USGIF
Machine Learning & Artificial Intelligence
Working Group
25 September 2018
Agenda

1200: Welcome, Introductions, Agenda Review.
1210: Review highlights of last MLAIWG meeting.
1215: MLAIWG Co-chair Transition. (Co-chairs)
1235: Draft ML-AI Lexicon. (Peter Morosoff, E-MAPS)
1305: Update on Planning for ML-AI Workshop, November 2018. (Co-chairs and workshop planning team members)
1330: Updates from Sub-WGs.
1340: Wrap-up and next steps.
1345: Networking.
26 June 2018 MLAIWG Highlights

1. The meeting convened at noon in USGIF offices in Herndon, VA.

2. Discussed ML-AI lexicon project and next steps.

3. Reviewed initial plan for November 2018 ML-AI workshop.

4. Held a lively discussion regarding how to bring ML and AI to GEOINT tradecraft.

5. Sub-working group updates.
Peter Morosoff, E-MAPS

ML & AI Lexicon
Venue: NGA conference center in Springfield, VA.

Agenda: 1.5-day event, the first day being unclassified and the second day (half-day) being held at the TS/SCI level.

Proposed topics and themes of interest:
- Simulating training data (to enable training artificial neural networks).
- Preparing data for use in training ML and AI systems.
- How to train and prepare the workforce to work with ML and AI systems.

Topics specifically for the classified session might include:
- Real world experience applying ML and AI: successes and lessons.
- Data sets available on the high side.
- Challenges we face in deploying ML and AI.
ML-AI Workshop 13 Nov
Unclassified Session

0730-0845 – Registration Check-in at NCE Allder Auditorium

0845-0850 – Welcome: Keith J. Masback, CEO, USGIF

0850-0900 – Master of Ceremonies: TBD MLAIWG Tri-chair

   Back-up: Lt Gen Dash Jamieson, Deputy Chief of Staff, Intelligence, Surveillance and Reconnaissance, Headquarters U.S. Air Force.

0930-1030 – Panel: Preparing data for use in training ML and AI systems
   • Moderator: Alyssa Simpson Rochwerger, VP Product, Figure 8 (confirmed informally)
   • Panel member: Kate Werling, Amazon Web Services (confirmed informally)
   • Panel members TBD

1030-1100 – Morning Networking Break & Exhibit Time

1100-1200 – Panel: Simulating training data (to enable training artificial neural networks)
   • Moderator: Shane Shaneman, Director, Strategic Government Research & Engagements, Carnegie Mellon University. (confirmed informally)
   • Panel members TBD.
ML-AI Workshop 13 Nov
Unclassified Session

1200-1345 – Lunch Break, Exhibits, Flash Talks.

1230-1330 – Unclassified Innovation Industry Flash Talks

1345-1350 – Master of Ceremonies: TBD MLAIWG Tri-chair

1350-1420 – Keynote: Dr. Steven Hall, NGA Mission Leader for Automation, Augmentation, and AI. (confirmed informally)

1420-1520 – Panel: Preparing the workforce to work with ML and AI systems.
  • Moderator: tbd
  • Panel member: Ian Eishen, Superintendent, 548th ISR Group (Invitation pending)
  • Panel member: Steve Woolwine, Chief, Integration and Assessment Division INSCOM G-7 (confirmed informally)
  • Panel member: Camelia Kantor, Director, Academic Programs, USGIF
  • Panel member: Andrea Root, Director, Office of Analytic Tradecraft, NGA

Note: panel member invitations pending panel moderator identification.

1520-1550 – Closing Keynote: Benjamin Tuttle, Director of Outposts, NGA. Confirmed

1550-1600 – Master of Ceremonies Closing Remarks

1600-1700 – Exhibits (NCE Atrium) and/or GEOInteraction (Embassy Suites, Springfield)
ML-AI Workshop 14 Nov
Classified Session

1200-1230 – Registration and check in at...
1230-1245 – Master of ceremonies (Holly Russo)
1245-1345 – Real World Experiences. Discussion of AAA Sprint (Automation, Artificial Intelligence, and Augmentation) programs launched. What has been successful? What hasn’t? What have you learnt?
  • Moderator: Tara Bradburn, NGA AAA Lead (confirmed informally)
  • Members TBD.
1345-1420 – Dawn Meyerriecks, Deputy Director, Science and Technology, CIA
1420-1440 Break
1440-1500 – Machine Learning Datasets available on the high-side, Dave Lindenbaum, InQTel (confirmed informally) with Todd Bacastow, Radiant Solutions OR an Amazon Web Services representative.
ML-AI Workshop 14 Nov
Classified Session

1500-1550 – Let’s talk about the challenges we face deploying AI/ML as an Enterprise?

- Moderator: Lou Halbert, NGA, Chief Data Officer
- Members TBD.

Discussion points:

**Gap:** What AI/ML tools does your organization need, and on what network (NIPR, SIPR, JWICS)?

**Roadblock:** What do you feel is the reason you don’t have the tools you need?

**Success:** If you have the tools you need, how were you able to get them (acquisition and/or information assurance strategies)? What have we learnt? What were we trying to figure out – what was the problem?

**Gap:** What type of AI/ML practitioners do you need (civilian, military, contractor)?

**Roadblock:** What do you feel is the reason you don’t have the practitioners you need (high cost, low supply, lack of specific GEOINT skill)?

**Success:** If you are able to get the practitioners you need, how were you able to get them (temporary vs. permanent, contract vehicles, training programs)?

1550-1600 – Master of Ceremonies Closing Remarks

1200-1600 – Comment board available in the room for attendees to post their own responses to the questions above.
3. Identify the implications of ML and AI adoption for future GEOINT professionals education / training to help benefit the community.
- Doug McGovern, IBM; Scott Jachimski, BAH; Peter Hanson, CTC.

4. Survey of ML and AI use in the GEOINT field today (AKA “State of ML and AI in GEOINT”), focusing on data sets and data sources.
- Todd Bacastow, Radiant, Ian Eishen, USAF; Zslot Kira, GTRI.

5. Verification and validation of machine learning and AI tools and algorithms.
- Kirstie Bellman & Chris Landauer, Aerospace Corp.; Tim Barr, Cray; Mark Skoog, NASA.

6. Developing a lexicon for machine learning and AI.
- Ted Josue, Riverside Research; Cecelia Smith, Orbital Insight; Mark Knapp, Eastview; Chris Landauer, Aerospace Corp. ; Peter Morosoff, E-mapsys; Mike Rampino, PSS Federal.
Wrap-up & Next Steps

- Review action items from this meeting.
- Around the room / phone for final comments.
- Networking immediately follows meeting.
- Upcoming MLAIWG events:
  - MLAIWG monthly meeting, 23 October, noon.
  - ML-AI Workshop, 13 – 14 November.
  - MLAIWG monthly meeting, 27 November, noon.
  - No December monthly meeting – resume Jan 2019.
MLAIWG Sub-WGs

- **Topic #3.** Identify the implications of ML and AI adoption for future GEOINT professionals education / training to help benefit the community. Doug McGovern, IBM; Scott Jachimski, BAH; Peter Hanson, CTC. Contact Pete at hansonp@ctc.com or Scott at jachimski_scott@bah.com

- **Topic #4.** Survey of ML and AI use in the GEOINT field today (AKA “State of ML and AI in GEOINT”), focusing on data sets and data sources. Todd Bacastow, Radiant, Ian Eishen, USAF; Zslot Kira, GTRI. Contact Todd at Todd.Bacastow@digitalglobe.com

- **Topic #5.** Verification and validation of machine learning and AI tools and algorithms. Kirstie Bellman & Chris Landauer, Aerospace Corp.; Tim Barr, Cray; Mark Skoog, NASA. Contact Kirstie at kirstie.l.bellman@aero.org

- **Topic #6.** Developing a lexicon for machine learning and AI. Ted Josue, Riverside Research; Cecelia Smith, Orbital Insight; Mark Knapp, Eastview; Chris Landauer, Aerospace Corp.; Peter Morosoff, E-mapsys; Mike Rampino, PSS Federal. Contact Peter at peter.morosoff@e-mapsys.com