NATIONAL SECURITY REQUIRES GREATER DATA LITERACY

Our world increasingly relies on data and computing to make critical decisions, better predict the future, and keep the nation safe. Understanding data science and statistics enables security experts to analyze trends and unusual activities, aiding in the early detection and prevention of potential dangers. Data literacy is critical to fostering a new generation of data scientists who will help protect national security in a number of ways, including the following:

THREAT DETECTION AND PREVENTION

Data literacy and expertise allow national and cyber security professionals to discern patterns and anomalies within intelligence reports, social media, and other sources. This skill is crucial for identifying potential threats, whether they come from cyberattacks, terrorism, or other security risks. Understanding data science and statistics enables security experts to analyze trends and unusual activities, aiding in the early detection and prevention of potential dangers.

INTELLIGENCE ANALYSIS

Data literacy is fundamental for intelligence agencies dealing with a surfeit of information from various sources. Data science and statistics help analysts distinguish reliable information from noise, fostering more precise conclusions. Analysts, equipped with data literacy skills, can scrutinize complex data sets, decipher patterns, and extract actionable intelligence, thereby aiding preemptive measures against potential terrorist attacks.

BORDER SECURITY

Data literacy bolsters border security by facilitating the analysis of extensive data related to travel, immigration, and customs, such as passenger manifests and biometric information. Mastery in data analysis aids in identifying potential security risks, discerning patterns of illicit activities, and augmenting border control strategies, thus ensuring effective border management and preventing illegal activities.

ADEQUATE NATIONAL SECURITY WORKFORCE

Data is the fuel for the fast-evolving cyber landscape, and the above examples are only a preview of the increasingly sophisticated challenges on the horizon. It is imperative that we adequately fill national security jobs with US citizens who know how emerging technologies work and can master the next ones—before our rivals do.

Greater data literacy among all students and more data-savvy graduates to meet workforce demand will better position the US to meet challenges, whether they relate to artificial intelligence, national security, health, the economy, education, or manufacturing. Please click on the linked topics above to see our related one-pagers about the importance of greater data literacy in those areas.