

SUBJECT: Establishing a new open-source National Science and Technology Analysis Center
FROM: Tarun Chhabra, William Hannas, Dewey Murdick, Anna Puglisi

BACKGROUND

- The United States is no longer the global science and technology (S&T) hegemon. Whereas U.S. R&D in 1960 was more than two-thirds of global R&D, today it is less than one-third.
- Worldwide S&T literature has grown 10 times from 1980 to present, augmented by exponential growth in geospatial, news, social media, and contextual data.
- Given the globalization of S&T innovation and the central role of technology in U.S. national security and prosperity, ***effective strategy and policy require timely open-source collection and analysis of worldwide S&T developments.***
- China's rapid rise in S&T has been facilitated by a staff of more than 60,000 open-source collectors and analysts monitoring and exploiting foreign S&T, which has enjoyed massive, multi-layered state support for some 65 years. Other countries have similar, if smaller, enterprises under the umbrella of a ministry of science and technology. ***The United States has no equivalent enterprise.***

KEY POINTS

- ***The Intelligence Community (IC) has not emphasized open-source intelligence (OSINT), and other potential “sponsors” (e.g., DoD, DoE) have failed to develop robust open-source capabilities.***
 - U.S. intelligence agencies prioritize their marquee, classified collection activity and have consistently marginalized OSINT for decades since the end of the Cold War.
 - However, the now-defunct open-source Foreign Broadcast Information Service is widely considered to have been a major strategic asset during the Cold War.
 - IC Title 50 authorities inhibit information-sharing with both governmental and non-governmental actors, as well as “net assessment” analysis comparing/contrasting foreign and U.S. capabilities.
 - Open-source collection and analysis is widely misunderstood in the United States as a mere “enabler” of classified intelligence, not as a source of intelligence itself, and is deprioritized for funding.
- ***S&T collection and analysis has prioritized military affairs and technical collection rather than global developments in emerging technologies or their implications for economic competitiveness.***
 - A dedicated open-source enterprise with advanced data analysis capabilities could provide key insights on emerging S&T developments, and also sharpen other USG actors’ analysis that prioritizes approaches such as expert judgment and/or classified sources and methods.
 - As adversaries target academia and private firms for tech transfer, cybertheft, and influence efforts, these actors, alongside state and local authorities, also need timely technical support.

RECOMMENDATIONS

- ***Establish a new, open-source National S&T Analysis Center (NSTAC) to:***
 - Be an independent entity like the National Science Foundation, not housed within the intelligence community or limited by Title 50 authorities, and primarily or exclusively dedicated to S&T collection, analysis, and decision support, and funded for that priority. Partner entities could support private and civil society actors, potentially through public-private partnership.
 - Carry out open-source analysis and decision support for functions including allocating R&D investment and/or divestment, promoting international collaboration and partnerships, detecting unwanted tech transfer, channeling hiring, supporting S&T forecasting, refining assessments of foreign S&T collection and intent, and supporting long-term S&T strategic planning for federal, and, as appropriate, sub-federal authorities, as well.