



# Debating Open Source

## *A Practitioner's Perspective*

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## Introduction

The US government has collected, processed, and analyzed open-source intelligence (OSINT) longer than the CIA has existed, and this venerable art has seen an explosion of attention in recent years.<sup>1</sup> Prominent voices such as former Principal Deputy Director of National Intelligence Sue Gordon and former National Geospatial-Intelligence Agency (NGA) Director Robert Cardillo have advocated publicly for more investment in technologies that enable OSINT.<sup>2 3</sup> Several member organizations of the Intelligence Community have set up efforts to gather and process open-source information, including the US Army, State Department, and NGA.<sup>4 5 6 7</sup> Most recently, the Office of the Director of National Intelligence released an OSINT strategy to establish IC-wide governance.

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These official efforts parallel public calls from think tanks, academics, and the media for more robust and sophisticated approaches to OSINT. Those calling for change in the US government's approach generally agree on three points:

- Open source is critical to intelligence work;

- Massive amounts of information are available; and
- Burgeoning technologies like artificial intelligence are required to triage and parse data.

The greater attention to OSINT in recent years comes in part from greater public awareness of the issue, as advocates for OSINT point to media reporting on China's

investment in its own open-source intelligence approach and to the utility of open-source research in exposing Russian military actions in Ukraine. Publicity of the work by independent investigative organizations like Bellingcat have popularized OSINT tradecraft and further democratized its use among a growing number of citizen journalists.<sup>8</sup>

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## Looking to OSINT's Future

Visions of OSINT's future within the IC articulated in the public sphere tend to fall into three camps:

- outsourcing open-source collection and analysis;
- increasing the resources of existing open source intelligence efforts throughout the IC; and
- creating a new agency dedicated to OSINT.

### *Outsource OSINT*

Proponents of outsourcing OSINT argue the private sector can do the job better. Taking for granted that open-source environment is constantly and rapidly evolving, this camp argues that the IC is less adaptable than private industry and less adept at recognizing trends on the horizon. As Jake Harrington, former intelligence fellow at the Center for

Strategic and International Studies (CSIS), articulated the problem: "Intelligence success in this environment requires imagination, flexibility, resilience, and risk tolerance. These are not characteristics of today's IC."<sup>9</sup> Advocates argue that private industry can offer more robust and agile resources to focus on open source technology while often controlling the infrastructure and intellectual property underlying open-source architecture.<sup>10</sup>

Some proponents of outsourcing point out that the IC is unable to devote attention to OSINT because of competing priorities baked into its organizations. For example, former CIA officer Jeffrey Stoff argues the US government is ill positioned to conduct open-source research because it would take away from other missions"

*[N]o government agency or program can overcome their structural limitations without a*

*radical transformation of their missions, priorities, and resources. That would be a difficult task and could create zero-sum game effects; other missions would need to be descoped that could have unintended or dangerous consequences.<sup>11</sup>*

He argues that because Title 50 agencies are limited in the type of data that can be collected regarding US persons, the IC is unable to legally collect large portions of commercially available information (CAI), hamstringing the IC's ability to replicate what private industry can do. He and other former CIA officers have proposed an open-source consortium model, essentially a government-funded, public-private partnership that provides OSINT research, tools, sources, and data technology for the IC.<sup>12 13</sup>

## Embrace Open Source

Advocates for this second approach argue that OSINT is too essential to the IC's mission to take outside of government and that the IC needs to evolve in its structure, culture, and workflows to integrate OSINT more fully into its tradecraft. This camp tends to focus on the IC's demonstrated capability in open-source collection; believes that the IC can evolve tradecraft, technology, and bureaucratic structures; and asserts that OSINT expertise needs to be integrated within the IC alongside the other intelligence sources (or INTs) to be effective.

Authors involved in a CSIS Technology and Intelligence Task Force in 2021—initially chaired by now DNI Avril Haines—fleshed out recommendations for this approach.<sup>14</sup> Advice from these authors include tactical solutions, such as empowering indigenous innovators to find small-scale technological solutions, and solutions at scale, such as funding an IC-wide OSINT collection and processing system fueled by artificial intelligence/machine learning (AI/ML).<sup>15 16</sup>

The CSIS authors note that existing IC culture—as in all large organizations—is resistant to adopting new technologies and the workflow changes that come with them. Brian Katz writes:

*The challenge to U.S. intelligence, however, will come not only from U.S. adversaries but from the IC itself, as organizational, bureaucratic, and technical hurdles slow technological adoption.*<sup>17</sup>

Emily Harding asserts that the likely unwillingness of all-source analysts' to adopt technology enabled by AI/ML for OSINT research is a critical barrier for change.<sup>18</sup>

Research by RAND, long a keen observer of US government functions, suggests ways to combat this cultural resistance to open source information. In addition to commonsense advice to invest in better tools and tradecraft to support the OSINT mission,<sup>19</sup> RAND researchers identified one key lever to bring about the systemic changes needed to make the IC more effective in the open-source realm: leadership messaging:

*To effect the cultural change, the IC leadership must issue multiple messages to the IC workforce, develop new tradecraft, and train a new generation of intelligence professionals on how to meet the warning challenge.*<sup>20</sup>

There is also a perceived analytic bias against open sources in all-source work. One RAND study argued that "IC organizations often treat both PAI [publicly available information] and OSINT

as another stovepipe, similar to other INTs, rather than a resource for foundational use in all analytic products."<sup>21</sup> These authors argue that addressing the cultural barriers within the IC to working with open sources and large datasets is critical to user adoption.

## Create an OSINT Agency

The argument for an independent open-source agency refutes the current IC federated approach to OSINT collection, arguing that OSINT is a complex system that needs a dedicated structure. Former CIA officers Peter Mattis and Rodney Faraon argue that the

*volume and variety of open and commercial source materials, urgency of the geopolitical rivalry, and continued development of tools to exploit the data all necessitate a systematic effort to harness open and commercial source to support decisionmaking.*<sup>22 a</sup>

Several advocates for an open-source agency argue that OSINT cannot thrive in an organization dedicated to secrets. Stanford professor Amy Zegart and former Acting CIA Director Michael Morell, in recommending an independent open source agency, assert:

*Currently, [OSINT] collection runs through the CIA's Open Source Enterprise, but this setup is akin to keeping the air force*

a. See in the issue retired CIA officer William Usher's case for a separate OSINT agency, "The Case for Creating an Open-Source Intelligence Agency," beginning on page 23.

### **What Do We Mean When We Say “Open Source”?**

While the concepts comprising “open-source intelligence” have been well defined for some time—notably publicly available information (PAI) and commercially available information (CAI)—the lack of familiarity with these terms in the general IC population prevents deep conversations. As one open-source advocate explained: “It’s almost like a bureaucratic maneuver to slow down whatever conversation we’re having. And I’ve been in tens of conversations, meetings, inside the government, inside industry, around industry. And we’re starting to make progress. We’re talking about tough issues, talking about the value of open source. And it almost never fails, someone sort of leans back in their chair, sort of stretches their decades of experience comfortably in government, and they ask, ‘Well, what does this mean? What is open source? What is PAI?’ And then we end up admiring the problem and progress halts.”<sup>26</sup> To coin a phrase, the low level of “open-source acumen” within IC agencies is dragging down the IC’s ability to move forward in properly resourcing and using OSINT.

*within the army, hobbling a new mission by putting it inside a bureaucracy that naturally favors other priorities. Secrets still reign supreme in the CIA, relegating open-source information to second-class status. Open-source intelligence will never get the focus and funding it requires as long as it sits inside the CIA or any other existing agency.*<sup>23</sup>

Similarly, former military intelligence officers Mark Quantock, David Dillow, and McDaniel Wicker recommend a new IC agency to truly professionalize OSINT as a discipline and to move away from what they call an ad hoc approach in IC and Defense Department components, arguing, “Credibility as a discipline comes with expertly trained and educated professionals.”<sup>24</sup>

NGA officer and OSINT practitioner Chris Rasmussen, who spearheaded NGA’s unclassified reporting effort known as Tearline, goes further by advocating for an independent OSINT agency outside the IC.<sup>a</sup> This separation is necessary, in his view, because the IC will always prioritize classified programs:

*The classified core is becoming increasingly irrelevant but sunken cost fallacies and cultural inertia overstate its importance internally. The only way to break free of this budget subordination and classified-first resource mentality is independence or removing protecting secrets as a condition of employment. An independent agency’s entire top-line budget would be OSINT or unclassified operations which would reduce anchoring or subordinating OSINT under classified or other line items.*<sup>25</sup>

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## What’s Holding Us Back?

The recent public literature on OSINT provides commonsense solutions based on sound reasoning. Unfortunately, most of these authors ignore the issues that open-source practitioners have wrestled with in recent memory. What I did not see expressed so prominently in the public debate are the persistent questions that have driven conflict

and change within the IC OSINT community, at least as I experienced it for 15 years at the Open Source Enterprise and its predecessor organization, the Open Source Center.

In recent years, we asked questions such as: What level of curation does open-source data need to be of use to our IC colleagues? What

formats and delivery systems fit best into our customers’ workflows so they have OSINT just when they need it? How can we leverage subject-matter expertise to identify collection gaps at scale? And the big question: should OSINT tradecraft be centered on data analysis or should it draw on media, cultural, linguistic, and historical expertise?

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a. See Chris Rasmussen, “How the Intelligence Community Has Held Back Open-Source Intelligence, and How It Needs to Change,” *Studies in Intelligence*, Vol. 68, No. 3 (June 2024).



Lewis Carroll, *Through the Looking Glass, and what Alice found there*, Macmillan & Co, 1872 © Macmillan & Co Ltd. © thanks to Macmillan Children's Books

These fiercely debated questions remain absent from the public discourse, which is largely driven by nonpractitioners and is focused more on technological or high-level organizational solutions. Few prominent advocates of changes in open-source of one variety or another have served as OSINT officers, rendering opaque the realities of roadblocks to innovation within the discipline to those who have not walked in our shoes.

And it is this opacity of open-source intelligence to nonpractitioners that is the key obstacle to OSINT's evolution within the IC. An issue with confusing terminology, which has multiple seniors nominally in charge of it, and which lacks a clearly defined mission does not inspire bold action, particularly

if that action requires significant investment of money and people in a time of scarcity. The dazzle of AI/ML technologies—genuinely promising approaches that few genuinely understand—means that AI-enabled OSINT is both the proverbial shiny object that attracts attention and is worthy of healthy skepticism. The IC functions well when the need for mission and its solution are clear and obvious to the majority, and the failure of senior leadership across the IC to resolve the open source intelligence problem so far is a healthy symptom of a functioning system. No clear solution exists and the mission need has not been articulated clearly enough for senior leaders, middle management, or line officers across the system to support the disruption

and expense needed for meaningful change.

It is for this reason that the question at the heart of this debate is the most difficult to resolve: How can IC leadership justify taking decisive action on open source intelligence?

The belief that something about OSINT is *probably* useful seems to be present in the current zeitgeist. (While skeptics of open source certainly exist, they are not a very vocal minority. I could find only a couple of authors disparaging open source for intelligence work altogether, mostly those pointing out how enemies can use open-source information as part of denial and deception techniques.) But that “something”

remains difficult to articulate in all mission spaces.

Speaking as one of those weary open-source evangelists who for years has failed to explain its critical relevance to audiences within the IC, I can only make this appeal: that today's OSINT leaders in the IC take forceful action to press for a solution rather than wait for mainstream understanding that will never come without top-down guidance.

"Now, here, you see, it takes all the running you can do, to keep in the same place," observed the Red Queen in Lewis Carroll's *Through the Looking-Glass*. First applied to evolutionary theory by Leigh Van Valen, the Red Queen hypothesis holds that organisms must continuously evolve to keep up with their adversaries, who are also evolving. OSINT has been held back by conflicting visions, diffident leadership, and disparate initiatives.

At this point, taking half measures is unlikely to move the needle. Our adversaries are taking bolder, more aggressive approaches. As this review of the literature reveals, the only thing everyone agrees on is that we must again become a world-class player in the open-source realm to maintain our edge in intelligence—whatever path the IC chooses. ■

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## Endnotes

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