

Competing Revolutions in Military Affairs

Artificial Intelligence, Machine Learning, and Information Age Conflict

Open Source: A New Horizon for Information and Intelligence

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In 2014, U.S. military forces rushed back to Iraq to confront the sudden emergence of the Islamic State (IS). In early efforts to understand this threat and

begin effective targeting, the U.S. military and its allies had to overcome a significant intelligence deficit, since most intelligence assets were withdrawn when American forces left Iraq in 2011. However, many Iragis, Kurds, Syrians, and others began using their personal cellphones to transmit large amounts of operationally useful "open source" data and intelligence to U.S. and coalition forces. This information substantially aided early military actions against IS until more traditional capabilities could be repositioned into theater.

More broadly, the rapidly increasing operational and strategic value

of open source intelligence (OSINT) information is a trend the U.S. Government has been slow to grasp. But the growing power of unclassified information in our digital age is increasingly obvious, and its impacts are undeniable. All one needs to consider is how open source data-based companies like Amazon and Google are today able to wield the sort of power and influence that can rival much of what a sovereign state is capable of to appreciate the growing, geo-strategic importance of open source information.

Open source information is not new. For most adults today, our experience with open source involved services such as newspapers that refreshed once per day with a new edition, or libraries that required a physical visit to access a publication, or pre-cable television that delivered news in evening hours only. But, today's 24-hour availability of massive volumes of open source

information through a host of different devices has created an entirely new horizon for the power and utility of this kind of information into the future.

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Consider this provocative, but none-theless probable future reality: As these trends continue, someday the U.S. President's Daily Brief (PDB) – for decades compiled for the President's daily consumption almost exclusively from classified information and intelligence – will instead be compiled primarily from OSINT.

The reality of the growing importance of open source information exploitation, which will only continue to expand, poses several crucial questions for both U.S. Government and defense industry leaders to consider:

- As American national security activities become more and more dependent on the effective harvesting and employment of open source information, how will this trend alter traditional mission and enterprise national security capability needs?
- What will U.S. Government customers need from industry to conduct the training and education for government personnel required to effectively operate in the rapidly expanding open source information arena?
- As government becomes more dependent on open source information, what will it need from industry to ensure its own open source activities and capabilities are capable of withstanding, or rapidly recovering from, adversary cyber intrusions or attacks?