



TESTIMONY OF

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ON

“How are Federal Agencies Harnessing Artificial Intelligence?”

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Chairwoman Mace, Ranking Member Connolly, and distinguished Members of the Subcommittee, thank you for the opportunity to testify before you today. Every day the Department of Homeland Security (DHS) interacts with more people than any other federal agency, from travelers moving through our air, land, and seaports, to businesses importing goods into our country, to disaster survivors applying for assistance and immigrants applying for benefits. Our employees work around the clock to defend our nation from all manner of threats. Artificial Intelligence (AI) technologies already play a critical role in supporting our missions, and with the appropriate safeguards in place, they offer tremendous potential to further transform our operations in the years to come to improve the experiences of the people we serve and enhance our national security.

DHS will lead in the responsible use of AI to secure the homeland and defend against malicious use of this transformational technology. As we do this, we will ensure that our use of AI fully respects civil and human rights, is rigorously tested to avoid bias, disparate impact, privacy harms, and other risks, and that it is clearly explainable to the people we serve. To lead this effort, Secretary Mayorkas charged me and the Under Secretary for Science and Technology (S&T), Dimitri Kusnezov, to chair a Department-wide Artificial Intelligence Task Force (AITF).

Today, I will share concrete use cases where we are already seeing benefits from AI, our vision for harnessing the potential of this technology across the Department, and the comprehensive measures we are taking to ensure that our use of AI is safe, responsible, and rights-respecting.

DHS is using AI to keep fentanyl and other dangerous drugs out of our country.

Every day, the San Ysidro Port of Entry (POE) in San Diego California processes over 40,000 passenger vehicles entering our country. These travelers do not generally submit any advance information to U.S. Customs and Border Protection (CBP) as they would if arriving by air. The CBP Officers they encounter at primary inspection have less than a minute to assess risk by observing human behavior and reviewing available biographic and vehicle information.

Recently, a car drove north from Mexico and approached the San Ysidro POE. In the past, the CBP Officer would have no cause to inspect this car with greater rigor than a normal stop. In this case, one of CBP's increasingly advanced machine learning (ML) models, operating in less than 1.4 seconds, identified a potentially suspicious pattern in the vehicle's crossing history and flagged it via an alert for further review by CBP Officers. After considering the alert, the CBP Officer decided to refer the car to secondary inspection, where CBP Officers discovered packages concealed in the vehicle's rear quarter panels and gas tank containing over 75 kilograms of narcotics. CBP Officers seized the drugs and vehicle and arrested the driver and passenger. If not for this use of AI, these narcotics could have been on our streets and those smugglers could have been admitted into our country.

CBP's models act as a force multiplier, improving the performance of limited inspection resources and enhancing the judgment and decision-making of CBP Officers. So far in this year alone, inspection referrals from these models to CBP Officers have led to 240 seizures, which include thousands of kilograms of cocaine, heroin, methamphetamine, and fentanyl. This effort goes beyond our POEs as well. For example, the U.S. Border Patrol (USBP) has deployed over

200 mobile Autonomous Surveillance Towers (AST) across our Southwest Border. These towers use computer vision models to identify potential threats and present them to USBP agents who then determine what actions may be required next. Additionally, ASTs allow more USBP agents to be out in the field finding and stopping threats, such as smugglers and traffickers based on this data.

AI will continue to transform our border security mission in the years to come. CBP continues to roll out Non-Intrusive Inspection (NII) technology at POEs across our borders. If CBP personnel were required to review every scan of cargo and conveyances before admission, it would either dramatically slow down the flow of trade and deal a major blow to our economy or require a massive increase in officer hiring and spending. Instead, AI models for anomaly detection will provide a comprehensive first-line review to facilitate the flow of traffic and commerce, enabling our personnel to focus their time on riskier shipments. AI will also support identifying and targeting criminal networks overseas, support the integrity of our supply chains and identify goods produced with forced labor, and further automate border processing to free up officer and agent time for enforcement activities.

DHS is using AI to aide our law enforcement officers in investigating heinous crimes.

Last month, Homeland Security Investigations (HSI) announced the completion of one of the most successful operations ever against child sexual abuse online. Operation Renewed Hope resulted in the identification of 311 previously unknown victims of sexual exploitation. This operation also resulted in the rescue of several victims from active abuse and the arrests of suspected perpetrators. Operation Renewed Hope relied on the expertise and dedication of HSI Agents and partners domestically and abroad. But, our agents had an extra tool at their disposal: AI and ML were used to enhance older images and give investigators new leads. Through this responsible use of AI, we were able to turn formerly cold cases into rescues and arrests.

Our investigative agencies use a variety of AI and ML tools to support investigative work in this and other critical areas every day. Systems like the Repository for Analytics in a Virtualized Environment, built out of the HSI Innovation Lab, use AI to analyze massive amounts of data resulting from court ordered mobile device extractions and other sources, and identify trends and isolate criminal patterns to support U.S. Immigration and Customs Enforcement missions to investigate and enforce violations of U.S. criminal, civil, and administrative laws.

AI will continue to support our agents in investigating crimes and bringing perpetrators to justice as technology evolves. Large Language Models (LLMs) have the potential to extract new insights from investigative report narratives to develop new leads, and to help our analysts and intergovernmental partners better understand and act on growing volumes of intelligence reports. AI tools will significantly decrease the time that agents and officers spend on manual data entry and analysis, allowing them to focus on other investigative activities and make better informed, data-driven decisions.

DHS is using AI to make travel easier and safer .

The Department's uses of AI are not just behind the scenes powering our operations – every American can see the benefits as they make their way to their next flight, if they elect to do so. I saw this for myself during a recent trip to Detroit, where the Transportation Security Administration (TSA) and Delta Air Lines have started rolling out Touchless PreCheck®. This new program, which has since expanded to Hartsfield-Jackson Atlanta International Airport, offers travelers an optional way to navigate the airport from curb to gate without ever needing to take out their wallets. After opting in on the Delta app, I was able to check my bag, go through the TSA checkpoint, and board my flight all with just a photograph. My boarding pass and ID stayed in my pocket the entire time.

Behind the scenes, this system creates a secure biometric template of a passenger's live facial image taken at the checkpoint and matches it against a gallery of templates of pre-staged photographs that the passenger previously provided to the government (such as a U.S. Passport or Visa). The matching algorithm is thoroughly tested to ensure that it is effective and not biased on any demographic factor. This is an optional process for passengers, who may opt out at any time and instead choose the standard identity verification by a Transportation Security Officer. TSA is also partnering with mobile companies to support mobile driver's licenses and identification (ID) cards in seven states (Arizona, California, Colorado, Georgia, Iowa, Maryland, and Utah) and counting. In these states, travelers can choose to tap their phone at the checkpoint to securely transmit their digital ID. Their photo is then taken by the TSA reader and matched against the photograph on the ID using ML-driven algorithms to confirm identity and proceed to screening.

These efforts are already saving time in security checkpoints, reducing physical touchpoints, and increasing security by verifying identity more effectively than the human eye. TSA is also working to evaluate automatic threat detection algorithms incorporating ML to make baggage scanners more effective. Taken together, these innovative uses of AI should result in airport checkpoints moving more efficiently and securely. In turn, TSA will be able to redeploy officers to keep more screening lanes open at once, further reducing wait times. Those officers will spend less time on routine tasks and more time looking out for threats and keeping us safe.

DHS will use AI to transform all parts of our operation.

While the examples above focus on border security, investigations, and travel, every DHS Agency and Office is working to responsibly integrate AI, harnessing its potential to further transform our operations. For example:

- U.S. Citizenship and Immigration Services will leverage AI to accelerate its backlog reduction efforts, providing decision support to officers to keep simpler applications moving more quickly and focusing officer time on those that present higher risks.
- The Federal Emergency Management Agency is exploring how AI can simplify its grant applications and processing, to make complex grant processes easier to navigate for community partners.

- The U.S. Coast Guard is working with the Department of Defense on maritime small object detection, employing computer vision technology to enhance maritime search and rescue operations.
- The Cybersecurity and Infrastructure Security Agency is working to leverage AI to better detect and mitigate software vulnerabilities and cybersecurity threats in defense of federal networks and critical infrastructure.
- The U.S. Secret Service is assessing uses of AI to analyze complex data sets to detect suspicious or anomalous activities.

Beyond these mission-specific applications, we see tremendous potential for AI to transform DHS employee productivity more generally as well. Under the auspices of the AITF, the Department will pilot generative AI tools to help employees better understand Department policies and procedures, research complex topics, and assist with first drafts of certain routine documents, learning to leverage this technology in a phased approach under careful scrutiny by my Office and in consultation with our oversight offices. Over time, these same tools will help continuously train our employees with realistic and changing scenarios. We are also looking at how public-facing chatbots employed by several of our Agencies and Offices can leverage LLMs to improve customer service.

DHS is ensuring that our use of AI is responsible, ethical, rights-respecting, and safe.

AI has tremendous promise, but also introduces new risks and can cause harm intentionally or unintentionally to individuals or groups. DHS is committed to ensuring that our use of AI is responsible and trustworthy; that it is rigorously tested to be effective, that it safeguards privacy, civil rights, and civil liberties while avoiding inappropriate biases, and, to the extent possible, that it is transparent and explainable to those we serve. To do this, we are partnering from day one with our Chief Privacy Officer, our Officer for Civil Rights and Civil Liberties, and other stakeholders to ensure compliance with all applicable laws and policies, issuing strong policies that add additional safeguards and put in place clear guardrails prohibiting inappropriate use, and we are moving in lockstep with the rest of the Executive Branch in full alignment with the Administration’s coordinated approach. Responsible and rights-respecting use is a team sport, and we are broadly engaging with a wide range of internal stakeholders, external experts, and civil society to take a leadership role in this domain.

DHS operates in accordance with [Executive Order 13960](#), “Promoting the Use of Trustworthy Artificial Intelligence in the Federal Government.”¹ We have published 41 different uses of AI in our AI Use Case Inventory at dhs.gov/data/AI_inventory and will grow this list as we expand our use of AI. DHS applies the principles of the Blueprint for an AI Bill of Rights as appropriate, is working to implement the National Institute of Standards and Technology’s AI Risk Management Framework within the Department and we will ensure that our internal policies and procedures are updated as new laws and government-wide policies are developed.

¹ <https://www.federalregister.gov/documents/2020/12/08/2020-27065/promoting-the-use-of-trustworthy-artificial-intelligence-in-the-federal-government>

In August 2023, Secretary Mayorkas signed DHS Policy Statement 139-06, “Acquisition and Use of Artificial Intelligence and Machine Learning Technologies by DHS Components.” This document, which was required by the Fiscal Year 2023 National Defense Authorization Act, is our Department’s foundational policy on responsible AI use and lays out key principles to create an appropriate oversight framework, in addition to the existing privacy, civil rights, civil liberties, and oversight framework. We are following this up with more specific policies on additional technologies. In the near future, we will issue a comprehensive policy on requirements for testing and use of face recognition and face capture technology along with initial guidance and training for employees to use commercial generative AI products on open-source information to support their work.

Conclusion

AI is already delivering significant value across DHS, and it will only become more significant to every part of our operations in the years to come. Our approach to harnessing and governing AI is grounded in partnerships, across our Agencies and Offices and with private industry, intergovernmental and critical infrastructure collaborators, civil society, and the Congress, along with other oversight bodies. Ultimately, we seek to govern AI as an extension of how we are evolving our information technology (IT) management and governance with our partners, including the Department’s Chief Privacy Officer and Officer for Civil Rights and Civil Liberties, as the portion of our IT systems that use AI will only continue to grow.

As the Chief Information Officer for DHS, I understand that this technological transformation requires growth and adaption within my role and the DHS IT community, as I apply authorities often authored or shaped from this Subcommittee and full Committee, such as the Clinger-Cohen Act, the Federal Information Technology Acquisition Reform Act, and the Federal Information Security Modernization Act. DHS looks to become a leader in the interagency as we confront this opportunity, but that will only be possible with continued support and leadership from Congress, especially this Subcommittee.

Thank you for the opportunity to testify before you today. I look forward to answering your questions and your continued partnership.