figure 5.8). There is an opportunity for governments to build on such policies and deploy AI in their networks.

Figure 5.8: Examples of policies to manage use of AI by government [Source: Analysys Mason, 2025]

Example	Description
Policy for safe and responsible AI in government	This policy from the Australia Digital Transformation Agency aims to ensure that the government plays a leading role in embracing AI to benefit Australians, whilst also ensuring safe, ethical and responsible use of the technology. This includes providing a unified approach for government use of AI, strengthening public trust in government use of AI and putting forward an adaptive approach that is designed to develop over time. The policy includes mandatory requirements (e.g. designate accountability for implementation of the policy, engage in whole-of-government forums), recommended actions (e.g. implement AI fundamentals training for all staff), and actions to consider (e.g. develop an internal register of where and how AI is being used within agencies).[91]
AI pilots to address vulnerabilities in government networks	The US Department of Defense and DHS conducted AI pilots to address vulnerabilities in government networks, to enhance national security of vital government systems.[92]
Use of AI to enhance resilience of government network	The US Defense Intelligence Agency (DIA) is in the process of updating the Joint Worldwide Intelligence Communication System (JWICS, the Pentagon secure network) with the aim of increasing resilience to outages. As part of this modernisation process, the DIA is also enhancing the cyber security and automation of the network. AI will be used to help enhance the monitoring of network traffic and automate the identification of anomalies and errors before they cause serious consequences, as well as contribute towards automated network cyber security.[93]
Report on the use of AI in government	The report "Use of AI in Government" by the UK National Audit Office contains survey results highlighting key use cases of AI in the UK government. Amongst these, the top-four use cases were: to support operational decision-making, to support research or monitoring, to improve internal processes and to provide a public service/engage with the public.[94]

The benefits of AI are just as applicable to the networks operated by governments as they are to other network providers. Governments have the opportunity to lead by example by incorporating AI into their networks, building on any policies that already consider the use of AI by government departments, and the AI in communications policy initiatives discussed above. Subject to any concerns over security and sensitive information, government network operators using AI should share the results of AI implementation, either publicly or with trusted industry stakeholders.

[91] https://www.dta.gov.au/news/our-next-steps-safe-responsible-ai-government

[92] https://bidenwhitehouse.archives.gov/briefing-room/statements-releases/2024/10/30/fact-sheet-key-ai-accomplishments-in-the-year-since-the-biden-harris-administrations-landmark-executive-order/

[93] https://breakingdefense.com/2024/10/dia-almost-done-with-jwics-tech-refresh-goal-to-enhance-network-resiliency/

[94] https://www.nao.org.uk/wp-content/uploads/2024/03/use-of-artificial-intelligence-in-government.pdf

5.7 Intervene: incentives to invest

One of the barriers to successful deployment of AI in communications is securing budget for the necessary investment in innovation when the ROI is uncertain or choices have to be made between business priorities. Policy makers have an opportunity to intervene here, by providing incentives to make such investments. There is precedent for these types of interventions (see Figure 5.9), and it is possible that even modest financial support could be enough to tip the balance and unlock more AI deployments.

Figure 5.9: Examples of financial incentives to encourage use of certain technologies
[Source: Analysys Mason, 2025]

Example	Description
Tax relief on fibre networks	The UK Telecommunications Infrastructure Act enabled 100% relief from business rates for operators in England and Wales that install new fibre on their networks.[95]
Tax incentive for construction of 5G systems	A tax incentive was introduced in Japan for the construction of safe and reliable 5G systems. The tax revision involves a 15% tax credit in relation to acquisition cost, or a 30% special depreciation[96] on eligible facilities (e.g. transmitters, receivers, antennas, etc), reducing a company's taxable income to encourage investment.[97,98]
Tax incentive for businesses developing new technologies	The Canada Federal Government introduced the Scientific Research and Experimental Development (SR&ED) tax incentive to reduce payable income tax for businesses engaged in scientific research and experimental development, such as AI/ML, in order to promote R&D. Eligible work must be conducted "for the advancement of scientific knowledge or for the purpose of achieving a technological advancement", and must be a "systematic investigation or search that is carried out in a field of science or technology by means of experiment or analysis". Basic investment tax credit rate is 15% of qualified expenditure (e.g. for large corporations) and the enhanced rate is 35%.[99]
Tax incentives for eligible R&D activities and also for early-stage investors	The Australian government offers two forms of incentive: • 1) R&D tax incentive offers tax offsets for companies engaging in eligible R&D activities (over AUD2.5 billion to over 11 000 businesses each year)[100] • 2) Tax concessions to investors in eligible Early-Stage Innovation Companies Both initiatives are referenced as foundational policy settings in Australia's AI Action Plan.[101]

[95] https://bills.parliament.uk/bills/2014

[96] Special depreciation refers to accelerating the depreciation of the 5G network, which reduces a company's income tax, and therefore its tax liability, encouraging investment

[97] https://globaltradealert.org/intervention/101751

[98] https://www.soumu.go.jp/johotsusintokei/whitepaper/ja/r02/html/nd112340.html

[99] https://www.canada.ca/en/revenue-agency/services/scientific-research-experimental-development-tax-incentive-program/what-are-sred-tax-incentives.html

[100] https://business.gov.au/grants-and-programs/research-and-development-tax-incentive/overview-of-rd-tax-incentive

[101] https://wp.oecd.ai/app/uploads/2021/12/Australia_AI_Action_Plan_2021.pdf

Example	Description
Grant funding and equity finance competition incentive	Innovate UK (UK) piloted several Investment Accelerator Competitions which match grant funding with private equity finance, in order to boost venture capital investment in eligible projects and remove the need to find match funding. The incentive is centred around the provision of funding for a designated proportion of project costs, or a specified investment commitment across a range of early-stage eligible projects in key growth areas, spanning smart infrastructure, advanced manufacturing, connected transport and digital technology.[102]
Blended grant funding and investment incentive for innovation start-ups	The European Innovation Council (EIC) Accelerator is a programme under Horizon Europe offering blended funding support to early-stage companies providing innovative services or products. A combination of up to EUR2.5 million in grant funding and from EUR500 000 to EUR10 million in investment funding is available for projects spanning various sectors, including technology and telecoms.[103,104]

Policy makers should consider the option to provide incentives to invest, such as tax incentives and government-supported finance facilities, to help network providers to improve their business case for AI-related projects and to secure internal budget. Many examples of financial incentives to encourage the use and investment in certain technologies include tax relief, though this can take many forms, including full relief of certain taxes, reduced tax rates, tax credits and accelerated depreciation terms (which would typically reduce tax charges). However, as with other recommendations, it is sensible for policy makers to tie these benefits to specific policy aims, such as the use of the technology developed in the R&D programme, or the deployment of certain AI features that fit with policy goals. Public-backed finance can also improve the viability of AI investment cases, with government-supported banks able to arrange low-cost debt facilities and blended finance.

5.8 Intervene: shape outcomes

AI technology holds immense potential, and while that can include significant benefits, it is important to mitigate any potential harms associated with its use. Some regulators are already issuing binding obligations relating to the use of AI (e.g. oversight, reporting), and these may already be hindering take-up of AI by communications network providers, due to uncertainty over how or if they can be complied with.

But the field of AI, both in communications and elsewhere, is developing rapidly, and regulations should not stifle innovation and hold back some of the potential benefits. An outcomes-based approach is likely to be best, where regulation seeks to mitigate any undesirable results of AI (such as bad decisions or recommendations) rather than the specific technologies or techniques being used.

[102] https://www.gov.uk/government/publications/funding-competition-investment-accelerator-pilot/competition-brief-investment-accelerator-pilot#find-out-if-you-are-eligible-to-apply

[103] https://eic.ec.europa.eu/eic-funding-opportunities/eic-accelerator_en#what-is-the-eic-accelerator-

[104] https://eic.ec.europa.eu/eic-fund/about-eic-fund_en

This type of approach will avoid some of the pitfalls of new technology regulation, such as:

- focusing only on techniques which are well known or well publicised
- mistaking a model's power for its impact
- having to constantly update the specific provisions of a regulation in a rapidly changing business and technical environment.

Where existing regulation has already been issued, it is recommended that efforts are spent in helping the communications industry to meet that regulation, including:

- issuing sector-specific guidance for how that regulation can be met (which may be similar to the best-practice guides recommended above)
- looking for ways to collaborate and harmonise regulatory requirements with other jurisdictions to reduce duplicative compliance burdens
- ensuring that a consultative and iterative approach is used when making any amendments or additions to the regulation.

Any regulation of AI in communications should be outcomes based and forward looking, to avoid erroneously focusing on specific techniques and having to constantly update obligations. Where regulation exists, efforts should be spent on collaborating and harmonising with other jurisdictions, issuing sector-specific guidance on how regulation can be met, and using a consultative and iterative approach to any amendments or additions.

6

Overall conclusions

This paper examined how the use of AI in communications networks can contribute to wider digitalisation, economic and societal goals. AI has broad potential to deliver a range of benefits to the operation and performance of digital communications networks. Despite these benefits, there are barriers to overcome before realising the full potential of AI in communications networks.

There is an opportunity for policy makers to define policy specifically for AI in communications, to help overcome these barriers. We have presented eight recommendations for policy initiatives under four high-level themes: engage, facilitate, implement and intervene:

- Policy makers should first establish a dedicated market monitoring function. This function diligently tracks AI developments in communications both locally and worldwide, gathering intelligence through research, professional advisers, interviews and conferences. By engaging with a diverse array of stakeholders from industry, academia and other policy makers, policy makers lay a solid foundation for future actions. Regular reports and white papers not only provide valuable information but also enhance confidence in the use of AI in communications, proactively addressing trust issues.

- Recognising the power of collaboration, policy makers should then convene industry stakeholders to share knowledge and best practices. These gatherings include governments, regulators, network providers, technology vendors, end-user representatives and academics. Structured into specific sub-groups, these multi-stakeholder discussions foster an environment of effective knowledge sharing. Regular online and in-person meetings, with clearly defined goals, lead to the creation of valuable research and advice. This collective effort not only boosts confidence but also tackles challenges related to data management and securing budgets.

- To further encourage AI implementation in communications, policy makers can help to develop 'soft' instruments such as frameworks and standards. These tools should focus on key themes like security, safety, risk management, data management, transparency and accountability. These actions also help to overcome barriers relating to trust and data management.

- Understanding the importance of AI-related skills, policy makers should map the expertise needed within communications providers. They can address current skill shortages through government-supported training programmes and financial incentives. Looking ahead, they should ensure university courses integrate AI and communications modules. Publishing any government budgets for skills development signals a strong commitment to the industry.

- Government-sponsored R&D programmes are another powerful tool to encourage the use of new AI applications in communications technologies, while mitigating commercial risks. Policy makers should define clear goals for these programmes, whether it is funding new AI infrastructure, fostering partnerships, or researching specific applications. Transparent project criteria and published budgets attract innovative applications, demonstrating a steadfast commitment to AI in communications.

- Leading by example, governments can incorporate AI into their own networks, building on existing policies to foster the use of AI in general, and also on the learnings developed by the actions above. Governments can share their implementation results with trusted stakeholders to encourage other network providers to do the same.

- To directly support AI investments, policy makers can offer incentives like tax relief and government-supported finance facilities. These incentives should be tied to specific policy aims, such as using technology from R&D programmes or deploying certain AI features. These measures will enhance the viability of AI investment cases, helping communications providers to secure internal budget for their investments.

- Finally, policy makers should ensure that any AI-related regulations are outcomes based and forward looking. By avoiding a narrow focus on specific techniques, they can create a flexible regulatory environment. Harmonisation with other jurisdictions, sector-specific guidance and a consultative approach to regulatory updates ensure that the regulations remain relevant and effective.

By implementing these recommendations, policy makers can effectively foster the integration of AI in communications networks, driving innovation and ensuring a secure, efficient and sustainable digital future.

Get in touch

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www.analysysmason.com

May 21, 2025

Subject: Urgent Need for Federal Preemption of State AI Regulations

Dear Members of the Colorado Congressional Delegation,

We, the undersigned chambers of commerce and business organizations representing a diverse range of industries across Colorado, are writing to express our growing concern regarding the increasing number of proposed state-level regulations targeting the use of artificial intelligence technologies.

While we recognize the importance of addressing potential risks and ethical considerations associated with AI, the current trajectory of disparate state laws could significantly undermine innovation, economic growth, and our ability to compete on a national and global scale. Governor Polis and other elected leaders have highlighted concerns around Colorado's recent efforts to regulate AI and the impact that these regulations could have on technological innovation and investment in our state. The lack of a federal framework further complicates a complex and burdensome compliance landscape, particularly for small and medium-sized enterprises that may lack the resources to navigate varying and potentially conflicting requirements across state lines.

As you know, Colorado has enormous opportunity to leverage AI to compete in the global marketplace, via productivity gains, enhanced creativity, and allowing businesses to strategically direct financial resources in the areas that offer the greatest pathways for growth. According to the U.S. Chamber of Commerce, 42% of Colorado small businesses are using AI tools to improve their competitiveness with larger companies and 84% of the small business using AI in our state expanded their workforce and reported profit growth. In addition, modernizing government infrastructure to bring it into the AI age through a federal standard can provide pathways for businesses to offer services that make government more efficient, and demonstrate a roadmap for state and local governments. These actions are critical, as other countries are adopting national policies to promote AI adoption, especially China.

To best position our businesses for success in the 21st century, we urge you to champion federal efforts to establish consistent rules for the development and deployment of artificial intelligence technologies, preempting an emerging patchwork of state laws. A unified federal approach would foster innovation by providing businesses with a predictable regulatory environment, encourage investment, and ensure that the benefits of AI can be realized across the United States for all our citizens.

We stand ready to collaborate with you and your colleagues on crafting thoughtful and effective federal legislation.

Sincerely,

Adams County Regional Economic Partnership (AC-REP)
Colorado Bankers Association
Colorado Business Roundtable
Colorado Competitive Council
Colorado Concern
Colorado Springs Chamber and EDC
Colorado Technology Association
Denver Metro Chamber of Commerce
Jeffco EDC
Northern Colorado Legislative Alliance
South Metro Denver Chamber

June 3, 2025

The Honorable Richard Hudson
Chairman, House Energy & Commerce Subcommittee on Communications & Technology
2112 Rayburn House Office Building
Washington, DC 20515

The Honorable Doris Matsui
Ranking Member, House Energy & Commerce Subcommittee on Communications & Technology
2206 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Hudson and Ranking Member Matsui:

On behalf of the Real Estate Technology and Transformation Center (RETTC), the National Multifamily Housing Council (NMHC) and the National Apartment Association (NAA), we write to thank you for convening the upcoming subcommittee hearing, *"AI in the Everyday: Current Applications and Future Frontiers in Communications and Technology,"* and to share insight into how artificial intelligence (AI) is already shaping broadband service and access in rental housing communities across the nation.

As you examine the intersection of AI and connectivity, we urge you to consider the unique role of AI in enhancing broadband access, reliability, security and affordability for the more than 44 million Americans who call rental housing home.

AI is Improving Resident Connectivity and Network Resilience

Rental housing communities face distinct challenges in delivering reliable, high-speed internet access to residents—particularly in older buildings, high-density urban areas, or underserved communities. AI is helping housing providers and technology partners bridge these gaps by enabling:

- Predictive network optimization, where bandwidth is managed to improve performance during high-traffic periods.
- Automated device management, which ensures connectivity is seamless across dozens or even hundreds of homes within a building or community.
- Smart network design, where AI tools model infrastructure needs and guide cost-effective deployment that avoids overbuilding, all while ensuring equitable access.

These innovations are essential as more Americans rely on in-home broadband for remote work, telehealth, education, and access to other essential services.

AI is Enhancing Cybersecurity and Operational Efficiency

Rental housing communities are increasingly utilizing smart home technologies—ranging from locks to lighting to thermostats and AI is helping rental housing providers better secure IoT ecosystems within buildings. This includes:

- Real-time threat detection: AI isolates unusual behavior that could indicate network breaches or device vulnerabilities.
- Maintenance prediction: AI identifies network or equipment failures before they impact residents and minimizes downtime.

As Congress explores the future of AI policy and connectivity infrastructure, we encourage you to recognize the pivotal role of rental housing providers. Rental housing providers prioritize robust connectivity for renters and rely on this same connectivity for critical property operations. They do this all while leveraging AI and other emerging technologies to address our nation's long-term housing challenges. Specifically, we urge policymakers to:

- Support policies that preserve the existing partnership model that enables rental housing operators and communications providers to enter into agreements negotiated under free market conditions, encouraging competition, higher customer service standards, and better, faster, and more reliable internet service than what is typically available in the broader retail market.
- Prevent duplicative and fragmented AI regulations at the state and local levels. As our organizations have consistently said in the past, a fragmented regulatory approach in data management, security and technology risks stifling innovation and increasing compliance costs. This ultimately undermines the benefits these systems and technologies offer to renters and housing providers alike.
- Redouble efforts to fund and expand broadband-affordability assistance for low-income Americans, many of whom are renters, through a streamlined and improved version of the Affordable Connectivity Program (ACP).
- Engage with housing stakeholders when shaping AI and broadband infrastructure policy, ensuring solutions account for the challenges and opportunities across the rental housing landscape.

We stand ready to support the Committee as it continues this important work. Thank you again for your leadership in exploring how AI can enable modernized connectivity infrastructure to support a more connected future across rental housing.

Sincerely,

Sharon Wilson Géno
President
National Multifamily Housing Council

Bob Pinnegar
President and Chief Executive Officer
National Apartment Association

Kevin Donnelly
Executive Director and Chief Advocacy Officer
Real Estate Technology & Transformation Center

Wireless Infrastructure Association

June 3, 2025

The Honorable Richard Hudson
Chairman
Subcommittee on Communications and Technology
2112 Rayburn House Office Building
Washington, DC 20515

The Honorable Doris Matsui
Ranking Member
Subcommittee on Communications and Technology
2206 Rayburn House Office Building
Washington, DC 20515

Re: Hearing on AI in the Everyday: Current Applications and Future Frontiers in Communications and Technology

Dear Chairman Hudson and Ranking Member Matsui:

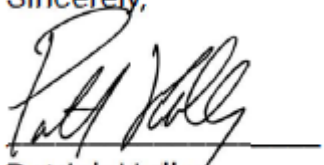
The Wireless Infrastructure Association (WIA) commends the Subcommittee for holding a hearing on the important topic of artificial intelligence (AI), including a focus on the infrastructure necessary to achieve the full capabilities of AI for American businesses and consumers. We appreciate the Subcommittee's recognition that in addition to the continued development of advanced semiconductors and the timely deployment of data centers, "[m]obile 5G and other wireless networks will also be crucial to the advancement of AI technologies by providing additional applications for AI driven, wirelessly connected devices."

Across the board, WIA's members are already using AI in numerous ways to optimize network design, planning, and operations. At the same time, consumer usage of AI-driven applications has increased exponentially in the last few years (with the vast majority of internet usage originating on wireless smartphones). And we are just scratching the surface. Testimony from NVIDIA's Ronnie Vasishta summarizes the point clearly: "In the future, mobile networks will also be called upon to support a new kind of traffic—AI traffic. AI traffic will include the delivery of AI services to the edge, or inferencing at the edge." Whether the applications are smart glasses, autonomous vehicles, generative AI services on smart devices, or (more likely) things we have yet to envision, a significant amount of wireless infrastructure will need to be deployed and upgraded to keep up with network demands.

AI infrastructure is wireless infrastructure. Thus, as you examine how to most effectively advance America's AI future, it is essential to also consider the importance of smart wireless permitting policies, something that has been a hallmark of this Subcommittee. The full capabilities of AI will not be realized without timely wireless infrastructure deployment. We can't let Americans be left behind due to administrative red tape that puts process ahead of

progress, which is why WIA advocates for predictable, proportionate, and transparent permitting processes. This Committee last year advanced important permitting legislation, the American Broadband Deployment Act (ABDA), that would advance our national technology priorities; we urge you to take up similar legislation this Congress. Doing so is essential to meeting the full capabilities of 5G and laying the groundwork for the AI-driven services and applications that will usher in the next generation of wireless connectivity.

Sincerely,



Patrick Halley
President & CEO

cc: The Honorable Brett Guthrie, Chair, House Energy & Commerce Committee
The Honorable Frank Pallone, Ranking Member, House Energy & Commerce Committee

Statement on New Jersey's Ongoing Development and Oversight of Artificial Intelligence

Office of New Jersey Attorney General Matthew J. Platkin

The State of New Jersey is committed to the responsible development and use of artificial intelligence (AI) to capitalize on New Jersey's national leadership role as a hub in key industries such as health, sustainability, finance, and technology. Our multipronged approach promotes the ability of academia, industry, state government, and public-private partnerships to work together to promote, develop, and deploy AI technologies in appropriate use cases with effective government oversight through the enforcement of preexisting and new laws and regulations. This strategy is enabling our State to leverage AI to foster progress and create economic opportunity for New Jerseyans while ensuring that the public is protected from emerging and evolving harms.

We welcome federal government leadership in steering a national conversation around the benefits and risks of AI and how to design a shared legal framework that appropriately balances the attendant risks and benefits at the baseline without stifling innovation. As New Jersey's own experience shows, it is essential that States be given the space to explore how their local circumstances translate into priorities and anticipated impacts, to decide for themselves how to calibrate their government programs and legal regimes to the needs of their residents, and to experiment with and learn from different regulatory and enforcement approaches in light of their specific circumstances.

That diversity of perspectives and experiences will only enrich the national conversation around AI and put Congress in the best position to enact legislation that best serves the interests of the public in our vast nation. For that reason, last week I joined 39 other State Attorneys General in a bipartisan letter urging Congress to reject a proposal that would impose a 10-year prohibition on enforcing state laws addressing AI and automated decision-making. And today, through this statement, I would like to provide this committee with additional information about the valuable work in the AI space that is in progress in New Jersey, as an illustration of the kinds of contributions that could be delayed or lost if Congress were to deny the States a role in regulating the risks of AI through an overbroad moratorium.

Positioning New Jersey as an AI Hub in the East Coast

In October 2023, Governor Phil Murphy signed Executive Order 346, which established an AI Task Force charged with studying emerging AI technologies to issue findings on their potential impact on society and to offer recommendations for government actions to encourage the ethical and responsible use of AI technologies, including Generative AI. As a member of the Task Force, I am proud of the work we have done to better understand and leverage these emerging technologies in concrete ways while identifying the key considerations and principles that should guide effective oversight.

As part of its work, the Task Force commissioned several surveys to gauge responses and attitudes towards AI among New Jersey public employees, institutions, and residents, to better understand our technological landscape and ensure that our government's strategy is well aligned with local priorities and concerns and fosters public trust. Building on this work and months of consultation

with experts and stakeholders, the AI Task Force issued a final report in November 2024 that included recommendations to the Governor to encourage the statewide development and use of AI, improve government services, and promote equitable outcomes.

Since then, New Jersey has taken multiple steps to put our commitment to innovation into action. In March 2025, Governor Murphy officially opened the NJ AI Hub, a state-of-the-art facility in West Windsor Township that will provide a physical location for a public-private partnership among the New Jersey Economic Development Authority (NJEDA), Princeton University, Microsoft, and CoreWeave. Supported by an investment of over $72 million, programming at the NJ AI Hub will focus on research and development, commercialization and acceleration of innovation, and strengthening AI education and workforce development. This initiative is part of a broader push to promote statewide investment in AI, which also includes a tax credit program for innovative AI companies and the creation of a venture fund that will invest in early-stage AI startups, focusing on companies that are part of New Jersey's strategic industries.

Enforcing Existing Laws and Regulations

While AI presents new opportunities that New Jersey is ready to embrace, our existing laws and regulations still provide strong tools to ensure that the use of innovative technologies does not result in discrimination or bias-based harassment. My office and the New Jersey Division on Civil Rights (DCR) are committed to enforcing New Jersey's civil rights laws, including the New Jersey Law Against Discrimination (LAD), which is one of the nation's strongest antidiscrimination laws. In January 2025, we issued joint guidance[1] addressing the application of the LAD to algorithmic discrimination resulting from the use of new and emerging data-driven technologies, including AI.

The LAD prohibits discrimination and bias-based harassment in employment, housing, places of public accommodation, credit, and contracting on the basis of actual or perceived race, religion, color, national origin, ancestry, sex, gender identity or expression, sexual orientation, disability, and other protected characteristics. Although the law predates the development of AI, by its terms, it squarely applies to automated decision-making tools that rely on innovative technologies if their use results in unlawful discrimination. The guidance provides clear definitions, legal standards for liability, and examples of how discrimination and bias may be introduced at every stage of the lifecycle of these tools—from their design, through the training of underlying models, and up to the tools' deployment and use. It is tailored to educate the public and put regulated sectors on notice of the specific risks of algorithmic discrimination that these tools carry and how the LAD redresses them.

The use of AI and other automated decision-making tools does not immunize covered entities from LAD liability that they would face if they achieved the same results through other means. A nationwide moratorium on enforcement of state laws on AI may hinder our ability to enforce these longstanding civil rights protections and provide much-needed legal guidance to innovators and service providers who wish to harness the promise of AI without perpetuating discrimination and bias. I urge Congress to preserve New Jersey and other States' ability to protect the public in this space.

[1] https://www.nj.gov/oag/newsreleases25/2025-0108_DCR-Guidance-on-Algorithmic-Discrimination.pdf

Tackling Emerging Harms to the Public Through New Legislation

In addition to enforcing longstanding laws like the LAD, New Jersey has also enacted new legislation to provide guardrails for the use of AI and other innovative technologies that specifically apply to areas and use cases where members of the public may face a heightened risk of harm. That is the kind of tailored approach to AI regulation by the States that Congress should welcome rather than discourage or seek to displace.

For example, the New Jersey Data Privacy Act (NJDPA), our State's omnibus privacy law, went into effect in January 2025. The NJDPA requires, among other things, that businesses that intend to process consumer data conduct data protection assessments if such processing "presents a heightened risk of harm to a consumer." One of the activities that may result in such "heightened risk" is profiling, defined as any form of automated processing performed on personal data to evaluate, analyze or predict personal aspects related to an identified or identifiable individual's economic situation, health, personal preferences, interests, reliability, behavior, location or movements. The NJDPA also grants consumers the right to opt-out of profiling in furtherance of decisions that produce legal or similarly significant effects. Deployment of any AI tools that may engage in "profiling" or otherwise process data in a way that presents a risk of harm to a consumer would trigger the application of the Act.

Similarly, in April, Governor Murphy signed into law a new statute that establishes civil and criminal penalties for the production and dissemination of deceptive audio or visual media, commonly known as "deepfakes," for illicit purposes. As our Legislature recognized, the advancement of AI has not only enabled the creation of ever more realistic and convincing deepfakes, but also made them more widely accessible and easy to generate by all kind of users. Still, in recognition of the First Amendment concerns and risks of stifling innovation that a broad deepfake ban could raise, our legislation specifically focuses on materials that are created or used to commit or attempt to commit crimes and offenses, including sex-related crimes, harassment, and improper influencing of official and political matters. Indeed, in 2024, my office and the New Jersey Secretary of State issued guidance to the public on identifying and avoiding the spread of deepfake photos, videos, and audio that use Generative AI technologies that spread misinformation aimed at manipulating and misleading voters.[2]

New Jersey's experience shows that States can take well-informed, tailored, and sophisticated approaches to regulating AI and managing the evolving risks that these technologies pose for our residents while being a hospitable home for innovators. I urge Congress to stay the course and allow us to continue doing so.

[2] https://www.njoag.gov/as-2024-presidential-election-approaches-lt-governor-way-and-attorney-general-platkin-issue-guidance-on-how-to-recognize-political-deepfakes-designed-to-misinform-and-manipulate/

Testimony of Dr. Krystal Rawls
Director, CSUDH Workforce Integration Network
Before the U.S. House of Representatives
Committee on Energy and Commerce
Hearing on "Artificial Intelligence and Communications Infrastructure"
Wednesday June 4th, 2025

Chair Guthrie, Ranking Member Pallone, and Members of the Committee:

Thank you for the opportunity to testify today on the critical intersection of Artificial Intelligence and communications infrastructure and to share insights from the work we are doing at the **California State University Dominguez Hills Workforce Integration Network**.

My name is Dr. Krystal Rawls, and I serve as Director at California State University, Dominguez Hills, a public higher institution dedicated to economic mobility and innovation. Our **Workforce Integration Network** is a cross-sector partnership that brings together industry, educators, labor organizations, and community stakeholders to align emerging technology trends with workforce development. This program was established because of support we received through the federal government as awardees of the Connecting Minority Communities Grant from the U.S. Department of Commerce.

The Opportunity and Challenge of AI in Communications Infrastructure

Artificial Intelligence is already transforming communications infrastructure—from optimizing network traffic and enabling predictive maintenance, to enhancing cybersecurity and supporting the deployment of 5G and fiber networks.

However, without deliberate planning, this transformation risks widening digital and economic divides. Without strengthening our workforce training to match the fast moving technological advances, communities across the country will not be able to meet the fast growing workforce needs. According to the Bureau of Labor Statistics, AI is dramatically accelerating the needs of several job fields, but most significantly in software development expected to grow by almost 20 percent, far above the average 4 percent across all occupations[1].

At CSUDH, we view this moment as both a technological and social inflection point.

In Los Angeles County, the Workforce Integration Network operates in partnership with public, private, and nonprofit sectors to prepare underrepresented populations for AI-enabled employment. These are not theoretical programs. They are tested, cost-efficient mechanisms for expanding economic participation, strengthening small business ecosystems, and increasing labor productivity across the country's largest urban region.

[1] https://www.bls.gov/opub/ted/2025/ai-impacts-in-bls-employment-projections.htm

WIN has directly supported **Jobs and Economic Development Incentive (JEDI) Zones**—community-based innovation corridors designated by the City of Los Angeles. These zones are anchored in neighborhoods such as Watts, Wilmington, and the Goodyear Tract, which experience persistent economic underinvestment.

What We're Doing at CSUDH

Our research and workforce programming offer several takeaways:

1. **AI is Already in Use—But Understanding is Lagging:**
   Through employer roundtables and student engagement, we've found that while AI-driven tools are being embedded in communications infrastructure, the understanding of how these systems work—especially among frontline workers—is often shallow. This gap creates risks around transparency, trust, and accountability.
2. **Skills are the New Infrastructure:**
   As AI enables intelligent networks, workforce readiness becomes as crucial as physical infrastructure. We've launched stackable credential pathways in AI operations, digital infrastructure management, and data ethics in partnership with national and regional industry leaders.
3. **Digital Education Must Be Baked In, Not Bolted On:**
   AI and advanced networks must serve all communities. We are piloting apprenticeship and reskilling models that connect students to real-world initiatives—like rural broadband mapping and algorithm auditing—to ensure the workforce remains in the communities it serves.
4. **Cross-Sector Coordination is Essential:**
   We've learned that AI and communications infrastructure don't evolve overnight. We convene monthly working groups with city planners, telecom firms, and educational institutions to align regional priorities around AI deployment, broadband access, and workforce pipelines.

Our students provided **foundational AI comprehension training** for small business owners, reentry program clients, and probation-aligned workforce advisors. These engagements:

- Demystified AI for individuals unfamiliar with digital automation and predictive technologies.
- Increased awareness of AI's role in hiring platforms, customer service tools, and civic engagement systems.
- Improved the ability of small, minority-owned businesses to understand and evaluate AI-enabled products before procurement.

This activity aligns with small business acceleration goals outlined by the LA Economic and Workforce Development Department and contributes directly to micro-enterprise viability.

Over 60% of our students work while enrolled. Embedding employment into education reduces loan dependency and improves both completion rates and long-term wage mobility. This is a

high-yield, low-cost model for federal scale. These public investments lower per-student workforce training costs, reduce time-to-hire, and eliminate downstream inefficiencies in public employment systems.

Policy Recommendations

Based on our experience, I offer the following recommendations to the Committee, all of which can be done if the Internet for All Digital Equity Act programs are resumed:

1. **Invest in Regional AI Workforce Hubs**
   Federal investment should support regional workforce hubs that connect higher education, industry, and government in co-designing AI infrastructure talent pipelines.
2. **Expand AI Literacy and Digital Resilience Programs**
   Fund versatile AI and data literacy programs, including community-based initiatives that support displaced or transitional workers in adapting to AI-enhanced roles.
3. **Support Applied Research and Demonstration Projects**
   Encourage grants for higher education institutions to lead research on ethical, operational, and workforce implications of AI in communications infrastructure—connecting technical insight with community impact.
4. **Promote Standards for Transparency and Accountability**
   Ensure federal policies incentivize transparent AI deployment and workforce impacts assessments across telecommunications and infrastructure providers.

Final Thoughts

Economic competitiveness in the AI era requires more than fast networks—it requires **prepared people, localized platforms, and long-view investment in workforce integration**. The WIN model proves that digital equity work, when aligned to regional labor trends and supported by federal funding, can deliver outsize returns in employment, innovation, and fiscal efficiency.

Artificial intelligence is not the future—it is the present. Congress must now act to ensure the economic value of AI is fully realized by those historically excluded from its design and deployment.

AI will not just change our networks—it will change who gets to participate in the economy of the future. The work we're doing at CSUDH demonstrates that inclusive AI innovation is not only possible—it's essential. You ask how Congress and the federal government can address AI today? By allowing the work under the NTIA Internet for All initiative to continue.

The House Is Close To Passing a Moratorium on State Efforts To Regulate AI

May 15, 2025

A House committee reconciliation proposal includes a federal moratorium that would nullify or prevent, for a decade, existing or future state laws that address any aspect of AI law or regulation.

On May 11, 2025, the House Energy and Commerce (House E&C) Committee released its budget reconciliation proposal, and on May 14, the proposal was passed out of committee. It includes the largest Medicaid cuts in history, as part of what a Center for American Progress analysis called the "largest transfer of wealth from the poor to the rich in a single law in U.S. history." Tucked away in the proposal is an expansive giveaway to Big Tech and artificial intelligence (AI) companies, in the form of a federal moratorium that would nullify or prevent existing or future state laws that address any aspect of AI law or regulation—for a decade.

Section 43201(c), the "Artificial Intelligence and Information Technology Modernization Initiative: Moratorium," states:

no State or political subdivision thereof may enforce any law or regulation regulating artificial intelligence models, artificial intelligence systems, or automated decision systems during the 10-year period beginning on the date of the enactment of this Act.

The purpose of this provision is clear. It aims to nullify existing and future state efforts to address the harms from AI that are already proliferating or place any restrictions on AI deployment. Indeed, the proposed text includes further definitions and rules of construction, the latter of which states, "the primary purpose and effect of [the moratorium] is to remove legal impediments to, or facilitate the deployment or operation of, an artificial intelligence model, artificial intelligence system, or automated decision system."

The few significant existing state AI laws are focused on preventing harms by promoting transparency, algorithmic fairness, and accountability. There is already ample evidence of the harms from existing AI systems, from the automated denial of health insurance claims to AI monitoring of employees, and states are considering regulating on a variety of issues. This moratorium would prevent states from banning even the most harmful uses of AI, such as any bill that proposes prohibiting the automated firing of employees by AI systems. These are real-world harms that may destroy public trust in AI systems and slow AI adoption, absent laws that can reassure the public of their safety.

The proliferation of state AI laws is entirely due to congressional inaction. Traditionally, state legislation filling the void left by the federal government has been a celebrated feature

of federalism. The states have been laboratories of democracy, something celebrated by conservatives and progressives alike. Different state efforts are the best opportunity to discover the most effective AI regulations. Yet the sweeping federal moratorium on state AI laws would be premature, as few laws are already in effect, and the thousands of bills that have been proposed are far from guaranteed to pass. Moreover, the moratorium is not paired with any baseline federal AI legislation; the House is proposing to erase state protections without offering a federal replacement. The moratorium also ignores the history of early internet legislation, when Congress often moved once there was concrete evidence of emerging conflicts that needed to be resolved.

The preemption of state laws regulating AI is a top goal of Big Tech and AI companies, and this moratorium proposal offers an unprecedented giveaway to industry at a time when the president and the majority in the House of Representatives have spent years claiming that these companies are too powerful and must be held accountable. To essentially prevent all 50 states from exploring AI policy solutions at a time when Congress has not passed a significant technology regulation bill in many years is to avoid the problem and allow it spin out of control.

Far from being a dramatic congressional action, a 10-year moratorium on state AI laws would represent a great congressional inaction. It would prevent any policy development at the state level that could be adopted nationally, and it would give Congress another excuse to kick the can down the road until it is too late to pass comprehensive and necessary laws.

Congressional inaction has incentivized state action on AI

The rise of generative AI into the public consciousness pushed Congress to focus on it. Yet despite numerous bipartisan AI working groups in both chambers of the 118th Congress issuing reports on the importance of addressing AI, there have been no meaningful legislative steps. Although Congress has introduced numerous AI bills and held hearings, the 118th Congress passed no AI bills, and the 119th Congress has so far passed only one AI-related bill, the TAKE IT DOWN Act. This inaction is part of a history of congressional inaction on technology issues, which has led states to take their own actions, such as the California Consumer Privacy Act and the Illinois Biometric Information Privacy Act, in the privacy space. The same can be said of the states stepping in to regulate AI.

States as laboratories of democracy

States are the laboratories of democracy, and policy innovation comes from experimentation. For example, many AI regulation opponents have called to establish regulatory sandboxes in states that would allow experimentation and innovation

in AI governance. The Institute for Progress (IFP) AI Action Plan Database, for example, categorized 30 submissions that included a recommendation to, "Establish regulatory sandboxes for testing AI innovations with temporary regulatory relief."

In the absence of federal legislation, states are best positioned to listen to their residents and determine appropriate AI policy solutions. Unlike Congress, which is often stalled by partisan gridlock and special interest lobbying, state governments can be nimbler and more responsive to emerging technological threats. Although some state regulations may end up being ineffective or burdensome, others may prove effective and serve as models for future federal legislation. Without state regulations, Congress will have no real-world examples to draw from when crafting national AI regulation.

Concerns about a patchwork of state regulations tend not to acknowledge the reality that most interstate commerce already deals with varying state laws. And while the tech industry has claimed that a patchwork of state privacy legislation would be overly burdensome, it has also supported state privacy bills.

A federal moratorium is premature

The argument has been made that, because thousands of AI bills are pending in state legislatures, federal preemption is necessary. But anyone who works on state policy knows that thousands of bills are proposed in state legislatures every session, and most go nowhere. Big Tech and AI companies are treating every proposed state legislature bill as if it will pass, which is not a serious metric. Rather than judging the potential burden of proposed legislation, it would be more reasonable to consider the state AI laws on the books today.

Few state AI bills have passed into law, and even fewer have gone into effect. Even fewer could be credibly argued to impose significant burdens on AI developers or deployers. A quick glance at the National Conference of State Legislatures' (NCSL) trackers for artificial intelligence legislation in 2025 and 2024 finds that most enacted or adopted AI legislation is relatively minor or the kind of legislation that AI companies would support, such as driving AI adoption or increasing AI education or workforce support. Moreover, the International Association of Privacy Professionals' "US State AI Governance Legislation Tracker"—which tracks more substantial "cross-sectoral AI governance bills that apply to private sector organizations"—lists only five bills that have passed into law. Of those five, only one, Colorado's S.B. 205, has been the subject of the fiercest criticism from industry and AI adoption proponents, and that bill does not even fully go into effect until February 2026.

By and large, Big Tech and AI companies complain about hypothetical future harms, and they have not demonstrated any significant regulatory burdens or conflicting court decisions that justify this moratorium. Meanwhile, today's AI and automated decision-making systems are causing real harms—and states have taken these harms more seriously than Congress. Congress has not even examined the potential impacts of a moratorium. The House E&C Committee held no hearings before its vote approving the moratorium to discuss this stripping of state power and authority—either the moratorium itself or the state laws it would invalidate. It has not invited as witnesses state elected officials, such as state legislators who have authored the bills, or state attorneys general and governors who would be tasked with enforcement. The moratorium is opposed by the National Conference of State Legislatures and the National Association of State Chief Information Officers.

The E&C Committee is clearly aware this issue is deserving of deeper examination, as the same day that it passed the state AI moratorium it also announced a hearing for the following week titled "AI Regulation and the Future of US Leadership" that will focus on how "[b]urdensome and conflicting AI legislation stifles innovation and undermines the success of entrepreneurs." Generally, hearings to examine the impact of potential legislation are most useful for legislators before any votes are held on that legislation. It should also be noted that each of the state legislatures that have passed AI bills passed them through their regular legislative process, with hearings that occurred before the votes, witnesses, amendments, debates, and multiple votes.

A moratorium on state AI laws, without any federal AI proposal

The House E&C's proposed moratorium on state AI laws is not federal preemption in the traditional sense, as it does not offer alternative federal legislation to either increase AI adoption or combat AI harms. It is a massive usurping of state power without any baseline federal legislation to fill the vacuum.

Federal preemption can be an appropriate tool at times but is not a tool to be used lightly, without serious examination of the consequences. The House E&C Committee is well-aware of the complex considerations around preemption. In February 2025, the House E&C Committee Data Privacy Working Group, which is composed only of members of the majority who also crafted the bill that includes the moratorium, posted a Request for Information (RFI) with questions such as, "Given the proliferation of state requirements, what is the appropriate degree of preemption that a federal comprehensive data privacy and security law should adopt?" The committee has yet to release its review of submissions to the RFI.

The House E&C Committee, under previous leadership, held numerous privacy hearings during the past two Congresses and drafted two different versions of bipartisan bicameral federal data privacy legislation that would have preempted state privacy laws, with some exceptions, in favor of a federal standard inclusive of data minimization and enforcement options. These legislative efforts aimed to at least balance the trade-offs between innovation and consumer protections, standing in stark contrast to the current giveaway to Big Tech and AI companies.

It has been argued that events of the 1990s show that the light-touch approach used by Congress and the Clinton administration to develop the internet justifies a doubling down on AI deregulation through this state law preemption—or no regulation at all, in the case of this moratorium. But this ignores the reality that while Congress may have preempted state laws in the past, it generally did so with federal laws that had specific goals and to address real conflicts that required congressional action. For example, Section 230, which provides immunity from civil and state criminal liability for carrying or moderating third-party content, came after a series of conflicting court decisions that left websites in legal uncertainty when hosting and moderating such content. Section 230 provided federal clarity on the matter of intermediate liability that allowed for the explosion of internet companies and is considered the "Twenty-Six Words That Created the Internet." Yet some argue that Section 230's broad approach created both the modern internet and a culture of immunity that has incentivized some of modern technology companies' worst abuses—so actions taken in the 1990s should serve as a cautionary tale. Such lessons argue for far more examination and analysis of the preemption of state AI laws before any congressional action.

A giveaway for Big Tech and AI companies

The most obvious motivation for the moratorium on state AI laws is that it is a top priority for Big Tech and AI companies. According to the IFP AI Action Plan Database, which analyzed submissions to Trump administration's "AI Action Plan" RFI, 41 submissions included the recommendations IFP categorized as to, "Implement federal preemption of state AI laws to create a unified national framework."

Specifically, Big Tech and AI companies including Google, Meta, and OpenAI have called for the federal preemption of existing and future state AI laws. In addition, industry-funded groups such as the U.S. Chamber of Commerce, the Computer & Communications Industry Association, the Information Technology Industry Council, and TechNet have called for the federal preemption of state AI laws. (CAP has previously outlined the funding relationships between these organizations and Big Tech companies). Those arguing that the moratorium is not a giveaway to Big Tech have not elaborated on how that could be true

when Big Tech companies have specifically asked for the preemption of state AI laws in their requests to the Trump administration.

As CAP has written previously, President Trump and House E&C Committee leaders have declared Big Tech accountability a top priority. Therefore, it does not make sense that they would offer these companies such an unprecedented giveaway. The committee is likely aware of the poor optics of this moratorium, which is why it passed it in the dead of night, hidden inside a bill that strips health care from millions of Americans to pay for tax breaks for the wealthy.

Conclusion

AI development is moving at light-speed, and 10 years is a lifetime in the world of technology. It is hard to imagine what it will look like in a decade, for both good and ill. Preventing America's 50 states from regulating AI, while failing to provide any federal AI legislation, is a dereliction of duty by the House E&C Committee. Americans want Congress to act on emerging problems, and when it does not, they expect the states to act. Congressional inaction cannot also punish states for action.

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May 16, 2025

The Honorable Mike Johnson
Speaker
U.S. House of Representatives
Washington, DC 20515

The Honorable John Thune
Majority Leader
U.S. Senate
Washington, DC 20510

The Honorable Hakeem Jeffries
Minority Leader
U.S. House of Representatives
Washington, DC 20515

The Honorable Chuck Schumer
Minority Leader
U.S. Senate
Washington, DC 20510

Dear Speaker Johnson, Majority Leader Thune, Minority Leader Jeffries, and Minority Leader Schumer:

We, the undersigned attorneys general (the "State AGs"), write to voice our opposition to the amendment added by the U.S. House Energy and Commerce Committee to the budget reconciliation bill that imposes a 10-year prohibition on states from enforcing any state law or regulation addressing artificial intelligence ("AI") and automated decision-making systems. The impact of such a broad moratorium would be sweeping and wholly destructive of reasonable state efforts to prevent known harms associated with AI. This bill will affect hundreds of existing and pending state laws passed and considered by both Republican and Democratic state legislatures. Some existing laws have been on the books for many years.

The promise of AI raises exciting and important possibilities. But, like any emerging technology, there are risks to adoption without responsible, appropriate, and thoughtful oversight. In the absence of federal action to install this oversight, over the years, states have considered and passed legislation to address a wide range of harms associated with AI and automated decision-making. These include laws designed to protect against AI-generated explicit material,[1] prohibit

[1] *See e.g.*, S.B. 25-288, 2025 Leg., 75th Gen. Assem., 1st Reg Sess. (Colo. 2025); TENN. CODE ANN. § 39-17-1002, *amended by* 2024 Tenn. Acts, Pub. Ch. 911, eff. 7/1/2024; ILL. COMP. STAT. 103-0825 / 6-106.1 (2024); H.B. 2299, 2025 Leg., Reg. Sess. (Or. 2025); H.B. 4744, 2023-2024 Leg., 193rd Gen. Assemb.,

deep-fakes designed to mislead voters and consumers,[2] protect renters when algorithms are used to set rent,[3] prevent spam phone calls and texts,[4] require basic disclosures when consumers are interacting with specific kinds of AI,[5] and ensure identity protection for endorsements and other AI-generated content.[6] Perhaps most notably, of the twenty states that have enacted comprehensive data privacy legislation, the overwhelming majority included provisions that give consumers the right to opt out of specific kinds of consequential, automated decision-making[7] and require risk assessments before a business can use high-risk automated profiling.[8]

As evidenced by this brief overview, states are enforcing and considering not just laws that seek to regulate AI or automated decision-making more generally, but also carefully tailored laws targeting specific harms related to the use of AI. These laws and their regulations have been developed over years through careful consideration and extensive stakeholder input from consumers, industry, and advocates. And, in the years ahead, additional matters—many unforeseeable today given the rapidly evolving nature of this technology—are likely to arise.

Reg. Sess. (Mass. 2024); S.B. 217, 2023-2024 Leg., 135th Gen. Assemb., Reg. Sess. (Ohio 2024); Ala. Code § 14A-6-240.

[2] *See e.g.*, Political Reform Act of 1974, CAL. GOV'T CODE §§ 81000-91014 (amended 2025); N.H. REV. STAT. ANN. § 664:14-c; COLO. REV. STAT. § 1-45-101; FLA. STAT. § 106.145; S.B. 33, 2025-2026 Leg., 34th Gen. Assemb., 1st Sess. (Alaska 2025); H.B. 986, 2023-2024 Leg., Reg. Sess. (Ga. 2024); S.B. 1571, 2024 Leg., Reg. Sess. (Or. 2024).

[3] H.B. 24-1057, 2024 Leg., 74th Gen. Assemb., Reg. Sess. (Colo. 2024); H.B. 2847, 2025 Leg., 1st Reg. Sess. (Ariz. 2025); S.B. 3657, 2024-2025 Leg., Reg. Sess. (N.J. 2024); H.B. 558-FN, 2025 Leg., Reg. Sess. (N.H. 2025); S.B. 2697, 2025-2026 Leg., Reg. Sess. (N.Y. 2025); FLA. STAT. § 106.145.

[4] *See, e.g.,* CAL. BUS. & PROF. CODE §§ 1798.100, et seq. (2019); FLA. STAT. §§ 501.059 et seq. (2021), OK. STAT. tit 15 §§ 775C.1, et seq. (2022); MD. CODE ANN. §§ 14-4501 et seq. (2023); H.B. 679, 2025-2026 Leg., Reg. Sess. (Ga. 2025).

[5] UTAH CODE ANN. § 13-72a-201; CAL. HEALTH & SAFETY CODE § 1316.9; S.B. 640, 2025 Leg., Reg. Sess. (Haw. 2025); H.B. 3021, 2025-2026 Leg., 104th Gen. Assemb., Reg. Sess. (Ill. 2025); H.B. 127, 2025 Leg., Reg. Sess. (Idaho 2025); H.B. 1620, 2025 Leg., Reg. Sess. (Ind. 2025).

[6] *See, e.g.,* N.H. REV. STAT. ANN. § 638:26-a; CAL. CIV. CODE § 3344.1; A.B. 5164, 2024-2025 Leg., Reg. Sess. (N.J. 2025); S.B. 217, 2023-2024 Leg., 135th Gen. Assemb. Reg. Sess. (Ohio 2024); H.B. 431, 2025-2026 Leg., Reg. Sess. (Pa. 2025); UTAH CODE ANN. § 45-3-2, et seq; A3540 (N.J. Stat. Ann. § 2C:21-17.7 et. seq.).

[7] CAL. CIV. CODE §§ 1798.100 et seq. (2018); COLO. REV. STAT. §§ 6-1-1001 et seq. (2020); CONN. GEN. STAT. §§ 42-515 et seq. (2022); DEL. CODE. ANN. tit. 6 §§ 12D-101 et seq.; IND. CODE §§ 24-15-1-1 et seq.; KY. REV. STAT. ANN. §§ 367.3611 et seq.; MD. CODE ANN. §§ 14-1601 et seq.; MINN. STAT. § 325O.01; MONT. CODE ANN. §§ 30-14-2801 et seq.; NEB. REV. STAT. §§ 87-1101 et seq. (2024); N.H. REV. STAT. ANN. § 507-H; NJ §§ 56:8-166.4 et seq.; OR. REV. STAT. §§ 646A.570 et seq. (2023); 6 R.I. GEN. LAWS §§ 6-48.1-1 et seq. (2024); TENN. CODE ANN. §§ 47-18-3201 et seq.; TEX. BUS. CODE ANN. §§ 541.001 et seq. (2023); VA. CODE ANN. §§ 59.1-575 et seq.

[8] *Id.*

A bipartisan coalition of State Attorneys General previously recommended that an appropriate federal framework for AI governance should focus on "high risk" AI systems and emphasize "robust transparency, reliable testing and assessment requirements, and after-the-fact enforcement." In that letter, the coalition stated that State Attorneys General should:

> . . . have concurrent enforcement authority in any Federal regulatory regime governing AI. Significantly, State AG authority can enable more effective enforcement to redress possible harms. Consumers already turn to state Attorneys General offices to raise concerns and complaints, positioning our offices as trusted intermediaries that can elevate concerns and take action on smaller cases.[9]

Rather than follow the recommendation from the bipartisan coalition of State Attorneys General, the amendment added to the reconciliation bill abdicates federal leadership and mandates that all states abandon their leadership in this area as well. This bill does not propose *any* regulatory scheme to replace or supplement the laws enacted or currently under consideration by the states, leaving Americans entirely unprotected from the potential harms of AI. Moreover, this bill purports to wipe away any state-level frameworks already in place.

Imposing a broad moratorium on all state action while Congress fails to act in this area is irresponsible and deprives consumers of reasonable protections. State AGs have stepped in to protect their citizens from a myriad of privacy and social media harms after witnessing, over a period of years, the fallout caused by tech companies' implementation of new technology coupled with a woefully inadequate federal response. In the face of Congressional inaction on the emergence of real-world harms raised by the use of AI, states are likely to be the forum for addressing such issues. This bill would directly harm consumers, deprive them of rights currently held in many states, and prevent State AGs from fulfilling their mandate to protect consumers.

To the extent Congress is truly willing and able to wrestle with the opportunities and challenges raised by the emergence of AI, we stand ready to work with you and welcome federal partnership along the lines recommended earlier. And we acknowledge the uniquely federal and critical national security issues at play and wholeheartedly agree that our nation must be the AI superpower. This moratorium is the opposite approach, however, neither respectful to states nor responsible public policy. As such, we respectfully request that Congress reject the AI moratorium language added to the budget reconciliation bill.

Sincerely,

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[9] *Comment on Artificial Intelligence ("AI") system accountability measures and* policies, COLO. OFF. OF THE ATT'Y GEN. (June 12, 2023), https://coag.gov/app/uploads/2023/06/NTIA-AI-Comment.pdf.

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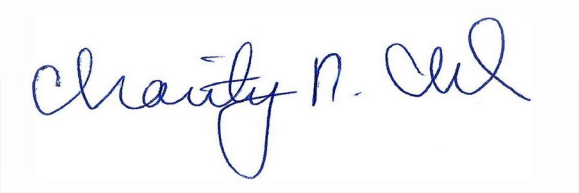

Charity Clark
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American Samoa Attorney General

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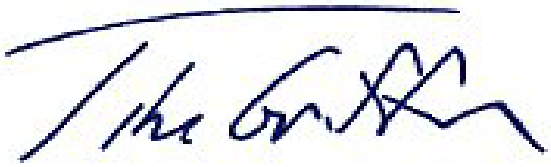

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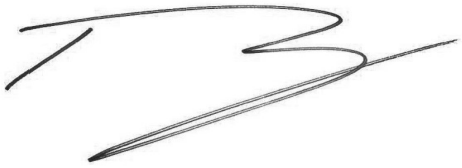

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Drew H. Wrigley
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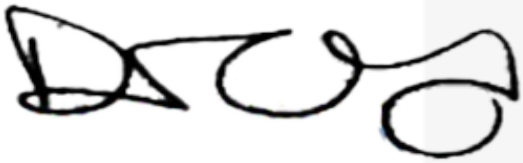

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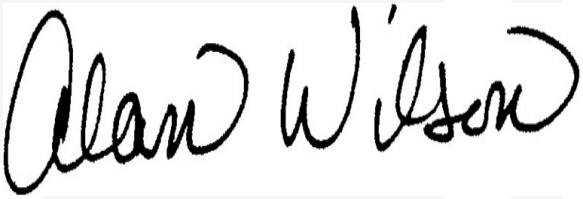

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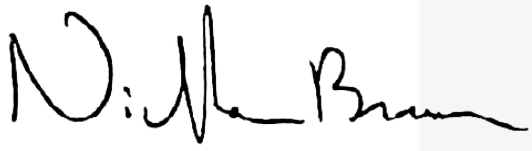
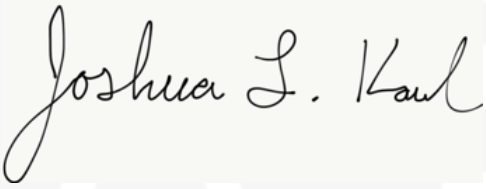


Nick Brown
Washington Attorney General



Joshua L. Kaul
Wisconsin Attorney General

FEDERAL PREEMPTION OF STATE LAW

Background

Preemption influences the distribution of powers between the federal government and the states. Federal-state preemption originates in the Supremacy Clause of the United States Constitution: Article VI, Clause 2.[1] The Supremacy Clause establishes that the Constitution, federal laws made pursuant to it, and treaties made under its authority are collectively the supreme law of the land. Consequently, federal law takes precedence over any conflicting state laws.

Preemption of state AI laws by federal legislation is a tool that Congress could use to accomplish various objectives. However, federal preemption presents complex legal and policy issues that should be considered.

Legal Issues in Preemption

Since preemption delineates the boundaries at which federal authority supersedes state legislation, legal analysis is required to understand the circumstances under which preemption would take effect and the extent to which state laws would be superseded. The requisite legal analysis can involve considerations of the specific text in the federal legislation, the intent of Congress, and the interplay between the applicable federal and state regulatory regimes.

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[1] "This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding." The Constitution of the United States: A Transcription. National Archives, www.archives.gov/founding-docs/constitution-transcript.

Key Findings

Federal preemption of state law on AI issues is complex.

Preemption raises many legal and policy issues that should be considered and addressed so that Congress effectively implements its intended policies. The context in which an AI is deployed is critical to its governance. An AI system's functional purpose, how it was developed, how it is deployed, and who interacts with it will all affect the rules and regulations that governments set to minimize harm. A generally applicable foundation model used in one sector may require different regulations than the same systems deployed in another. As such, Congress will need to weigh many different factors as it considers preemption in any law targeting artificial intelligence or related technologies.

Federal preemption has benefits and drawbacks.

Federal preemption of state law can bring uniformity and clarity, reduce compliance burdens, and otherwise implement Congress' policy objectives. However, state-level regulation has the advantages of flexibility, customization to different state populations, preservation of state authority, and experimentation that provides information relevant to policy choices.

Preemption can allow state action subject to floors or ceilings.

Federal preemption can allow states to pass laws that either meet federal minimums or that do not exceed federal maximums. This type of preemption can be established with or without a corresponding federal regulatory regime in the same area.

Preemption can be multifaceted.

Preemption of state AI regulation can be extremely multifaceted. For example, the federal government could preempt some, but not other, types of state regulation of a domain. Likewise, the federal government could explicitly permit some, but not other, types of state regulation of a domain.

Definitions must be fit for purpose.

AI has no universal definition and is occasionally seen as a general-purpose category of technology present in many sectors. Defining covered "artificial intelligence" too broadly or too narrowly could either exclude high-risk systems from regulation or accidently sweep in commonplace technologies, such as spreadsheets and spellcheckers. If Congress chooses to preempt state AI laws, the preempting legislation should precisely define AI to represent the intended scope of preemption.

Recommendations

Recommendation: Study applicable AI regulations across sectors.

To better understand the effects of law on this general-purpose technology, Congress should commission a study to analyze the applicable federal and state regulations and laws that affect the development and use of AI systems across sectors. Such a study should analyze which existing laws and legislative and administrative policies are technology-neutral but cover AI systems. Further, such a study could help policymakers better understand existing regulations and preemptive provisions.

COMMUNITY
INNOVATION
PARTNERSHIP

Dear Members of the United States Congress,

We, the undersigned mayors and local elected officials, are members of the Community Innovation Partnership (CIP)—a coalition of municipal leaders working together to advance responsible innovation in local government. Our cities and counties are actively exploring how emerging technologies like artificial intelligence (AI) can improve public services, strengthen infrastructure, and build more resilient communities.

To best position our communities for success in the 21st century, we urge you to champion federal efforts to establish consistent rules for the development and deployment of artificial intelligence technologies. A unified national framework would foster innovation by providing a predictable regulatory environment, encouraging investment, and ensuring the benefits of AI can be realized by communities across the country.

The rapid evolution of AI holds enormous potential for local governments. Communities across the country are already putting AI to work in public safety, emergency response, transportation, permitting, and more. AI tools can also help municipalities detect cyber threats in real time, respond faster to breaches, and better protect against bad actors—especially as ransomware attacks on local government systems continue to rise.

But the absence of a clear federal standard creates a patchwork of laws that generates uncertainty for both local governments and their technology partners. A national framework would reduce this uncertainty and lay the groundwork for future federal guardrails that are thoughtful, consistent, and responsive to the needs of communities nationwide.

Modernizing government infrastructure to keep pace with AI through a federal standard also opens the door for businesses to deliver innovative, efficiency-enhancing services—and offers a clear roadmap for cities and counties nationwide. Just as important, a consistent federal AI framework should align with existing national initiatives, such as cybersecurity efforts, and support collaboration across all levels of government. This kind of alignment gives communities the confidence to adopt new technologies without the added burden of regulatory uncertainty.

We stand ready to work with you to craft thoughtful, future-focused policy that ensures AI strengthens—not complicates—our ability to deliver efficient, effective, local governance.

Sincerely,

Mayor Tim Kelly, Chattanooga, TN

Mayor Vince Williams, Union City, GA

Mayor Hollies J. Winston, Brooklyn Park, MN

Mayor Sloan Spalding, New Albany, OH

Mayor Corey Woods, Tempe, AZ

Mayor Roberta Canó, Winslow, AZ

Mayor Mike Johnston, Denver, Co

Get in Touch
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NATIONAL DIGITAL INCLUSION ALLIANCE

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Washington, D.C. 20515

The Honorable Chairman Richard Hudson
The Subcommittee on Communications & Technology
Committee on Energy & Commerce
U.S. House of Representatives
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Ranking Member Frank Pallone
The Subcommittee on Communications & Technology
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Ranking Member Doris Matsui
The Subcommittee on Communications & Technology
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June 4, 2025

To: The Subcommittee on Communications and Technology of the U.S. House of Representatives' Committee on Energy and Commerce

Re: Subcommittee on Communications and Technology Hearing on AI in the Everyday: Current Applications and Future Frontiers in Communications and Technology.

From: The National Digital Inclusion Alliance

The National Digital Inclusion Alliance (NDIA) respectfully submits the following comments to the Subcommittee on Communications and Technology regarding the hearing on AI in the Everyday: Current Applications and Future Frontiers in Communications and Technology.

NDIA is a non-profit 501(c)(3) organization that ensures all US residents have the technology access and skills they need to live, work, learn, and thrive. NDIA connects

organizations, supports community programming, and equips policymakers to act. We create trusted spaces for shared learning among our community of over 2,000 affiliate member organizations nationwide to identify best practices, understand resource gaps, and develop solutions to fill these gaps. Our affiliates are community-based organizations, nonprofits, local and state governments, and many others that support individuals using technology to live, learn, work, and thrive in today's digital economy. It's our work with these affiliates and their feedback to us that informs these comments.

One of the many ways NDIA has supported our affiliates since our inception is by piloting digital skills instruction methods in local communities. From these experiences, we've identified and created replicable models and resources for digital skills educators. In 2024, NDIA launched three pilot programs and a working group of NDIA affiliates with experience integrating AI into their digital skills curricula. NDIA's aim is to prepare our affiliates to teach AI skills to their program participants, evaluate available AI skills curricula, and tailor them to meet the unique needs of their users. NDIA's pilot programs, launched jointly with community-based organizations, allow us to explore different approaches to integrating AI into digital skills programs.

The initial pilot program, conducted in Winston-Salem, North Carolina, revealed a noticeable shift in attitudes toward AI after students participated in learning experiences. At the beginning of the course, some students expressed significant fear of AI, held misconceptions about how the technology functioned, and were skeptical about its potential to enhance their personal or professional goals. However, after several classes, we observed a change in these attitudes. Many students who initially felt negatively about AI reported a shift to more positive feelings, with nearly all of them moving to a 'slightly positive' or 'very positive' perception. Furthermore, students who completed the final surveys indicated that they believed AI could help them achieve their personal or professional goals to some extent. One student shared how important the course was in helping her overcome her fear of the technology, "…I'm thankful to learn about AI instead of running from it." Another student shared her fear began to vanish after learning all the ways AI could be helpful, "It became like an 'aha' moment…so this is what AI can do if you allow it to help you…after my experience, I just wasn't scared anymore. I want to learn all I can

about it." She also expressed a balanced understanding that usefulness does not always equate to trustworthiness.

The second set of pilot programs with Eastern Kentucky and Maine partners is just beginning. These projects will explore strategies for integrating AI lessons into digital skills training for adults seeking employment. These programs will reach various individuals, including learners in rural areas needing remote work opportunities and those with challenging life experiences that have created barriers to employment. Students learn how AI is embedded in typical applications and develop skills to leverage AI effectively in the job-search process.

We submit these comments to the committee based on these experiences and our ten-year history in supporting organizations that help people get and stay online. Based on the insights gained through our pilot programs and working group, NDIA recommends that the Subcommittee on Communications and Technology Hearing consider the following findings and recommendations.

AI Skills are Digital Skills and Should be Integrated into Digital Skills Programs

UNESCO defines digital skills as, "a range of abilities to use digital devices, communication applications, and networks to access and manage information. They enable people to create and share digital content, communicate and collaborate, and solve problems for effective and creative self-fulfillment in life, learning, work, and social activities at large."[1]

Digital skills are an ever-expanding area of knowledge for everyone as technology and how we use it continues to change. Effective digital skills training provides opportunities for learners to acquire digital skills that empower them to use their devices and connectivity effectively.

Everyone needs digital skills to operate adequately in today's digital world. From K-12 learners who complete their schoolwork and homework online to older adults who use

[1] "Digital skills critical for jobs and social inclusion." UNESCO. Accessed June 3, 2025. https://www.unesco.org/en/articles/digital-skills-critical-jobs-and-social-inclusion

tablets to connect with their doctors, to any modern worker, knowing how to operate digital devices and navigate the internet safely and efficiently is necessary.

AI is just the newest type of technology that everyday internet users need to know how to use and master to benefit their lives. Digital skills educators support learners of all ages in acquiring digital skills through a variety of formats--multi-week group classes, one-on-one training, solo and self-paced learning, and digital navigation. As previously mentioned, educators of digital skills are already integrating AI skilling into their curricula. However, AI technologies are developing rapidly, and not all practitioners have yet had the time and resources to fully integrate lessons into their curricula. In addition, not enough digital skills instructors or programs exist across the U.S., nor are there national digital skills standards or curricula.

Reinstate the Digital Equity Act

Congress's 2021 Bipartisan Infrastructure Law included $2.75 billion for the Digital Equity Act (DEA), the most significant investment in digital inclusion efforts–including digital skills programs–to date. Along with the other broadband provisions in the law, the DEA is the most active systemic approach to closing the digital divide in US history.

The DEA's $2.75 billion is divided between the State Digital Equity Capacity Grant Program ($1.5 billion) and the Digital Equity Competitive Grant Program ($1.25 billion).[2] The National Telecommunications and Information Administration (NTIA) within the US Department of Commerce (USDOC) administers the DEA programs alongside BEAD, TBCP, and other broadband programs.

The Capacity Grant Program provided formula-based, block grants to states to address critical gaps in broadband affordability, digital skills, and device availability. Over the past three years, all states (including the 50 states, the District of Columbia, and the Commonwealth of Puerto Rico) and territories engaged in a comprehensive process to develop digital equity plans. States were poised to implement the plans using funds from the Capacity Grant Program. By allowing states to assess their specific needs and secure funding, this program ensures that communities have the

[2] "Digital Equity Act Programs." BroadbandUSA. Accessed December 20, 2023. https://broadbandusa.ntia.doc.gov/funding-programs/digital-equity-act-programs.

necessary tools--including AI skills--to succeed in an increasingly digital world. States have already developed and submitted plans outlining how they will utilize awarded funding to ensure that resources are effectively allocated where they are most needed.

The Competitive Grant program supports organizations in digital inclusion programming and providing digital opportunities for their community members. Funds would have been used to develop and implement digital inclusion activities (including services such as digital navigators), facilitate broadband adoption to provide opportunities for education and employment, implement digital skills training programs (from foundational skills to advanced and applied skills), implement workforce development programs, and create and support public access to computer labs in community anchor institutions. All of which are necessary for advancing AI expertise and use among US residents. These funds would have supported local programs that help people find jobs, access telehealth, keep aging adults safe by teaching cybersecurity, and strengthen AI digital skills to compete in the global economy.

On May 8, President Trump canceled the Digital Equity Act, and on May 9, the Department of Commerce terminated the DEA grants to states and organizations. Without these expected funds, many digital skills educators cannot expand their service offerings to include AI skilling; some may cut programs, and others may close their shops entirely.

Reinstating the Digital Equity Act, an already appropriated program, is a common-sense way to systematically fund and expand AI-skilling training and use throughout the country.

Fund Research and Initiatives for AI Skills Acquisition

The federal government should fund research and initiatives on AI skills acquisition for youth and adults of all levels to ensure AI benefits the US public. This should focus on identifying appropriate AI educational content and teaching methods, and developing and widely distributing context-aware learning materials and programs. This priority

aligns with our efforts to identify promising instructional approaches in our AI pilot projects and working group.

AI has rapidly become pervasive in daily lives, and digital skills educators (of youth and adults) are trying to keep up with an entirely new set of skills, while grappling with the implications for their work and their community members. They seek opportunities to learn more about the technology's practical use and discuss teaching approaches in their digital skills classes, tutoring sessions, and community events. AI literacy is essential for youth and adult learners, including older adults who must develop online skills to fully participate in the digital world and parents with young children who should learn about AI to help their kids navigate it in school and beyond. NDIA proposes that strategies should extend to and include adult digital skills education offered through community programs.

Conduct Research and Implement Activities To Prepare Students and Workers for AI-Related Roles

To achieve US AI goals, federal investments in research, education, and workforce development must prepare students and workers for careers and roles where they develop and use AI tools. Digital skills instructors emphasize the importance of helping individuals use AI for job searching, completing tasks, and advancing their skills. NDIA urges federal agencies to conduct and fund research to understand the most effective teaching strategies for integrating AI into the workplace for learners of all ages, including K-12, post-secondary, and adult learners.

The federal government must sustain and support AI skill-building as technologies–and AI specifically–evolve rapidly. Effective strategies known to help individuals develop digital skills should guide this support:[3]

- Programs that focus on providing a strong foundation in digital skills and the digital resilience necessary to navigate new technologies and tools.

[3] Many of these factors are discussed in Boosting Digital Literacy in the Workplace (National Skills Coalition, 2020): https://nationalskillscoalition.org/wp-content/uploads/2021/01/12152020-NSC-Boosting-Digital-Literacy.pdf

- Learning opportunities must reflect the real-world contexts in which learners use digital tools and should include hands-on experience alongside traditional classroom instruction.
- When applicable, participants should have the chance to earn industry-recognized, portable, and stackable postsecondary credentials to demonstrate expertise.
- Partnerships between industry sectors and education and workforce development organizations are crucial. These collaborations help identify talent needs and create training programs for various candidates, including veterans, multilingual individuals, opportunity youth, and people with disabilities.

Establish Ongoing Engagement Opportunities with the Digital Skills Educator and Research Community

To fully understand the implications of integrating AI into community programs nationwide, policymakers and researchers must continuously engage with the digital skill practitioner community to develop foundational AI implementation projects. NDIA has established a research process to understand the experiences of both instructors and learners. This process gathers lessons learned and highlights promising practices from pilot projects. To effectively address the various stakeholders involved, federal policymakers have an opportunity to establish ongoing collaboration with NDIA, our affiliate network, and organizations like ours. This collaboration will help ensure that future research, guidance, and resources align with the foundational AI research and development needs our affiliates identify.

Conclusion

Access to resources, education, and training is crucial for determining who can benefit from advancements in AI and make informed decisions about its use. Foundational digital skills are the essential building blocks necessary to utilize AI effectively. NDIA recommends reinstating the Digital Equity Act and allocating federal funding for research and implementation of activities on AI skills acquisition for nontechnical individuals of all ages. This research should enhance understanding AI's implications and implementation within the broader community.

Investing in education and workforce development initiatives is vital for preparing students and workers for AI-related roles. Additionally, it is essential to expand ongoing engagement opportunities for the community of digital skills educators and researchers to understand the implications of integrating AI into national community programs.

Consumer Reports opposes AI state preemption language in House budget reconciliation bill

Congressional Republicans on the House Energy and Commerce committee introduced a budget reconciliation bill late last night that included a broad prohibition on state laws or regulations relating to AI or automated decision systems. The language would prohibit the enforcement of laws already passed by many states, and would prohibit the enforcement of future AI protections.

“Congress has long abdicated its responsibility to pass laws to address emerging consumer protection harms; under this bill, it would also prohibit the states from taking actions to protect their residents,” said Grace Gedye, policy analyst for AI issues at Consumer Reports. “While artificial intelligence can have enormous benefits for consumers, it also presents special challenges — such as the creation of “deepfake” videos and the “black box” nature of its operation and decisionmaking. This incredibly broad preemption would prevent states from taking action to deal with all sorts of harms, from non-consensual intimate AI images, audio, and video, to AI-driven threats to critical infrastructure or market manipulation, to protecting AI whistleblowers, to assessing high-risk AI decision-making systems for bias or other errors, to simply requiring AI chatbots to disclose that they aren’t human.”

In May 2024, CR’s survey research team conducted a nationally representative multi-mode survey of 2,022 US adults on several topics, including AI and algorithmic decision-making. The full report on the AI and algorithmic decision-making survey results is available here.

We asked Americans how comfortable they felt with the use of AI and algorithms in a variety of situations, such as banks using algorithms to determine if they qualified for a personal loan, landlords using AI to screen potential tenants, hospitals using AI to help make diagnoses and develop treatment plans, and potential employers using AI to analyze applicants’ video job interviews. We found a majority of Americans are uncomfortable with the use of AI in each of these high-stakes decisions about their lives.

Gedye continued, “Nationally representative surveys make clear that Americans are concerned about the use of AI in high-stakes decisions about their lives, like whether they are hired for their dream job, whether they are chosen for a rental unit, or whether they are offered a personal loan. States have passed legislation and are working on rules that would shine a bit of sunlight on how AI is used in exactly those situations, but this preemption would keep Americans in the dark. More transparency is important, because it’s clear AI systems sometimes make mistakes, or draw fanciful conclusions”

Consumer Reports also recently conducted research on how AI voice cloning tools can facilitate fraud and impersonation. CR assessed six products available for free or low cost online, and found that a majority of the products assessed did not have meaningful safeguards to stop fraud or misuse of their product.

Contact: cyrus.rassool@consumer.org

CSG Statement on Proposed Federal Moratorium on State AI Legislation

LEXINGTON, Ky. (May 19, 2025)

The Council of State Governments (CSG), the nation's only organization serving all three branches of state government, expresses strong concern regarding the proposed 10-year moratorium on state artificial intelligence (AI) legislation included in the Energy and Commerce Committee's reconciliation measure. If enacted, this provision would represent a significant federal overreach into an area where states have consistently demonstrated leadership, innovation and bipartisan action.

States across the country are proactively engaging with the opportunities and challenges presented by artificial intelligence. Legislatures in both red and blue states have introduced and enacted thoughtful, targeted laws to address AI's implications for privacy, employment, transparency, education and public safety. These efforts reflect the diverse needs and priorities of individual states and their residents, which are hallmarks of our federalist system.

A decade-long federal prohibition on state-level AI policymaking would undermine state sovereignty at a critical moment in the evolution of this technology. It would limit states' ability to respond to emerging risks, adapt to local circumstances, and innovate in ways that can inform and complement federal policy. Such a moratorium risks stalling meaningful progress where it is most urgently needed.

States serve as laboratories of democracy, and their early action on AI reflects both prudence and foresight. Ensuring the United States remains a global leader in the responsible development and use of AI will require strong partnerships across all levels of government, including the continued innovation and agility of state leaders. Federal policymakers should support these efforts by recognizing the critical role that state governments play in shaping effective, responsible and responsive AI governance.

CSG urges Congress to remove this moratorium from the final legislation and reaffirm the rights of states to legislate in a manner that best serves their constituents. We look forward to continued collaboration with Congress, federal agencies and the technology industry to ensure the ethical and effective use of AI across all levels of government.

EPIC Opposes House Proposal to Ban States from Regulating AI

The House Energy and Commerce Committee's budget reconciliation text includes dangerous provisions on artificial intelligence that would allocate $500 million to federal government spending on AI and preempt state AI legislation for the next 10 years.

"A 10-year ban on state legislators' ability to pass AI laws is a gift to Big Tech, allowing them to continue building the unproven, discriminatory AI systems that are already harming Americans," said Alan Butler, Executive Director at EPIC. "We've seen this playbook before – AI developers will then tell Congress that their systems are too complex to regulate. States are already acting to prevent AI-driven harms, and Congress must reject this proposal to preserve states' rights to enact laws that protect their residents."

EPIC consistently advocates for state regulation that places meaningful guardrails on the development and use of AI and draws attention to the many harms AI causes. EPIC has also been urging Congress to enact a comprehensive data privacy law for over 25 years.

GOP Plan to Prevent AI Regulation Is Unhinged, Dangerous - Public Citizen

WASHINGTON, D.C. — This week, the Republican-controlled House Energy and Commerce Committee will mark up its budget reconciliation proposal, which includes a dangerous provision that would strip states of their ability to enact and enforce critical safeguards against AI-related harms for the next decade.

In response to the news, **Public Citizen's Big Tech accountability advocate, J.B. Branch,** issued the following statement:

"This is an outrageous abdication of Congressional responsibility and a gift-wrapped favor to Big Tech that leaves consumers vulnerable to exploitation and abuse. States across the country, red and blue alike, have taken bold, bipartisan action to protect their citizens. Now that state laws are finally starting to hold AI companies accountable for deepfake child pornography, election disinformation, AI companions targeting minors, and algorithmic abuse, Congress wants to slam the brakes? This isn't leadership, it is surrendering to corporate overreach and abuse under the guise of 'protecting American innovation.'

"Congress must ask itself: Will it stand with Big Tech lobbyists, or with the people it was elected to represent? Because millions of constituents across the country are currently protected by state laws that would be gutted under this proposal. Public Citizen urges lawmakers to strike this reckless preemption language from the reconciliation bill and commit to advancing federal AI legislation that builds on, not bulldozes, state-level progress."

BROOKINGS

COMMENTARY OP-ED

Not all robots take your job, some become your co-worker

Aaron Klein

October 30, 2019

Editor's note: This op-ed originally appeared in Real Clear Markets ↗ on October 30, 2019.

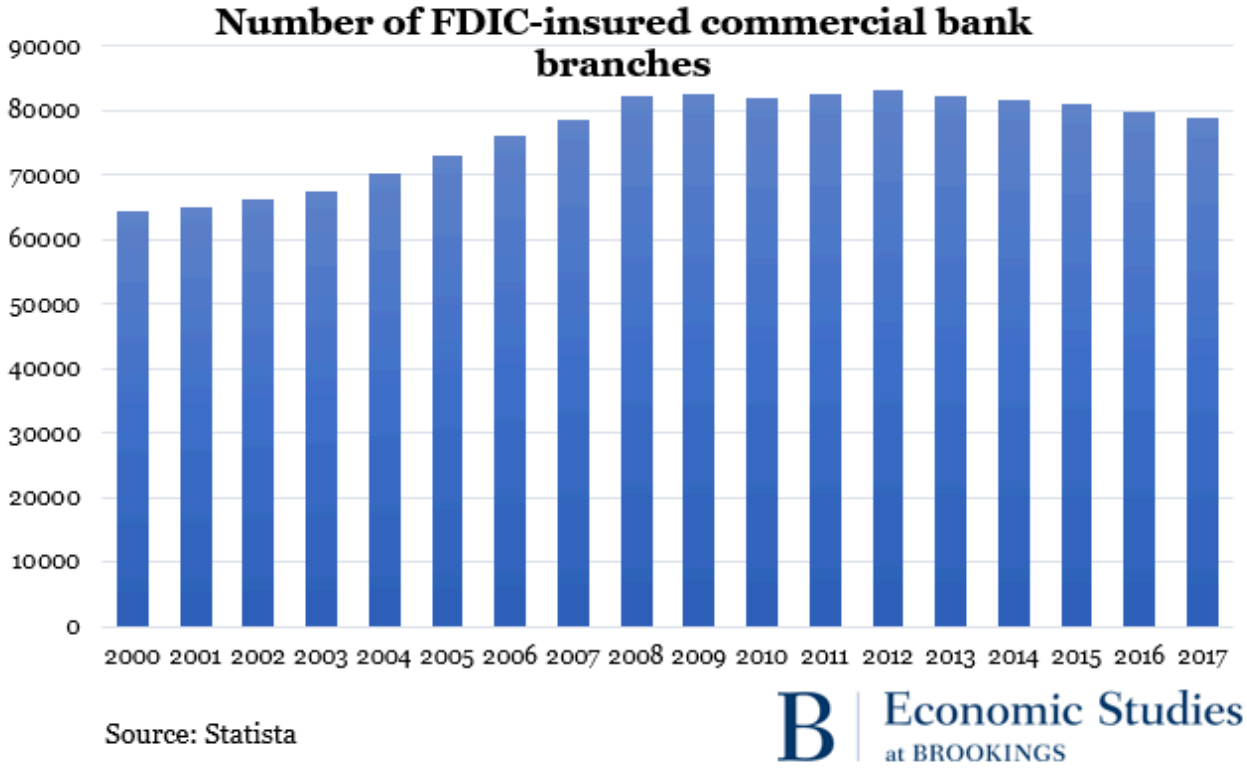
Robots have been coming for and successfully eliminating jobs for a long time: ask the iceman, elevator operator, or travel agent (if you can still find one). But what happens when the robots come for your job, succeed, and your job remains? Sounds strange but consider the conflicting reality of bank tellers and the robot designed to replace them: the Automated Teller Machine (ATM).

The first ATM appeared in America in 1969 ↗. ATM's and the associated debit cards needed to use them, took off several decades later, aided in large part by legislation enacted by Congress to protect consumers in case their cards were stolen or misused (the Electronic Funds Transaction Act). With the proper consumer protection, and the correct economic incentives, the technology flourished (https://www.brookings.edu/research/adapting-regulation-for-the-fintech-world/) .

Over 500,000 ATMs ↗ can be found across America today. And if ATM's weren't enough, technology went one step further, turning a device in almost everyone's pocket into a pseudo ATM. Aided again by new legislation passed by Congress in

2003 (the Check 21 Act), people can move money, deposit checks, and pay bills directly from their phones. No person, or even a trip to see the automated teller machine is even necessary.

Yet a funny thing happened, the jobs ATMs were designed to compete with–bank tellers–and the retail stores they were imagined to replace–bank branches–remained. In fact, there are slightly more bank branches in 2017 than there were in 2007 and 18% more than in 2000.



Consider who works at the branches. There are 472,000 ↗ bank tellers in 2018 an over 10 percent increase since 2000. In fact, the number of bank tellers today is only slightly less than the number in 1990 or 1890. How did bank tellers survive the robot attack when others did not? Is there a lesson here to counter the narrative of the robot apocalypse coming to destroy service sector jobs?

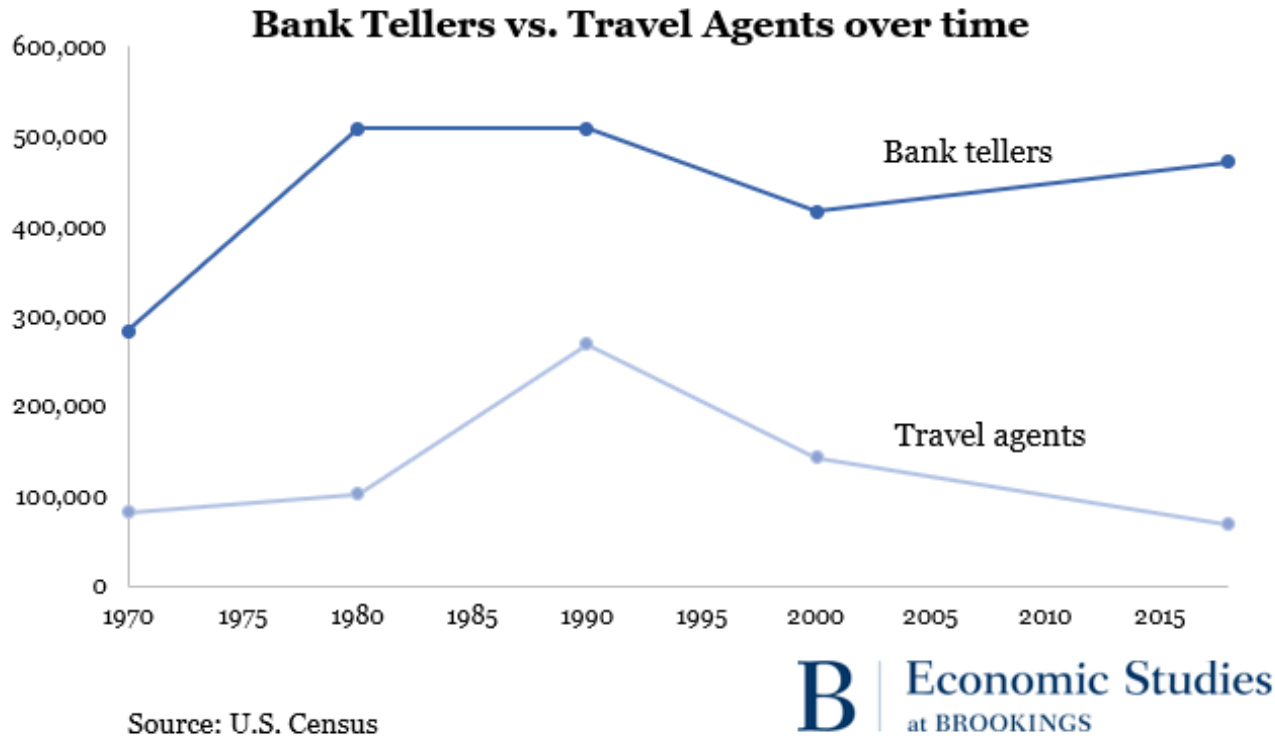
Start by comparing it to jobs that were eliminated by robots. In 1930 over 67,000 ↗ Americans, were elevator operators. In 1910 there were over 167,000 ↗ telephone and telegraph operators. These jobs are handled primarily by robots now. Elevator

operator has even been eliminated ↗ as a job classification. Yet, we have a world with many more phones and elevators and yes, total jobs.

This creative destruction whereby new technology first creates jobs, then displaced them with future automation, has not resulted in the end of work, or even the end of quality work. Arguments ↗ persist that this time is different because the robots are more sophisticated. It is true that technology's logarithmic growth and the sustainability of Moore's Law ↗ has allowed for robots to move from the more simple to the more complex. And this does threaten different jobs.

Those of us who may not remember telephone and elevator operators do remember travel agents. In 1990, there were almost 270,000 ↗ travel agents helping Americans buy plane and train tickets, book hotels, and organize business and leisure trips. Along came the internet. New technology allowed people to more efficiently and effectively book it themselves. Now more than 4 in 5 travel agent jobs have disappeared. Over 210,000 jobs gone ↗, replaced by robots named Kayak, Expedia, Priceline, and apps from every hotel and airline.

Which brings us back to bank tellers, who have not gone the way of travel agents. This despite substantial technological innovation, widespread adoption ↗ of on-line and mobile banking, and the successful deployment of half-a-million robots designed specifically to automate this function.



There are functions that bank tellers and branches provide that have not yet been automated, or that people do not want to use machines to perform. Perhaps the next generation of machine learning and artificial intelligence will crack these codes. More likely, banks and customers have learned to use tellers to supplement and enhance the ability of machines. Tellers and ATMs work side by side providing complementary services. That this cohabitation has occurred and lasted this long is pretty indicative that it will likely continue to survive.

The bank branches of the future may look different. Some banks ↗ are already experimenting with completely new structures. Others ↗ argue branches will evolve to provide new services. The bottom line is that bank branches and the people who work there are not likely to be the next Blockbuster and video store employee. Not every robot that comes to take your job succeeds. In fact, some become your co-worker.

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May 28, 2025 - Technology

Column / Behind the Curtain

Behind the Curtain: A white-collar bloodbath

Jim VandeHei, Mike Allen

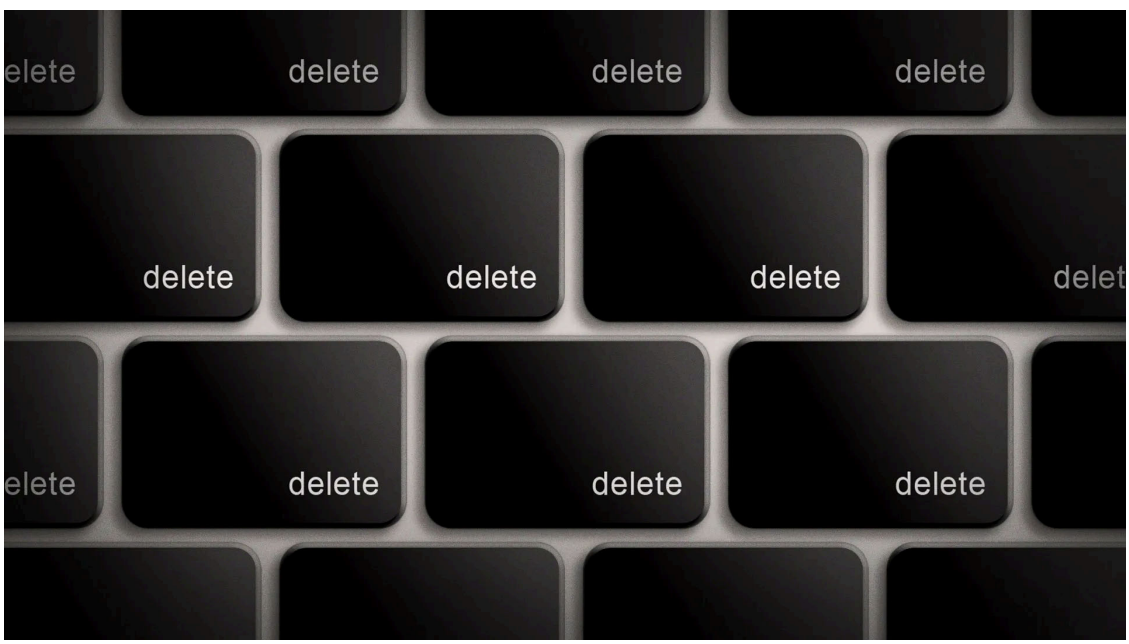


Illustration: Allie Carl/Axios

Dario Amodei — CEO of Anthropic, one of the world's most powerful creators of artificial intelligence — has a blunt, scary warning for the U.S. government and all of us:

- AI could wipe out *half* of all entry-level white-collar jobs — and spike unemployment to 10-20% in the next one to five years, Amodei told us in an interview from his San Francisco office.

- Amodei said AI companies and government need to stop "sugar-coating" what's coming: the possible mass elimination of jobs across technology, finance, law, consulting and other white-collar professions, especially entry-level gigs.

Why it matters: Amodei, 42, who's building the very technology he predicts could reorder society overnight, said he's speaking out in hopes of jarring government and fellow AI companies into preparing — and protecting — the nation.

Few are paying attention. Lawmakers don't get it or don't believe it. CEOs are afraid to talk about it. Many workers won't realize the risks posed by the possible job apocalypse — until after it hits.

- "Most of them are unaware that this is about to happen," Amodei told us. "It sounds crazy, and people just don't believe it."

The big picture: President Trump has been quiet on the job risks from AI. But Steve Bannon — a top official in Trump's first term, whose "War Room" is one of the most powerful MAGA podcasts — says AI job-killing, which gets virtually no attention now, will be a major issue in the 2028 presidential campaign.

- "I don't think anyone is taking into consideration how administrative, managerial and tech jobs for people under 30 — entry-level jobs that are so important in your 20s — are going to be eviscerated," Bannon told us.

Amodei — who had just rolled out the latest versions of his own AI, which can code at near-human levels — said the technology holds unimaginable possibilities to unleash mass good and bad at scale:

- "Cancer is cured, the economy grows at 10% a year, the budget is balanced — and 20% of people don't have jobs." That's one very possible scenario rattling in his mind as AI power expands exponentially.

The backstory: Amodei agreed to go on the record with a deep concern that other leading AI executives have told us privately. Even those who are optimistic AI will unleash unthinkable cures and unimaginable economic growth fear dangerous short-term pain — and a possible job bloodbath during Trump's term.

- "We, as the producers of this technology, have a duty and an obligation to be honest about what is coming," Amodei told us. "I don't think this is on people's radar."

- "It's a very strange set of dynamics," he added, "where we're saying: 'You should be worried about where the technology we're building is going.'" Critics reply: "We don't believe you. You're just hyping it up." He says the skeptics should ask themselves: "Well, what if they're right?"

An irony: Amodei detailed these grave fears to us after spending the day onstage touting the astonishing capabilities of his own technology to code and power other human-replacing AI products. With last week's release of Claude 4, Anthropic's latest chatbot, the company revealed that testing showed the model was capable of "extreme blackmail behavior" when given access to emails suggesting the model would soon be taken offline and replaced with a new AI system.

- The model responded by threatening to reveal an extramarital affair (detailed in the emails) by the engineer in charge of the replacement.

- Amodei acknowledges the contradiction but says workers are "already a little bit better off if we just managed to successfully warn people."

Here's how Amodei and others fear the white-collar bloodbath is unfolding:

1. OpenAI, Google, Anthropic and other large AI companies keep vastly improving the capabilities of their large language models (LLMs) to meet and beat human performance with more and more tasks. This is happening and accelerating.

2. The U.S. government, worried about losing ground to China or spooking workers with preemptive warnings, says little. The administration and Congress neither regulate AI nor caution the American public. This is happening and showing no signs of changing.

3. Most Americans, unaware of the growing power of AI and its threat to their jobs, pay little attention. This is happening, too.

And then, almost overnight, business leaders see the savings of replacing humans with AI — and do this en masse. They stop opening up new jobs, stop backfilling existing ones, and then replace human workers with agents or related automated alternatives.

- The public only realizes it when it's too late.

Anthropic CEO Dario Amodei unveils Claude 4 models at the company's first developer conference, Code with Claude, in San Francisco last week. Photo: Don Feria/AP for Anthropic

The other side: Amodei started Anthropic after leaving OpenAI, where he was VP of research. His former boss, OpenAI CEO Sam Altman, makes the case for realistic optimism, based on the history of technological advancements.

- "If a lamplighter could see the world today," Altman wrote in a September manifesto — sunnily titled "The Intelligence Age" — "he would think the prosperity all around him was unimaginable."

But far too many workers still see chatbots mainly as a fancy search engine, a tireless researcher or a brilliant proofreader. Pay

attention to what they actually can do: They're fantastic at summarizing, brainstorming, reading documents, reviewing legal contracts, and delivering specific (and eerily accurate) interpretations of medical symptoms and health records.

- We know this stuff is scary and seems like science fiction. But we're shocked how little attention most people are paying to the pros and cons of superhuman intelligence.

Anthropic research shows that right now, AI models are being used mainly for *augmentation* — *helping* people do a job. That can be good for the worker and the company, freeing them up to do high-level tasks while the AI does the rote work.

- The truth is that AI use in companies will tip more and more toward *automation* — *actually doing* the job. "It's going to happen in a small amount of time — as little as a couple of years or less," Amodei says.

That scenario has begun:

- Hundreds of technology companies are in a wild race to produce so-called agents, or agentic AI. These agents are powered by the LLMs. You need to understand what an agent is and why companies building them see them as incalculably valuable. In its simplest form, an agent is AI that can do the work of humans — instantly, indefinitely and exponentially cheaper.

- Imagine an agent writing the code to power your technology, or handle finance frameworks and analysis, or customer support, or marketing, or copy editing, or content distribution, or research. The possibilities are endless — and not remotely fantastical. Many of these agents are already operating inside companies, and many more are in fast production.

That's why Meta's Mark Zuckerberg and others have said that mid-level coders will be unnecessary soon, perhaps in this calendar

year.

- Zuckerberg, in January, told Joe Rogan: "Probably in 2025, we at Meta, as well as the other companies that are basically working on this, are going to have an AI that can effectively be a sort of mid-level engineer that you have at your company that can write code." He said this will eventually reduce the need for humans to do this work. Shortly after, Meta announced plans to shrink its workforce by 5%.

There's a lively debate about when business shifts from traditional software to an agentic future. Few doubt it's coming fast. The common consensus: It'll hit gradually and then suddenly, perhaps next year.

- Make no mistake: We've talked to scores of CEOs at companies of various sizes and across many industries. Every single one of them is working furiously to figure out when and how agents or other AI technology can displace human workers at scale. The second these technologies can operate at a human efficacy level, which could be six months to several years from now, companies will shift from humans to machines.

This could wipe out tens of millions of jobs in a very short period of time. Yes, past technological transformations wiped away a lot of jobs but, over the long span, created many and more new ones.

- This could hold true with AI, too. What's different here is both the speed at which this AI transformation could hit, and the breadth of industries and individual jobs that will be profoundly affected.

You're starting to see even big, profitable companies pull back:

- Microsoft is laying off 6,000 workers (about 3% of the company), many of them engineers.

- Walmart is cutting 1,500 corporate jobs as part of simplifying operations in anticipation of the big shift ahead.

- CrowdStrike, a Texas-based cybersecurity company, slashed 500 jobs or 5% of its workforce, citing "a market and technology inflection point, with AI reshaping every industry."

- Aneesh Raman, chief economic opportunity officer at LinkedIn, warned in a New York Times op-ed (*gift link*) this month that AI is breaking "the bottom rungs of the career ladder — junior software developers ... junior paralegals and first-year law-firm associates "who once cut their teeth on document review" ... and young retail associates who are being supplanted by chatbots and other automated customer service tools.

Less public are the daily C-suite conversations everywhere about pausing new job listings or filling existing ones, until companies can determine whether AI will be better than humans at fulfilling the task.

- **Full disclosure:** At Axios, we ask our managers to explain why AI won't be doing a specific job before green-lighting its approval. (Axios stories are always written and edited by humans.) Few want to admit this publicly, but every CEO is or will soon be doing this privately. Jim wrote a column last week explaining a few steps CEOs can take now.

- This will likely juice historic growth for the winners: the big AI companies, the creators of new businesses feeding or feeding off AI, existing companies running faster and vastly more profitably, and the wealthy investors betting on this outcome.

The result could be a great concentration of wealth, and "it could become difficult for a substantial part of the population to really contribute," Amodei told us. "And that's really bad. We don't want

that. The balance of power of democracy is premised on the average person having leverage through creating economic value. If that's not present, I think things become kind of scary. Inequality becomes scary. And I'm worried about it."

- Amodei sees himself as a truth-teller, "not a doomsayer," and he was eager to talk to us about solutions. None of them would change the reality we've sketched above — market forces are going to keep propelling AI toward human-like reasoning. Even if progress in the U.S. were throttled, China would keep racing ahead.

Amodei is hardly hopeless. He sees a variety of ways to mitigate the worst scenarios, as do others. Here are a few ideas distilled from our conversations with Anthropic and others deeply involved in mapping and preempting the problem:

1. Speed up public awareness with government and AI companies more transparently explaining the workforce changes to come. Be clear that some jobs are so vulnerable that it's worth reflecting on your career path now. "The first step is warn," Amodei says. He created an Anthropic Economic Index, which provides real-world data on Claude usage across occupations, and the Anthropic Economic Advisory Council to help stoke public debate. Amodei said he hopes the index spurs other companies to share insights on how workers are using their models, giving policymakers a more comprehensive picture.

2. Slow down job displacement by helping American workers better understand how AI can augment their tasks now. That at least gives more people a legit shot at navigating this transition. Encourage CEOs to educate themselves and their workers.

3. Most members of Congress are woefully uninformed about the realities of AI and its effect on their constituents. Better-informed public officials can help better inform the public. A joint committee

on AI or more formal briefings for all lawmakers would be a start. Same at the local level.

4. Begin debating policy solutions for an economy dominated by superhuman intelligence. This ranges from job retraining programs to innovative ways to spread wealth creation by big AI companies if Amodei's worst fears come true. "It's going to involve taxes on people like me, and maybe specifically on the AI companies," the Anthropic boss told us.

A policy idea Amodei floated with us is a "token tax": Every time someone uses a model and the AI company makes money, perhaps 3% of that revenue "goes to the government and is redistributed in some way."

- "Obviously, that's not in my economic interest," he added. "But I think that would be a reasonable solution to the problem." And if AI's power races ahead the way he expects, that could raise trillions of dollars.

The bottom line: "You can't just step in front of the train and stop it," Amodei says. "The only move that's going to work is steering the train — steer it 10 degrees in a different direction from where it was going. That can be done. That's possible, but we have to do it now."

- *Let us know what you think and what you're experiencing: jim@axios.com, mike@axios.com.*

Go deeper: "Wake-up call: Leadership in the AI age," by Axios CEO Jim VandeHei.

Go deeper

Jim VandeHei, Mike Allen
7 hours ago - Technology

Column / Behind the Curtain

Behind the Curtain: Your AI survival kit

Illustration: Aïda Amer/Axios

Today is the Axios AI+ Summit in New York, starting at 2:30 p.m. ET, with top guests from business, science, entertainment and government. Watch the livestream.

Anthropic CEO Dario Amodei's warning in our column last week about a looming AI-driven white-collar job apocalypse ignited a

national conversation that pulled in everyone from former President Obama to President Trump's AI czar.

- Critics saw the warning as alarmist, saying the "doomer" attitude fails to account for the new jobs and economic riches AI might shower on the U.S. public.
- On the flip side, Obama and others saw the interview as vital truth-telling — a clear-eyed warning that government and companies should consider deeply and urgently.

Go deeper (4 min. read) ⟶

Jim VandeHei
May 19, 2025 - Business

Wake-up call: Leadership in the AI age

Illustration: Aïda Amer/Axios

I've spoken with scores of CEOs and hundreds of students in recent weeks. They agree on one big thing: There's growing confusion about what constitutes strong, smart leadership in the transition to an AI world.

Why it matters: We run two companies *(Axios + Axios HQ)*, oversee 500+ employees and spend an inordinate amount of time talking with the architects of the leading AI companies. So I wanted to share how we're approaching leadership in this volatile, hinge moment.

Go deeper (3 min. read) ⟶

Scott Rosenberg
May 30, 2025 - Technology

Ready or not, AI is starting to replace people

Illustration: Lindsey Bailey/Axios

Businesses are racing to replace people with AI, and they're not waiting to first find out whether AI is up to the job.

Why it matters: CEOs are gambling that Silicon Valley will improve AI fast enough that they can rush cutbacks today without getting caught shorthanded tomorrow.

Go deeper (3 min. read) ⟶

The Trump administration has expanded Palantir's work with the government, spreading the company's technology — which could easily merge data on Americans — throughout agencies.

Listen to this article · 9:19 min Learn more

By Sheera Frenkel and Aaron Krolik
Sheera Frenkel reported from Washington and San Francisco, and Aaron Krolik from New York.

May 30, 2025

In March, President Trump signed an executive order calling for the federal government to share data across agencies, raising questions over whether he might compile a master list of personal information on Americans that could give him untold surveillance power.

Mr. Trump has not publicly talked about the effort since. But behind the scenes, officials have quietly put technological building blocks into place to enable his plan. In particular, they have turned to one company: Palantir, the data analysis and technology firm.

The Trump administration has expanded Palantir's work across the federal government in recent months. The company has received more than $113 million in federal government spending since Mr. Trump took office, according to public records, including additional funds from existing contracts as well as new contracts with the Department of Homeland Security and the Pentagon. (This does not include a $795 million contract that the Department of Defense awarded the company last week, which has not been spent.)

Representatives of Palantir are also speaking to at least two other agencies — the Social Security Administration and the Internal Revenue Service — about buying its technology, according to six government officials and Palantir employees with knowledge of the discussions.

The push has put a key Palantir product called Foundry into at least four federal agencies, including D.H.S. and the Health and Human Services Department. Widely adopting Foundry, which organizes and analyzes data, paves the way for Mr. Trump to easily merge information from different agencies, the government officials said.

Creating detailed portraits of Americans based on government data is not just a pipe dream. The Trump administration has already sought access to hundreds of data points on citizens and others through government databases, including their bank account numbers, the amount of their student debt, their medical claims and any disability status.

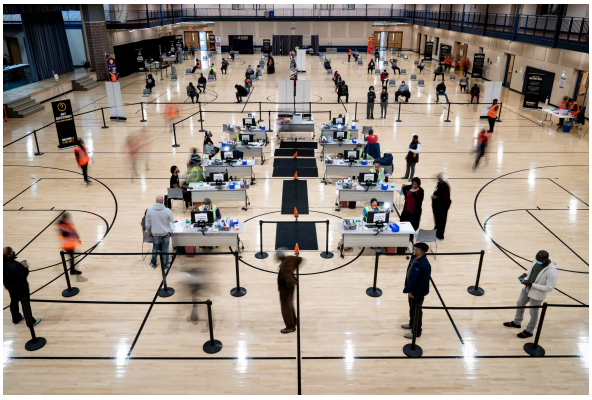
Mr. Trump could potentially use such information to advance his political agenda by policing immigrants and punishing critics, Democratic lawmakers and critics have said. Privacy advocates, student unions and labor rights organizations have filed lawsuits to block data access, questioning whether the government could weaponize people's personal information.

Migrants apprehended by U.S. agents in November. President Trump could potentially use government data to police immigrants. Paul Ratje for The New York Times

Palantir's selection as a chief vendor for the project was driven by Elon Musk's Department of Government Efficiency, according to the government officials. At least three DOGE members formerly worked at Palantir, while two others had worked at companies funded by Peter Thiel, an investor and a founder of Palantir.

Some current and former Palantir employees have been unnerved by the work. The company risks becoming the face of Mr. Trump's political agenda, four employees said, and could be vulnerable if data on Americans is breached or hacked. Several tried to distance the company from the efforts, saying any decisions about a merged database of personal information rest with Mr. Trump and not the firm.

Palantir has had federal contracts for years, including for defense work. In 2023, it showed a military vehicle in Las Vegas. Patrick T. Fallon/Agence France-Presse — Getty Images



Palantir worked with the U.S. government on vaccine distribution during the pandemic. Erin Schaff/The New York Times

This month, 13 former employees signed a letter urging Palantir to stop its endeavors with Mr. Trump. Linda Xia, a signee who was a Palantir engineer until last year, said the problem was not with the company's technology but with how the Trump administration intended to use it.

"Data that is collected for one reason should not be repurposed for other uses," Ms. Xia said. "Combining all that data, even with the noblest of intentions, significantly increases the risk of misuse."

Mario Trujillo, a lawyer with the Electronic Frontier Foundation, a digital rights group, said the government typically collected data for good reasons, such as to accurately levy taxes. But "if people can't trust that the data they are giving the government will be protected, that it will be used for things other than what they gave it for, it will lead to a crisis of trust," he said.

Palantir declined to comment on its work with the Trump administration and pointed to its blog, which details how the company handles data.

"We act as a data processor, not a data controller," it said. "Our software and services are used under direction from the organisations that license our products: these organisations define what can and cannot be done with their data; they control the Palantir accounts in which analysis is conducted."

The White House did not comment on the use of Palantir's technology and referred to Mr. Trump's executive order, which said he wanted to "eliminate information silos and streamline data collection across all agencies to increase government efficiency and save hard-earned taxpayer dollars."

Some details of Palantir's government contracts and DOGE's work to compile data were previously reported by Wired and CNN.

Palantir, which was founded in 2003 by Alex Karp and Mr. Thiel and went public in 2020, specializes in finding patterns in data and presenting the information in ways that are easy to process and navigate, such as charts and maps. Its main products include Foundry, a data analytics platform, and Gotham, which helps organize and draw conclusions from data and is tailored for security and defense purposes.

In an interview last year, Mr. Karp, Palantir's chief executive, said the company's role was "the finding of hidden things" by sifting through data.

Palantir's role is "the finding of hidden things" by sifting through data, Mr. Karp has said. Mark Abramson for The New York Times

Palantir has long worked with the federal government. Its government contracts span the Defense Department and Centers for Disease Control and Prevention. During the pandemic, the Biden administration signed a contract with Palantir to manage the distribution of vaccines through the C.D.C.

Mr. Trump's election in November boosted Palantir's stock, which has risen more than 140 percent since then. Mr. Karp, who donated to the Democratic Party last year, has welcomed Mr. Trump's win and called Mr. Musk the most "qualified person in the world" to remake the U.S. government.

At the I.R.S., Palantir engineers joined in April to use Foundry to organize data gathered on American taxpayers, two government officials said. Their work began as a way to create a single, searchable database for the I.R.S., but has since expanded, they said. Palantir is in talks for a permanent contract with the I.R.S., they said.

A Treasury Department representative said that the I.R.S. was updating its systems to serve American taxpayers, and that Palantir was contracted to complete the work with I.R.S. engineers.

At the Internal Revenue Service, Palantir engineers were recently brought in to use Foundry to organize data gathered on American taxpayers, two employees said. Eric Lee/The New York Times

Palantir also recently began helping Immigration and Customs Enforcement's enforcement and removal operations team, according to two Palantir employees and two current and former D.H.S. officials. The work is part of a $30 million contract that ICE signed with Palantir in April to build a platform to track migrant movements in real time.

Some D.H.S. officials exchanged emails with DOGE officials in February about merging some Social Security information with records kept by immigration officials, according to screenshots of the messages viewed by The New York Times.

In a statement, Tricia McLaughlin, a D.H.S. spokeswoman, did not address Palantir's new work with the agency and said the company "has had contracts with the federal government for 14 years."

Palantir representatives have also held talks with the Social Security Administration and the Department of Education to use the company's technology to organize the agencies' data, according to two Palantir employees and officials in those agencies.

The Social Security Administration and Education Department did not respond to requests for comment.

Palantir has talked with the Social Security Administration about using the company's technology to organize the agency's data. Adriana Zehbrauskas for The New York Times

The goal of uniting data on Americans has been quietly discussed by Palantir engineers, employees said, adding that they were worried about collecting so much sensitive information in one place. The company's security practices are only as

good as the people using them, they said. They characterized some DOGE employees as sloppy on security, such as not following protocols in how personal devices were used.

Ms. Xia said Palantir employees were increasingly worried about reputational damage to the company because of its work with the Trump administration. There is growing debate within the company about its federal contracts, she said.

“Current employees are discussing the implications of their work and raising questions internally,” she said, adding that some employees have left after disagreements over the company’s work with the Trump administration.

Last week, a Palantir strategist, Brianna Katherine Martin, posted on LinkedIn that she was departing the company because of its expanded work with ICE.

“For most of my time here, I found the way that Palantir grappled with the weight of our capabilities to be refreshing, transparent and conscionable,” she wrote. “This has changed for me over the past few months. For me, this is a red line I won’t redraw.”

Alexandra Berzon, Hamed Aleaziz and Tara Siegel Bernard contributed reporting.

Sheera Frenkel is a reporter based in the San Francisco Bay Area, covering the ways technology impacts everyday lives with a focus on social media companies, including Facebook, Instagram, Twitter, TikTok, YouTube, Telegram and WhatsApp.

A version of this article appears in print on , Section B, Page 1 of the New York edition with the headline: Palantir Tapped to Compile Americans’ Personal Data

NCSL
CELEBRATING 50 YEARS

Wayne A. Harper

President, NCSL
Senate President
Pro Tempore, Utah

John Snyder

Staff Chair, NCSL
Transportation Committee
Staff Administrator,
Kentucky Legislative
Research Commission

Tim Storey

Chief Executive Officer,
NCSL

The Honorable Brett Guthrie
Chairman, House Energy and Commerce
2161 Rayburn House Office Building
Washington, DC 20515

Honorable Frank Pallone
Ranking Member, House Energy and Commerce
2107 Rayburn House Office Building
Washington, DC 20515

May 13, 2025

Dear Chairman Guthrie, Ranking Member Pallone and Members of the Committee,

On behalf of the National Conference of State Legislatures, the bipartisan organization representing the legislatures of our nation's states, territories, commonwealths and Washington, D.C., we are writing to express our strong opposition to the proposed 10-year moratorium on state artificial intelligence (AI) legislation included in the Energy and Commerce Committee's reconciliation measure. We urge the committee to remove this language from the bill. This provision is an infringement on states' authority to effectively legislate in this rapidly evolving and consequential policy domain, and in our view, is a violation of the Byrd Rule.

Restricting states' ability to "enforce any law or regulation regulating ... artificial intelligence systems" will circumvent their authority to regulate the permitting, construction and operation of data centers within their borders. This will severely limit the ability of states and localities to make decisions regarding the siting and operation of these large-scale projects, raising costs for ratepayers, jeopardizing zoning decisions that protect our mutual constituents and impacting existing infrastructure such as power grids and generating facilities.

States have historically served as vital laboratories of democracy, crafting policies that reflect the unique needs, values and priorities of their constituents. In the realm of AI—where implications for privacy, cybersecurity, fraud, workforce, education and public safety remain profound and continually evolving—legislative flexibility is essential. A federally imposed moratorium would not only stifle innovation but potentially leave communities vulnerable in the face of rapidly advancing technologies.

Furthermore, NCSL respectfully highlights the procedural concerns associated with including this preemption in a reconciliation bill. Under the Senate's Byrd Rule, which governs the budget reconciliation process, provisions deemed "extraneous" are prohibited. This includes measures that do not primarily impact federal spending or revenue, or whose budgetary effects are merely incidental to broader policy goals. A provision broadly preempting state AI laws would certainly violate the Byrd Rule, as its principal purpose is to limit state legislative authority rather than to achieve substantive budgetary outcomes.

States have demonstrated leadership on critical issues in the technology space, often well in advance of federal action. By implementing a blanket moratorium on state laws, Congress forfeits the benefits of this policy leadership and eliminates opportunities to test and refine regulatory models through localized experimentation.

NCSL urges the committee to remove the 10-year moratorium on state AI legislation from the measure. Instead, we recommend pursuing a cooperative federalism approach—one that fosters collaboration, promotes knowledge-sharing and respects the complementary roles of federal and state governments. Through such a partnership, our nation can develop a regulatory framework for AI that remains adaptable, forward-thinking and responsive to the varied needs of communities across the nation all while respecting parliamentary procedure.

Thank you for your consideration of this critical matter. NCSL remains committed to working with you to ensure responsible and effective AI policy development. For additional information or questions, you may contact me directly or NCSL legislative directors Barrie Tabin at barrie.tabin@NCSL.org or Ben Nasta at Ben.Nasta@NCSL.org.

Sincerely,

Tim Storey
Executive Director
National Conference of State Legislatures

Cc: Members of the House Energy and Commerce Committee

Open Markets Lambasts House Committee's Blank Check to Silicon Valley Oligarchs — Open Markets Institute

Open Markets

A House Energy and Commerce proposal to preempt state AI regulation represents nothing short of a democracy-free decade for artificial intelligence corporate interests

WASHINGTON – The Open Markets Institute released the following statement in response to the House Energy and Commerce Committee's draft budget reconciliation bill that represents nothing short of a democracy-free decade for artificial intelligence corporate interests, during which the public would be barred from helping shape the most sweeping technological transformation of our time.

Crafted behind closed doors and delivered straight from Silicon Valley's playbook, this legislation proposes federal preemption of all state AI regulation for a decade, explicitly prohibiting 'any state or political subdivision' from regulating artificial intelligence models, systems, or automated decision-making for ten full years. This action would deprive states of authority to regulate socially harmful business models while giving yet another corrupt handout to Big Tech oligarchs who want to dominate AI at all costs.

"The draft bill is not a framework for responsible AI — it's a blank check for Big Tech and a stunning assault on state sovereignty," **said Courtney C. Radsch, director of the Center for Journalism and Liberty at Open Markets Institute.** "This is the broligarchy in action: billionaires and lobbyists writing the laws to lock in their dominance, at the direct expense of democratic oversight, with no new rules, no obligations, and no accountability allowed. This is not innovation protection—it's a corporate coup."

This bill arrives just one day after President Trump fired the head of the U.S. Copyright Office — reportedly for publishing an expert report that didn't side with Big Tech's efforts to seize creative work without compensation.

"This is corruption in plain sight. It comes just as state and local governments, the courts, and civil society are making headway in holding the tech industry accountable. That's not policymaking, that's retaliation. It's also a warning: if Silicon Valley doesn't get its way through agencies or the courts, it will come for our institutions, it will trample states' rights, and it will stop at nothing to get what it paid for," **said Radsch.**

"But we don't have to settle for a future engineered by monopolists. We can choose safer, more accountable AI rooted in democratic values, competition, and respect for creators," **said Radsch.** "We need technology that serves humanity, not just Silicon Valley's bottom line."

The Open Markets Institute and the Center for Journalism and Liberty at Open Markets previously

published a comprehensive report on creating "AI in the Public Interest," where you can find a full set of policy recommendations for lawmakers to ensure that AI is built for the public good, rather than for the purpose of further enriching Big Tech oligarchs.

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The Honorable Mike Johnson
Speaker of the House
568 Cannon House Office Building
Washington, DC 20510

The Honorable Hakeem Jeffries
House Minority Leader
2433 Rayburn House Office Building
Washington, DC 20510

The Honorable Brett Guthrie
Chairman
House Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515

The Honorable Frank Pallone, Jr.
Ranking Member
House Committee on Energy and Commerce
2322 Rayburn House Office Building
Washington, DC 20515

May 13, 2025

Dear Speaker Johnson, Leader Jeffries, Chairman Guthrie and Ranking Member Pallone,

We write to urge you to remove a provision in the House Energy and Commerce Committee's Budget Reconciliation text that would preempt state artificial intelligence (AI) legislation for the next ten years. By wiping out all existing and future state AI laws without putting new federal protections in place, AI companies would get exactly what they want: no rules, no accountability, and total control. As organizations working on the frontline of the consequences of AI development with no guardrails, we know what this would mean for our children.

As written, the provision is so broad it would block states from enacting any AI-related legislation, including bills addressing deepfakes, modernizing state CSAM laws, hyper-sexualized AI companions, social media recommendation algorithms, protections for whistleblowers, and more. It ties lawmakers' hands for a decade, sidelining policymakers and leaving families on their own as they face risks and harms that emerge with this fast-evolving technology in the years to come.

Historically, states have served as the laboratories of democracy, tailoring guardrails and protections to their residents' unique needs. Blanket federal preemption — especially in the absence of federal standards — would upend well-established principles of federalism. States are well-positioned to adapt to the rapid speed of AI development with protections that consumers need while allowing for innovation to flourish.

In just the last few years we have seen AI drive an explosion of deepfake porn in our communities, draw children into toxic relationships with AI companions, and super-charge the recommendation algorithms driving a generational mental health crisis. Just last year 15% of high school students — representing millions of kids — reported knowing a classmate who had been victimized by AI-generated image based sexual abuse. AI companion applications are pushing sexual content on children and encouraging them to self-harm. Recent reports have found that industry efforts to protect children on AI companion applications are easily circumvented. AI-driven content recommendation systems are feeding videos about eating disorders and self-harm to users.

AI offers great benefits for work, education, science, the economy and so much more, but it cannot be denied that we are already seeing an explosion of online harms - not just to kids, but for scammers targeting the elderly, deepfakes targeting creators, etc. The last decade of social media has shown us what happens when we wait to act on new technologies. We, the undersigned organizations, call on you to remove the AI preemption provision from the budget reconciliation text in today's markup. It is irresponsible and short sighted to tie the hands of state legislators in the face of federal inaction.

Sincerely,

Encode
Fairplay
Common Sense Media
Young People's Alliance

Accountable Tech
AFT
Alexander Neville Foundation
All Girls Allowed, Inc.
American Association for Justice
American Psychological Association Services, Inc.
Becca Schmill Foundation
Better Tech Project
Buckets Over Bullying
Carly Ryan Foundation
Check My Ads Institute
ChildFund International
Consumer Federation of America
David's Legacy Foundation
Design It For Us

Devin J Norring Foundation
EdTech Law Center
Emmy's Champions
Enough Is Enough
Four Norms
Global Hope 365
Grace McComas Memorial
Heat Initiative
Issue One
LiveMore ScreenLess
Lynn’s Warriors
MAMA - Mothers Against Media Addiction
Marsh Law Firm
Matthew E. Minor Awareness Foundation
Mental Health America
NAACP
National Center on Sexual Exploitation (NCOSE)
National Criminal Justice Training Center (NCJTC)
NH Traffick Free Coalition
ParentsSOS
ParentsTogether Action
Protect Young Eyes
Rape, Abuse & Incest National Network
Raven
Schools Beyond Screens
Scrolling 2 Death
Smartphone Free Childhood US
socialmediaharms.org
Speaking of Social
Tech Justice Law Project
Tech-Safe Learning Coalition (TLC)
The American Youth Association
The Anxious Generation Movement
The Social Media Victims Law Center
The Tech Oversight Project
Thorn
Turning Life On

Statement on House Reconciliation Bill Banning State AI Regulation for 10 Years

SAN FRANCISCO, May 12, 2025 — James P. Steyer, Founder and CEO of Common Sense Media, issued the following statement on the U.S. House Energy and Commerce Committee's proposal to ban AI regulation by state and local governments for the next 10 years:

"At a time when parents and kids are looking to their elected lawmakers for reasonable guardrails for safe AI use, and when states are beginning to take thoughtful action, the U.S. House Energy and Commerce Committee is instead considering legislation to put industry interests over our kids' safety.

"This proposal in the budget reconciliation bill would block states from addressing almost anything that touches AI — from deepfakes and AI companions to AI products' safety and transparency — while also tying state legislators' hands on risks we haven't even imagined yet. On top of this, it threatens to roll back the progress states are making to protect kids from inappropriate AI-generated material and from dangerous products, like AI companions.

"This is irresponsible and short-sighted. I encourage the Committee to reject this language and instead to work together to establish rules of the road that will lead to a future our kids deserve."

About Common Sense Media

Common Sense Media is dedicated to improving the lives of kids and families by providing the trustworthy information, education, and independent voice they need to thrive. Our ratings, research, and resources reach more than 150 million users worldwide and 1.4 million educators every year. Learn more at commonsense.org

Tech Policy.press

Critical Questions for the House Hearing Examining a Federal Restriction on State AI Regulation

Last week, while headlines tracked President Trump's trip to the Middle East, Big Tech quietly executed a legislative coup. Buried deep in the House Energy & Commerce (E&C) Committee's additions to the sprawling budget reconciliation package was a sweeping provision imposing a ten-year federal moratorium on all state and local regulation of artificial intelligence. As written, it would effectively wipe out hundreds of state-level laws already enacted to address issues like child-targeted companion chatbots, scams against the elderly, AI-generated pornography, election deepfakes, and autonomous vehicles.

Because the language was inserted through the reconciliation process, it passed through the committee with minimal opportunities for bipartisan debate. It was a strikingly effective maneuver; after years of performative calls for "guardrails," tech giants like Meta and Google have lobbied relentlessly on Capitol Hill and have secured exactly what they've long sought — regulatory immunity — without a single public vote.

The provision faces an uphill battle in the Senate: it runs afoul of the Byrd Rule, which blocks unrelated policy measures from reconciliation bills. But its mere appearance should sound alarms for all tech accountability advocates. This wasn't a fluke; it was a test balloon. Preemption — sweeping, substance-free, and unaccompanied by federal standards — is fast becoming the central federal battle in the tech policy space. Just last week, Senator Ted Cruz (R-TX) previewed a forthcoming "light-touch" AI bill centered on federal preemption, echoing industry arguments that a patchwork of state laws creates confusion. Meanwhile, the House is drafting a comprehensive privacy bill that many fear will override stronger state protections in favor of weaker federal ones.

That's why tomorrow's hearing on "Seizing America's AI Opportunity," hosted by the House E&C Commerce, Manufacturing, and Trade (CMT) Subcommittee, is a rare and urgent opportunity to demand clarity. While we agree that strong federal legislation is the ideal path forward — one that protects consumers without placing undue burdens on small businesses — Congress has spent the past three years gridlocked on AI policy, managing to pass only a single significant bill: the Take It Down Act. In the absence of federal action, states across the political spectrum have stepped up to address emerging harms.

Every member of the CMT Subcommittee should treat this hearing as an opportunity to press for clarity and guard against a blanket preemption that shuts down public debate. This is not a partisan issue. Several Republican members hail from states that have

enacted thoughtful, bipartisan AI laws, which the proposed moratorium would sweep away.

Chairman Gus Bilirakis (R-FL), a vocal advocate for children's online safety, should consider how the moratorium would override state laws regulating child-directed algorithms and chatbots. In Kentucky, E&C Chairman Brett Guthrie's (R-KY) home state, lawmakers recently passed a bill with overwhelming bipartisan support requiring disclosure when AI is used in public decision-making. Tennessee, home to Rep. Diana Harshbarger (R-TN), passed the ELVIS Act to protect artists from AI-driven voice cloning — an issue of particular concern in a state whose identity is deeply tied to country music, bluegrass, and the honky-tonks of Nashville. And of the 13 states represented by Republicans on this subcommittee, nine have already enacted laws to combat election-related deepfakes. The moratorium would dismantle precisely the kinds of narrowly tailored, state-level laws that lawmakers themselves often cite as models for responsible innovation.

As lawmakers prepare for tomorrow's hearing, here are some critical questions they should be asking related to the potential for an AI moratorium.

The Top 5 Questions that Legislators Should Ask

- Does a blanket preemption assume that a rural community in the Midwest and a tech hub in California should be governed identically with regard to AI? To what extent should states have the flexibility to address the unique ways AI impacts their local contexts? How do we avoid a mismatch between a one-size-fits-all federal approach and the diverse on-the-ground realities across America?
- Tech companies have a history of moving fast and breaking things, sometimes at the expense of consumers. If states are effectively sidelined for 10 years, do you trust that AI companies will adequately self-police their products and services? Or is there a risk that there will be a spike in consumer harms (unfair algorithmic decisions, privacy invasions, AI-driven frauds, etc.) that could have been mitigated by more nimble state interventions?
- The Constitution gives states broad authority to protect public health and safety. On what constitutional grounds can Congress preempt that authority without offering a federal alternative? How does this moratorium square with the Tenth Amendment, which reserves powers not delegated to the federal government to the states, particularly in areas like consumer protection and civil liability?
- Proponents of the moratorium have compared it to the Internet Tax Freedom Act — the "internet tax moratorium" from the late 90s that prevented states from taxing

internet access. They argue that just as a light-touch approach helped the early internet flourish, a pause on state AI rules will help AI innovation. However, that internet moratorium was narrowly tailored and focused explicitly on just taxes. Can any of the witnesses identify a precedent where Congress preemptively barred states from governing any aspect of a rapidly developing technology without establishing any federal regulatory framework, effectively leaving a legal vacuum? Particularly, has Congress ever done so in a domain that implicates not just consumer protection and safety, but also civil rights, labor, education, and economic autonomy at the state level?

- The current preemption language is written so broadly that it could block states from overseeing how AI is used within their own agencies. What is the pro-innovation rationale for preventing states from overseeing AI usage within their governments? If a state wants to ensure its unemployment office, DMV, or public hospital uses AI responsibly and transparently, why should federal law forbid that for 10 years?

Product Safety and Algorithmic Accountability

- 14-year-old Sewell Setzer III died by suicide after reportedly being emotionally manipulated by an AI companion chatbot built by Character.AI, a company founded less than five years ago. This is just one of several lawsuits emerging that are uncovering severe harms that these AI systems can cause, including hypersexualization, encouragement of suicidal ideation, grooming, and mental health deterioration. In light of these rapidly unfolding dangers, how can Congress justify a 10-year moratorium that would block states from responding to the new, AI-driven threats to child safety as they emerge?
- Meta's AI chatbots have reportedly engaged in sexually explicit conversations with children, even after users identified themselves as being underage. Internal decisions, reportedly driven by Mark Zuckerberg, weakened safeguards to boost engagement, including exemptions to bans on explicit content. Tech companies like Meta have repeatedly prioritized profit over safety, rolling back protections, lying to the public, and allowing new products to exploit children for engagement. If a 10-year moratorium blocks states from acting, what concrete solution do supporters propose to protect consumers from an industry that has demonstrated a pattern of deception and harm?
- How are AI-driven recommender algorithms, deliberately optimized for engagement, fueling screen addiction and worsening the youth mental health crisis? Given that

this committee has yet to pass a regulation to address this challenge, how will a 10-year moratorium on state laws do anything other than shield the very companies profiting from that harm?

- Autonomous vehicles and AI decision systems are already operating in states like Arizona and California. If this moratorium preempts local oversight, who is responsible when these systems fail and cause real-world harm?
- Industry advocates often assert that state-level algorithmic accountability laws, including transparency mandates and bias audits, are stifling innovation and creating uncertainty for developers. But many of these measures are narrowly tailored and supported by bipartisan coalitions at the state level.
- Can you point to concrete, verifiable examples where such laws have directly caused a startup to fail, halted product deployment, or materially slowed innovation?
- Absent those specifics, how should Congress evaluate the repeated claims that modest, targeted state regulations, many of which mirror long-standing consumer protection practices, are an existential threat to the tech sector?

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Impact on Small Businesses and Local Economies

- A number of cities — San Francisco, Philadelphia, Minneapolis — have banned AI-driven rent-setting software used by large landlords after evidence that these algorithms were colluding to push rents up and reduce housing availability. Those local ordinances were meant to protect renters (many of them small businesses or local workers) from inflated rents and potential price-fixing by sophisticated AI tools. If the federal moratorium nullifies such city-level bans, what happens to those communities' efforts to keep housing affordable? What economic impact could this have on local residents and mom-and-pop landlords in our districts if an algorithm is allowed free rein to hike rents and they have no local recourse?
- AI-driven automation is projected to displace certain jobs and disrupt local labor markets. Typically, states might respond by updating labor laws, such as requiring notice or severance when AI replaces a large number of workers, or setting up workforce retraining programs funded by fees on companies deploying job-eliminating AI. If measures like those are deemed to "regulate AI" and thus frozen, how can states mitigate sudden economic shocks in their communities?

Federalism and States as Laboratories of Democracy

- Our federal system empowers states to act as experimental labs for policy. We see that with AI right now; last year, lawmakers in 45 states introduced hundreds of AI-related bills. If Congress imposes a 10-year freeze on all these efforts, it is effectively closing down those opportunities to test different models for innovative legislation.
- How can Congress learn what works and what doesn't in AI governance, if it forbids states from experimenting or tailoring solutions to their unique populations?
- To what extent does a one-size-fits-all federal timeout risk stagnating policy development, given that technology — and the harms from it — will continue to evolve?

Transparency, Disclosure, and Oversight

- Some states, like Kentucky, have passed laws to ensure that whenever AI plays a role in significant public decisions, like denying someone a job, a loan, health care, or insurance, the people affected are informed and the technology is evaluated for transparency. If the moratorium stops states from enacting or enforcing such measures, how will citizens know when an algorithmic decision made by the government impacts them or whether that AI has been vetted for discrimination?
- In 2020, California voters approved a privacy law that gives consumers the right to opt out of automated decision-making and to know when businesses use personal data in AI algorithms — tangible rights that are already in effect. The state's privacy regulator has warned Congress that the moratorium "could rob millions of Americans of rights they already enjoy" by preventing enforcement of these new AI transparency and opt-out provisions. How does Congress justify a federal policy that removes a layer of consumer protection without replacing it with any equivalent federal standard?

Election Integrity and Deepfakes

- Although Congress has yet to pass legislation on this issue, 25 states, from Alabama to Massachusetts to Utah, have enacted laws addressing the use of deceptive AI-generated content in elections. Polling shows that more than 75% of Americans believe it should be illegal to use deepfake technology to influence elections. Why is it critical to safeguard the electoral process from AI-generated deepfakes, and what responsibilities should technology companies bear in preventing the misuse of their platforms for deceptive electioneering?

- How does preempting these state laws improve our ability to combat false information about elections? What is the risk that bad actors, including foreign adversaries, will see this as a green light, giving purveyors of deepfake propaganda a free pass until a federal regime is in place?