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| 1. Use Case Name | Drug Signature Program Algorithms | Complaint lead value probability | Privileged Material Identification | Savan Group Intelligent Records Consolidation Tool | Research Abstract Screening for CrimeSolutions | PLX |
| 2. Agency | DOJ | DOJ | DOJ | Department of Justice | DOJ | DOJ |
| 3. Component | DEA | FBI | TAX | JMD | OJP | ATF |
| 5. Summary of Use Case | DEA's Special Testing and Research Laboratory utilizes AI/ML techniques and has developed a robust statistical methodology including multi-variate statistical analysis tools to automatically classify the geographical region of origin of samples selected for DEA's Heroin and Cocaine signature programs. The system provides for detection of anomalies and low confidence results. | The Threat Intake Processing System (TIPS) uses artificial intelligence (AI) to calculate scores for calls and electronic tips based on call synopses and electronic tip text. The score predicts the probability that a tip has lead value (e.g., referrals to partner agencies, drafting of a Guardian, or if it contains a Threat to Life [TTL]). The scores are also used to screen social media posts directed to the FBI. Due to the significant volume of social media posts, only posts that score above a designated threshold are forwarded to the system for review. | The application scans documents and looks for attorney/client privileged information. It does this based on keyword input by the system operator | ORMP uses an AI and Natural Language Processing (NLP) tool to assess the similarity of records schedules across all Department records schedules. The tool provides clusters of similar items to significantly reduce the time that the Records Manager spends manually reviewing schedules for possible consolidation. An AI powered dashboard provides recommendations for schedule consolidation and review, while also providing the Records Manager with the ability to review by cluster or by individual record. The solution's technical approach has applicability with other domains that require text similarity analysis. | Use natural language processing, machine learning, and artificial intelligence processes developed by a contractor to aid in screening abstracts of newly identified evaluation research for consideration in future program ratings. | PLX allows ATF to view and analyze all communication records lawfully collected during an investigation in a single platform. PLX allows ATF users to deconflict data across the agency and look at case commonalities. |
| 7. Stage of System Development Life Cycle | Operation and Maintenance | Operation and Maintenance | Operation and Maintenance | Operation and Maintenance | Operation and Maintenance | Operation and Maintenance |
| 8. Date Initiated | 10/1/2013 | | 1/1/2021 | 6/1/2020 | 1/1/2021 | |
| 9. Date when Development and/or Acquisition began (if applicable) | 10/1/2013 | | 1/1/2019 | 8/1/2020 | 5/1/2021 | |
| 10. Date Implemented (if applicable) | 10/1/2014 | 9/5/2019 | 1/1/2021 | 9/16/2020 | 9/1/2022 | |
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| 14. Developer Information | In-house | Contracted: Contract personnel played role in design & development | Commercial-off-the-shelf | Contracted | Contracted | Commercial-off-the-shelf |
| 15. Consistent with EO 13960? | Yes | Yes | Yes | Yes | Yes | Yes |
| 16. (Optional) Explanation for Inconsistencies with EO 13960 | N/A | N/A | N/A | N/A | N/A | N/A |
| 17. What specific AI techniques were used? | Machine learning using authentic drug samples/data and validation rules. | Natural Language Processing (NLP) models | Text IQ uses techniques to sufficiently be considered AI. Text IQ uses unsupervised machine learning algorithms to analyze unstructured data. The AI extracts a social linguistic hypergraph from a data set which structures otherwise unstructured text. The machine predicts privilege documents by utilizing deep learning architectures to establish context and understanding relationships using social network features in that data set. | 1. Topic Modeling 2. Word Embedding 3. Optimal Transport 4. Clustering | Support Vector Classification | Image recognition, entity resolution, entity disambiguation, data deconfliction, pattern analysis |
| 18. (Optional) Where did/does the training data originate? | Agency Generated | Historical data generated by reviewers of complaints in the Threat Intake Processing System | Vendor | The solution makes use of glove-wiki-gigaword-50 pre-trained model, which is publicly available. | The screening results from prior manual (non-AI) literature searches for research abstracts. | Vendor, User feedback |
| 20. (Optional) Does the agency have access to the code associated with the AI use case? | Yes, only Special Testing Lab at DEA | Yes | No | No | Yes | No |
| 21. (Optional) If the source code is publicly available, provide link. | N/A | N/A | N/A | The LDA portion of the code and glove-wiki-gigaword-50 pre-trained model is publicly available. LDA: https://scikit-learn.org/0.16/modules/generate_d/sklearn.Ida.LDA.htm Pre-trained Model: https://radimrehurek.com/gensim/auto_examples/howtos/run_download_api.html | N/A | N/A |
| 22. (Optional) Is the agency able to conduct ongoing testing on the code? | Yes | Yes | No | No | Yes | |
| 23. (Optional) Is the agency able to monitor and/or audit performance? | Yes | Yes | Yes | No | Yes | |

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| 1. Use Case Name | Vound Intella | X-Ways Forensics | ShotSpotter (City) | CopLink X | Voice Transcription to Text | Detection and recognition of objects and content within multimedia data |
| 2. Agency | DOJ | DOJ | DOJ | DOJ | DOJ | DOJ |
| 3. Component | ATF | ATF | ATF | ATF | OIG | FBI |
| 5. Summary of Use Case | Vound Intella: Software used to ingest, process, parse and present data lawfully acquired from suspect devices, to include large mail box containers. Added AI-based image categorization and object detection. | X-Ways Forensics: Software used to ingest, process, parse and present data lawfully acquired from suspect computer and other storage type devices, including image analysis and object recognition. | Multiple ATF divisions access city-managed ShotSpotter systems for identification and location of suspected gunfire. | Started as a joint project of the Tucson Police Department (Arizona) and the University of Arizona's Artificial Intelligence Laboratory, CopLink X links databases across jurisdictions and searches these databases for associations between people, places, combining natural language search with structured field level and federated search. Coplink contains data from around 2,000 local and state law enforcement agencies, most of which are local police departments and Sheriff's offices. It contains around 1 billion searchable documents consisting of over 40 document types, including arrest records, prison visitation logs, field interviews, traffic citations, license plate reader hits, sex offender registry records, mugshots, and tattoo images. | Build a system which inputs a voice recordings and outputs a text file of the recording. | Computer vision algorithms trained using AI techniques are used to classify and identify content in lawfully acquired images and videos to enable a user to quickly find "content" of interest in multimedia data. All results are reviewed by a human and no action is taken automatically based on the sole result of the algorithms. |
| 7. Stage of System Development Life Cycle | Operation and Maintenance | Operation and Maintenance | Operation and Maintenance | Operation and Maintenance | Development and Acquisition | Implementation |
| 8. Date Initiated | | | | | 3/1/2023 | |
| 9. Date when Development and/or Acquisition began (if applicable) | | | | | 4/1/2023 | 6/1/2014 |
| 10. Date Implemented (if applicable) | | | | | | |
| 11. Contact Name | Monique Bourque | Monique Bourque | Monique Bourque | Monique Bourque | Monique Bourque | Monique Bourque |
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| 14. Developer Information | Commercial-off-the-shelf | Commercial-off-the-shelf | Commercial-off-the-shelf | Commercial-off-the-shelf | Contracted | Contracted: Contract personnel played role in design & development |
| 15. Consistent with EO 13960? | Yes | Yes | Yes | Yes | Yes | Yes |
| 16. (Optional) Explanation for inconsistencies with EO 13960 | N/A | N/A | N/A | N/A | N/A | N/A |
| 17. What specific AI techniques were used? | Image categorization, object detection | Image analysis, object recognition | Audio pattern analysis | Natural language processing, data deconfliction, entity disambiguation | Cognitive Services | Deep Learning and Natural Language Processing |
| 18. (Optional) Where did/does the training data originate? | Vendor, User feedback | Vendor, User feedback | Vendor | Vendor | | The majority of algorithms used are open source and use open source datasets for training. Internal training is done through contracts |
| 20. (Optional) Does the agency have access to the code associated with the AI use case? | No | No | No | No | No | Yes |
| 21. (Optional) If the source code is publicly available, provide link. | N/A | N/A | N/A | N/A | N/A | https://openmpf.github.io/ |
| 22. (Optional) Is the agency able to conduct ongoing testing on the code? | | | | | Yes | Yes |
| 23. (Optional) Is the agency able to monitor and/or audit performance? | | | | | | Yes |

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| 1. Use Case Name | Lit | Amazon Rekognition - AWS - Project Tyr | Machine Translation Service - Hola iBot |
| 2. Agency | DOJ | DOJ | DOJ |
| 3. Component | FBI | FBI | FBI |
| 5. Summary of Use Case | <p>DI/Language Services Section funds the commercial software "Lit" which is a computer-assisted translation (CAT) software for use by FBI linguists for translating documents. Lit offers adaptive and interactive neural machine translation (NMT) output through a browser-based UI to increase translators' productivity.</p> | <p>Amazon Rekognition offers pre-trained and customizable computer vision (CV) capabilities to extract information and insights from lawfully acquired images and videos. Currently in initiation phase to customize to review and identify items containing nudity, weapons, explosives, and other identifying information.</p> | <p>One time usage on the ANOM dataset for AWS Translate. All translated items were marked as translated. Linguists then have been going through the data to confirm accuracy.</p> |
| 7. Stage of System Development Life Cycle | Implementation | Initiation | Operation and Maintenance |
| 8. Date Initiated | | | |
| 9. Date when Development and/or Acquisition began (if applicable) | | | |
| 10. Date Implemented (if applicable) | | | |
| 11. Contact Name | Monique Bourque | Monique Bourque | Monique Bourque |
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| 14. Developer Information | Commercial-off-the-shelf: system was purchased pre-built from a third-party | Commercial-off-the-shelf: system was purchased pre-built from a third-party | Commercial-off-the-shelf: system was purchased pre-built from a third-party |
| 15. Consistent with EO 13960? | Yes | Yes | Yes |
| 16. (Optional) Explanation for inconsistencies with EO 13960 | N/A | N/A | N/A |
| 17. What specific AI techniques were used? | Transformer-based, neural machine translation | To be determined, in collaboration with AWS. | To be determined, in collaboration with AWS. |
| 18. (Optional) Where did/does the training data originate? | Company-proprietary, open web scrapes | To be determined, in collaboration with AWS. | To be determined, in collaboration with AWS. |
| 20. (Optional) Does the agency have access to the code associated with the AI use case? | No | No | No |
| 21. (Optional) If the source code is publicly available, provide link. | N/A | To be determined, in collaboration with AWS. | To be determined, in collaboration with AWS. |
| 22. (Optional) Is the agency able to conduct ongoing testing on the code? | No | No | Yes |
| 23. (Optional) Is the agency able to monitor and/or audit performance? | Yes | Yes | Yes |