JOINT SOFTWARE AND IT COST FORUM 2020 KEYNOTE

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The IC's mission -

"Seeing over the horizon in enough time to impact the outcome"

-Sue Gordon, Former Principal Deputy Director of National Intelligence

AI AND MACHINE LEARNING FOR NATIONAL SECURITY

- Create actionable insights at machine speed for decision advantage

- The investment gap
  - Private Sector: $26B to $39B AI investment in 2016 (McKinsey)
  - China: Goal to be world leader in AI by 2030 w/$150B AI industry; recently set up $5B AI fund; publishes more AI papers than any other country
  - Russia: Leveraging AI for both political and military purposes – Putin "The country the wins the AI race, wins the world"

- The collection capability and analysis gap
  - D/NGA: By 2022, 1 Million times more GEOINT data – NTM evolution, commercial space, video. By 2037, will need 8 million analysts to keep up with projected GEOINT data
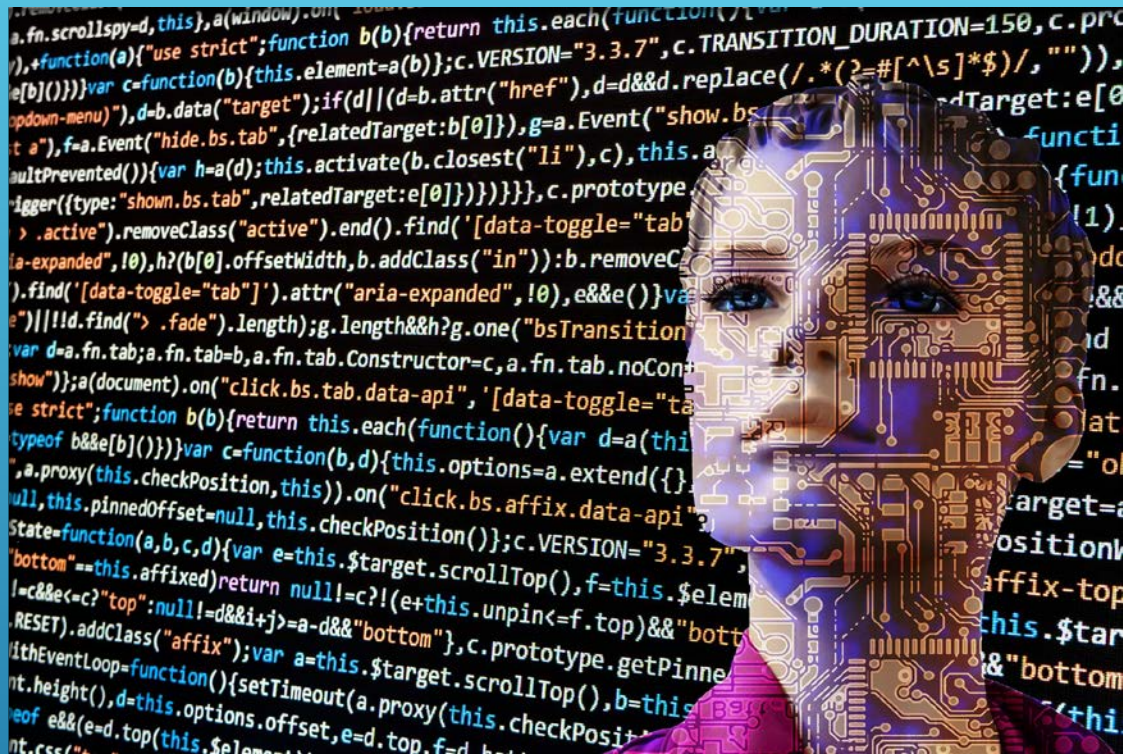 - SIGINT: By 2021, global IP traffic 3.3ZB/yr (up from 1.2ZB/yr in 2016); 3.5 networked devices per global capita

AIM – MISSION IMPERATIVE

- **Expected outcome:**
  - To Counter the increasingly complex threat environment the IC must do more than collect data.
  - AI has demonstrated superhuman techniques to augment the ability of collectors, analysts and producers of intelligence to interpret data and identify relevant patterns.
  - The IC must reduce the gap between the vast amount of data in the world and our ability to optimize our limited human capital to exploit it.

- **Vision:** To secure and maintain strategic competitive information advantage for the US Intelligence Community for the next decade through focused development and rapid adoption of AAA technologies

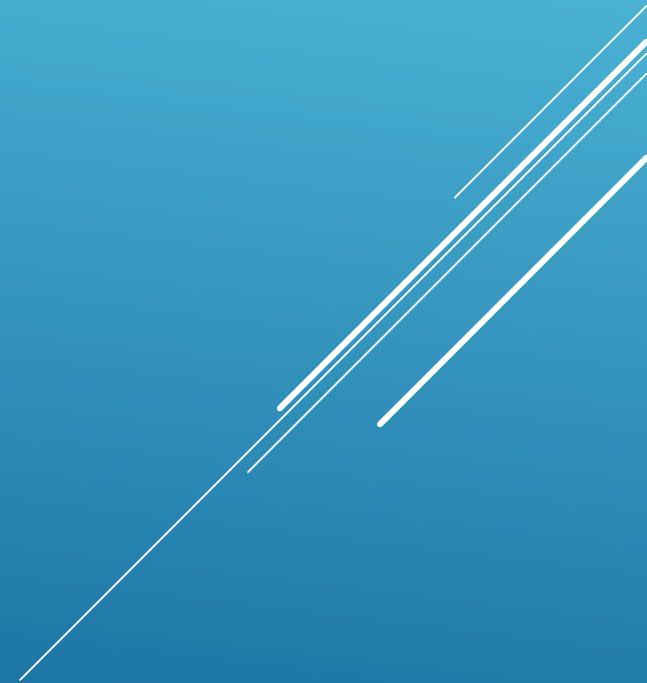# AIM – AUGMENTING INTELLIGENCE USING MACHINES

- Authorities
- Adversarial Risk
- Training Data
- Tunability
- Interoperability
- Resiliency
- Documentation

CHALLENGES AND CONSIDERATIONS

LOOKING AHEAD TO 2035

QUESTIONS?