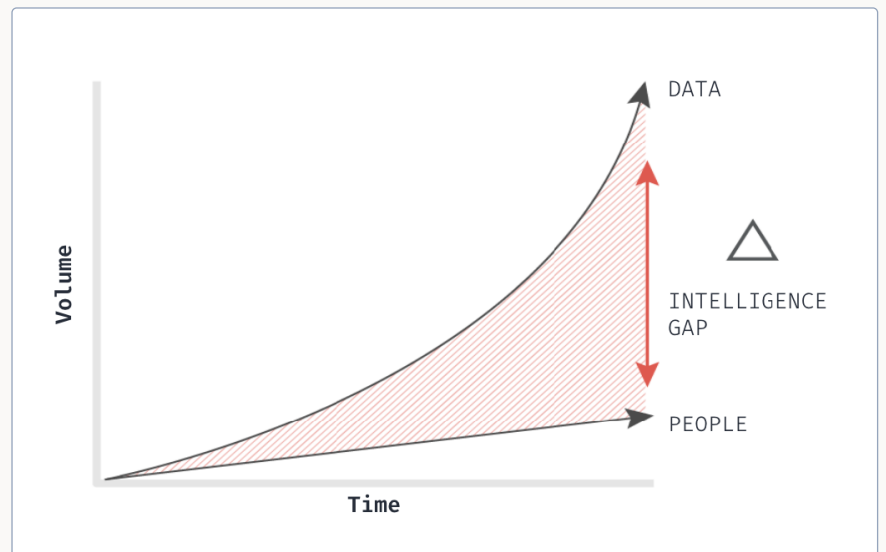Primer

How Emerging AI Technologies Can Help Us Think 'Smarter'

EVERY MORNING, ANALYSTS, OPERATORS, AND POLICYMAKERS ARRIVE AT THEIR DESKS TO READ THE LATEST NEWS AND INTELLIGENCE REPORTING THAT HAS COME IN DURING THE PAST DAY.

The daily rhythm of "reading the morning traffic" has remained largely unchanged since the 1950s. Professionals in the intelligence community and military spend upwards of a third of their days poring over incoming cables to stitch together a coherent picture of worldwide events. Policymakers and senior military commanders increasingly struggle to consume the enormous volume of daily reporting and rely on analysts and operators to deliver tailored intelligence briefings to help them keep up.

Primer Analyze Transforms National Security Monitoring

Natural Language Processing (NLP), has reached a level of maturity that it is now finding far ranging applications across the national security community. NLP broadly refers to the set of technologies that enable computers to not only understand, but also generate language in human-readable format. Primer's machine learning algorithms are capable of a range of functions, including: drafting newspaper articles, summarizing large bodies of text data, and identifying a wide range of entities, including people, places, events, and organizations.

Primer's NLP can understand the relationship among these entities, rapidly extracting and collating key information from thousands of documents such as the number of casualties from a bombing, the political affiliation of an organization, or the type of illness afflicting a political leader. These capabilities are changing the paradigm for how national security professionals not only manage daily traffic, but also information flows in times of crisis.

NLP To Accelerate Work Of Operators In The Field

NLP is poised to deliver enormous time savings for media exploitation efforts by the special forces and intelligence communities. Over the past two decades, these organizations have perfected the exploitation phase of the targeting cycle, but few technologies have emerged that accelerate the analysis and dissemination phases. This challenge is becoming more urgent as the amount of video, audio, and textual data being pulled off the battlefield skyrockets.

The emerging ability to train new NLP algorithms on the fly is beginning to make the leap from the private to public sector and is just now beginning to find uses among national security professionals. These technologies will enable these organizations to rapidly sift through staggeringly-large caches of digital media to unearth files most likely to be of intelligence value. Introduction of these technologies will upend the longstanding approach of manual review by large teams of analysts and operators by enabling this work to be pushed down to small tactical teams in the field, dramatically accelerating their targeting cycles.

Inflection Point With NLP For Intelligence Analysts

NLP technologies also will dramatically augment analysts' ability to grapple with large volumes of news and intelligence reporting. This issue is becoming more acute as intelligence community leaders race to establish new IT platforms to facilitate rapid information sharing and collaboration. While fewer stovepipes will help ensure the right intelligence makes its way to the right analyst, operator, or policymaker at the right time, the additional intelligence will exacerbate the information overload these groups already grapple with.

NLP technologies are also eroding the tradeoff analysts historically have had to make between making timely judgments and judgments based on a comprehensive analysis of available intelligence. These technologies are enabling analysts to read-in each morning in a fraction of the time, and interact with all of the reports hitting their inboxes each day, not just those flagged as highest priority or from the most prominent press outlets.

The effect of these algorithms goes beyond accelerating the speed and scale that individual analysts can operate, to also mitigating hitherto unavoidable analytic biases associated with source bias. This is lowering the cost analysts face for pursuing hunches, exploring new angles to vexing issues, and creating time for them to learn about new issues.

Primer's Core Competencies

NLP/G Algorithms

Primer's industry-leading models have been trained and tuned specifically for government reporting.
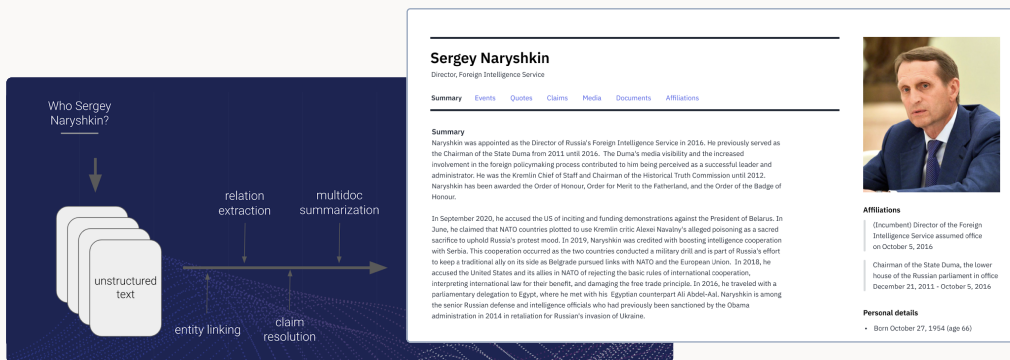
Orchestrating ML Pipelines

A proprietary pipeline for 30+ NLP/G algorithms powers Primer Analyze, which continuously ingest and process all source intelligence reporting.

Self-Generating, Self-Writing Knowledge Graphs

Vast (and growing) library of the world's most performant, and retrainable NLP/G models.
2+ years of ingesting and processing diplomatic cables.

Flexible Deployment Models

Primer's deep NLP/G expertise enabled our engineers to develop dozens of additional solutions.

Self-Updating Knowledge Bases Will Mark Historic Paradigm Shift For Analysts

Perhaps most transformative, emerging NLP technologies are showing promise in powering auto-generating and auto-updating knowledge bases (KBs). These self-generating "wikipedias" likely will have the most dramatic impact by eliminating potentially millions of worker-hours of

labor manually curating KBs such as spreadsheets, link charts, leadership profiles, and order-of-battle databases. These next-generation KBs will continuously analyze every new piece of intelligence reporting to automatically collate key facts about people, places, and organizations in easily discoverable and editable wiki-style pages. The introduction of this technology will disrupt the daily rhythm of tens of thousands of analysts and operators that spend a significant amount of time each day cataloging facts from intelligence reporting.

Contact us to learn more

Primer National Security Group | natsecgroup@primer.ai

1201 Wilson Blvd. Arlington, VA 22209