Freedom of Information Request - FA 24/05/01409

The Department of Home Affairs (the Department) and the Australian Border Force (ABF) currently use Artificial Intelligence (AI) for advanced analytics and to increase productivity across a number of diverse missions, operational domains, and mandated functions. AI systems currently in production provide support to departmental employees and officers to help them perform their roles and deliver outcomes for all Australians with greater efficacy and efficiency, designed to amplify and augment the deep expertise and experience of our officers and staff.

No employees have been or are planned to be replaced by AI.

The Department defines **advanced analytics** as Machine-Learning based predictive, descriptive or other advanced analysis use cases. The Department and ABF currently use advanced analytics in for a range of functions, including in supplementing efforts to: predict risk in visa programs; disrupt the flow of illicit goods in international mail and cargo domain; identify fraudulent documents using computer vision techniques; extract entity information from unstructured text using Natural Language Processing; and disrupt border threats.

The Department defines **productivity AI** as simple process automation and office productivity tools. The Department is currently using Robotic Process Automation, which are sometimes complemented with some machine learning such as natural language processing, for streamlining simple internal processes. The Department is currently also trialling some Generative AI tools across a small range of functions, such as Microsoft Co-Pilot for summarising minutes to meetings. The Department also uses a rules based Chatbot to assist with internal service desk enquiries.

The Department is **exploring** the appropriateness and viability of incorporating AI elements into additional Departmental functions for potential future usage, where we are confident that the potential risks of using AI can be mitigated.

Additionally, the ABF's Customs and Border Modernisation Program is not using AI tools in pilot form at this stage. However, the ABF received funding through 2022-23 MYEFO to investigate and develop prototypes to leverage AI and machine learning to inform ABF officer decision-making on border threats during cargo inspection in the future. We anticipate that ABF officers could use a future automated threat detection capability to assess more cargo, increase the accuracy of targeting and reduce clearance times for legitimate cargo. The scope of these prototypes is to explore the potential for rapid officer decision making and the detection of targeted items, and will inform future plans for the implementation of this technology if it is found suitable. This work is still in a formative phase.

The Department does not use machine learning to make administrative decisions. Some rules-based systems are used for automated decision making, which ensure administrative decisions are explainable, consistent, and traceable. For example, Smartgates automatically open based on clear policy based rules.

The Department ensures different forms of AI are appropriately used according to their functions, suitability, and risk profile. Generative AI tools are not available broadly to staff, unless there is a formal application, risk assessment and Generative AI training is undertaken.

The Department continues to contribute to whole-of-government efforts to uplift and uphold AI standards, controls, and architectural approaches, to complement policy, governance and assurance frameworks.

Artificial Intelligence tools and capabilities being trialled by the Department of Home Affairs			
Type of AI	**AI Usage Category**	**Use/Outcome**	**Does the AI system produce a final decision?**
K Nearest Neighbour modelling	Advanced analytics	Identifying similar consignments to those where illicit goods have been detected	No
Large Language Models (internally developed)	Productivity	Keyword and image search across large volumes of documentation to generate intelligence and investigative leads.	No
Robotic Process Automation (RPA)	Productivity	Trialling RPA to: - disseminate information to relevant internal parties - transfer data between departmental systems	No
Large Language Model (Microsoft CoPilot)	Productivity	Support staff productivity and reduce administrative burden through tasks such as meeting transcriptions and summaries and preparing draft correspondence.	No
Computer Vision	Advanced analytics	Identifying indicators of fraud in documentation supplied to support visa applications	No
Computer Vision	Advanced analytics	Automatically capturing and processing label data off incoming international mail packages.	No
Topic modelling	Productivity	Identifying key themes related to staff and customer experience	No

Artificial Intelligence tools and capabilities being considered for future use by the Department of Home Affairs			
Type of AI	**AI Usage Category**	**Use/Outcome**	**Does the AI system produce a final decision?**
Large Language Models	Productivity	Easy, fast searching of departmental systems and documents to support administrative, strategic and operational outcomes	No
Generative AI	Advanced analytics	Creating synthetic data sets for algorithm and ML training to reduce bias and ensure fair and balanced outcomes	No
Machine Learning / Computer Vision	Advanced analytics	Near real-time identification of concealed illicit goods in x-ray scanning	No
Large Language Model (Microsoft CoPilot)	Productivity	Support staff productivity and reduce administrative burden through tasks such as meeting transcriptions and summaries and preparing draft correspondence.	No
Digital Policy Twins & Automatic Impact Analysis	Advanced analytics	To test the implication of changes to policy and operations in a simulated environment, and to monitor data for intended and unintended impacts over time.	No

Notes:

1. Source: Department of Home Affairs (internal documents)

Caveats:

- *This information is provided for the specific purpose of this request.*

- *It is the responsibility of the area providing the Department of Home Affairs information to external stakeholders to ensure that the disclosure is in accordance with the ABF Act, Australian Privacy Principles or other relevant legislation.*