The terrorist outrages in the United States (US) on September 11th 2001 created unprecedented challenges for intelligence and security communities and policy makers. Anxiety over further attack led to a profusion of intelligence being raised to Presidential and senior executive level. Condoleezza Rice, who in 2001 was National Security Advisor to Present Bush, said “we basically went from no information to floods. It just started flooding with everything. So now you were getting unassessed intelligence. You know, just about anything anyone said might be a threat.” (Bumiller, 2007, p. 168). A prevailing mood of trepidation, risk aversion and fear of omission may somewhat explain the readiness of intelligence agencies to have ‘over shared’ (Betts, 2007, p. 178-182). Analytical quality seems to have been sacrificed for speed of dissemination and breadth of coverage. In such
circumstances, the potential for disagreement, confusion, paralysis, demoralisation, misunderstanding of risk and other pathologies appears very real.

In assessing intelligence agency performance and utility more generally, a critical question arises as to their own susceptibility to information overload. With exponential growth in open sources, fluid domestic and international risks and technological advance, agencies might understandably struggle with multiple concurrent high volume / high tempo requirements. To explore this proposition, the leak of diplomatic cables and datasets from the Afghan and Iraq wars (Madar, 2013, pp. 55-80) by Private Bradley Manning (now Chelsea Manning and hereafter referred to in the feminine) are taken together as a case study. Further, Lovink and Riemens (2010) propose “Twelve Theses” on the nature of WikiLeaks. This paper adds a further hypothesis, namely that WikiLeaks itself exhibits characteristics of an intelligence agency, and is susceptible to information overload.

If the securitising hyperbole ascribed to some of the more hawkish commentators (Benkler, 2011, p. 313) is believed, the leaks represented a multi-wave, multi-vector national intelligence crisis requiring triage, containment and response across a
multiplicity of stakeholder concerns. Others interpreted the leaks as anodyne, bordering on inconvenient (Ibid, p. 312). The ‘dare to share’ and ‘fear to omit’ culture to which Rice eludes is arguably causative in Manning’s ability to execute a leak of such scale. To explore more deeply, a synopsis of the Manning leak is first presented. As an analytical handrail, a model grouping key discussion points around the observation, orientation, decision and action (OODA) concepts in John Boyd’s OODA loop (Coram, 2004, pp. 327-344) is then described. This provides a logical construct against which information overload risks are then contextualised and explored. Evidence points are sought to determine the veracity of claims of impact from perspectives of both US Intelligence and WikiLeaks (Fenster, 2012, pp. 788-802).

Manning was an intelligence analyst on deployment with the US Army in Iraq. Her role provided access to classified material from the Secret Internet Protocol Router Network (SIPRNet). Manning’s state of mind and feelings of isolation have been widely reported and may have contributed to her general instability and motive (Leigh and Harding, 2013, p. 27). Manning illegally exfiltrated and shared approximately three quarters of a million documents in three major breaches (Tiffen,
2011, pp. 1-3). These included both classified and unclassified assets. In January 2010, Manning downloaded 400,000 documents relating to the conflict in Iraq (latterly known as the Iraq War logs) and days later 91,000 documents relating to the Afghan War (latterly known as the Afghan War Diaries) (Madar, 2013, pp. 55-80). In the weeks following, Manning transferred the material to WikiLeaks. Towards the end of March 2010, Manning further downloaded approximately 250,000 diplomatic cables, also passing them to WikiLeaks. The cables comprised material sent by over 200 US diplomatic missions in 180 countries to the US State Department (Gillid and Spirling, 2015). Manning also leaked a diplomatic cable from the US Embassy in Reykjavik, an encrypted video purporting to be of the Granai air strike which killed numerous Afghan civilians (Farmer, 2010), as well as a video showing an air-to-ground engagement in Baghdad that killed several men, including two Reuters journalists (Bellia, 2012, p. 1475).

The timeline of publication of the leaked material by WikiLeaks is elongated. In February 2010 shortly after receipt from Manning, WikiLeaks published the Reykjavik cable. In early April, the Baghdad air-to-ground strike video was released, entitled “Collateral Murder” (Domscheit-Berg, 2011, pp. 154-163). In July, WikiLeaks
and some partner media outlets began publication of the 90,000 documents that constituted the Afghan War Logs. Notably this is set against a backdrop of ongoing US military and diplomatic engagement in Afghanistan and Iraq. In October, almost 400,000 military reports from the Iraq war were published. Just over a month later, staged publication of the leaked diplomatic cables began. Some data was held back or redacted from the early releases of the cables (Benkler, 2011, p. 312), however within 12 months, WikiLeaks published the full unredacted set. The potential security and strategic impact on US interests undoubtedly raised critical questions and concerns throughout the timeline.

Having briefly touched on the scale and back story of Manning’s leaks, it is next helpful to analyse and explore a hypothetical crisis response lifecycle. This takes the perspective of the US intelligence community. To structure the analysis, a 3-part model is used. The first part of the model enumerates illustrative policy maker or stakeholder concerns (Lowenthal, 2017, pp. 277-302). These are key questions likely to arise in the detection, verification, triage and containment of the leaks. They feed forward as demand signals into part 2 of the model. Part 2 brigades intelligence response and contains the components of the intelligence cycle, namely direction...
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A Tale of WikiLeaks, Chelsea Manning and Julian Assange
Nimmons Consulting, London, April 2018
Eur Ing Steve Nimmons FBCS CITP FIET CEng FRSA

(the connection point with part 1), collection (Ibid., pp. 91-161), analysis (Ibid., pp. 163-220) and dissemination. Dissemination feeds forward into Part 3 of the model, closing the loop, hypothesising resulting decisions, actions and effects. Demand and supply relationships exist throughout, and the information overload potential across these relationships is examined.

The model shares familial characteristics with John Boyd’s OODA (Observe, Orient, Decide, Act) loop. It is helpful to bring this into the analytical foreground, as a challenge in crisis response is to drive operational tempo sufficiently to outpace and outwit adversaries (Adams, 2011, pp. 4-6). As WikiLeaks, rival governments, foreign intelligence, hacktivists, criminals and other actors may seek to exploit, extend and amplify the effect of each leak (Prier, 2017, pp. 51-59). It is important therefore to contain, and where feasible, seize and hold the initiative. This is of course an entirely non-trivial challenge, and encapsulates some of the difficulties faced by Rice after 9/11.

In exploring the first part of the response model, three guiding questions are posed:

1) how may ‘in-scope’ policy and decision making stakeholders be categorised

2)
what are their outline information and intelligence needs, (3) what are the key challenges in meeting those needs. Drawn together, these begin to illuminate the information overload potential caused by sudden demand spikes.

Firstly, hypothesising a simple stakeholder taxonomy, interested parties are drawn from the executive level of government, the Department of State, Department of Defence, Department of Homeland Security, Department of Justice, federal law enforcement and others. A multiplicity of diplomatic stakeholders are involved in understanding and shaping responses in their aligned geographies. Take for example numerous reported diplomatic impacts including in Israel (Spyer, 2011) and Egypt (Mabon, 2013), the wider Middle East (Bicakci et al., 2014) across Latin America (The Nation, 2012) and the Horn of Africa (Lefebvre, 2012) and the expulsion of the US Ambassador to Uruguay. From the Joint Chiefs of Staff down through Unified Combatant Commands, stakeholders across the US Defence community are engaged (Defense Intelligence Agency, 2011). Through the investigation of the source, method and motive of the leak, law enforcement and judicial stakeholders are drawn in. An expansive, polycentric community therefore ‘emerges’ with diverse interests and intelligence requirements.
Secondly, in relation to categorising intelligence needs, an additional taxonomy is helpful. At the top level this spans, political, economic, social, technological, legal and security concerns. By way of illustration, policy makers in the Department of State are likely to question whether the leaks are politically motivated, whether there has been foreign direction, collusion or coercion, what the likely political fall-out will be, including with allies. Questions arise as to potential damage to US economic interests such as existing trade agreements or negotiations. Sociologically, domestic and international sentiment must be considered. The technological nature of the leak is of interest to law enforcement and military investigators. It must be questioned whether the leak is a hoax, certain material falsified, encrypted or redacted, whether systems remain vulnerable to further breach and how the leak is technically propagated (Wong and Brown, 2013, p. 1023). Legal concerns may include revelations of human rights or ethical violations, such as those alleged in relation to the ‘Collateral Murder’ video (Lazare and Harvey, 2010). From a security perspective, questions arise as to compromise of personally identifiable information, tradecraft, technical and human sources. Analytical richness is therefore expansive.
and goes far beyond understanding the security classification of individual leaked items.

Thirdly, in elucidating key intelligence challenges it is helpful to consider how stakeholder and information needs draw together into a logical ‘demand matrix’. Conceptually think of stakeholders as rows, and intelligence needs as columns. The virtue of prioritising, co-ordinating and de-conflicting effort is apparent. Such purity however may be debarred by the volatility and tempo of events and the structure and culture of US intelligence. On one hand, there is an evolving global reaction to extant leaks. On the other hand, WikiLeaks dictates events by deciding what is further leaked and when. The potential for destabilisation cannot simply be taken as non-trivial. For example, one of the leaked diplomatic cables from Tunisia, critical of President Ben Ali’s decadence and corruption was considered by some as material cause in the genesis of the Arab Spring (Bachrach, 2011). With the potential for hundreds of thousands of other leaked items to enter public circulation (along with material from Iraq and Afghan wars), the scaling factor driving complexity and immediacy of intelligence need seems stark. As these demand flows set direction for
the intelligence cycles in part 2 of the model, there is an immediate risk that demand could outpace capacity to supply.

In exploring the second part of the model, three further questions are posed: (1) what US intelligence agencies are involved in problem solving (2) what methods and intelligence sources are most relevant, (3) what are the key challenges in meeting stakeholder demand. Drawn together, these form a conceptual ‘supply matrix’.

Firstly, in relation to the US intelligence community, agencies under the Department of Defense include the Defense Intelligence Agency (DIA), Departments of the Army, Navy and Airforce and US Marine Corps, National Security Agency (NSA) as lead agency for Signals Intelligence (SIGINT), the National Geospatial Intelligence Agency (NGA) as lead for Geospatial Intelligence (GEOINT) and the National Reconnaissance Office (NRO). The Department of Justice’s Federal Bureau of Investigation (FBI) and Drug Enforcement Agency (DEA), the Department of Homeland Security, Department of the Treasury, Department of Energy and Department of State provide additional capability. The Central Intelligence Agency (CIA) as lead for foreign secret intelligence and the overarching co-ordinating Office
of the Director of National Intelligence (ODNI) are independent agencies (Lowenthal, 2017, pp. 39-70).

US intelligence agencies, structurally and culturally, are highly capable of self-direction and action. For example, the Department of State maintains its own intelligence function, the Bureau of Intelligence and Research, the Department of the Treasury houses the US Treasury Office of Terrorism and Financial Intelligence and the Department of Energy houses the National Nuclear Security Agency, tasked with nuclear counterterrorism and counterproliferation. The ODNI has a key function in intelligence integration and co-ordination across agencies. The establishment of the Office of the Director of National Intelligence for Intelligence Integration (DDII) in October 2010 is contemporaneous with the timeline of the leaks.

Secondly, in terms of sources and methods, the importance of SIGINT, Human Intelligence (HUMINT), and GEINT is next considered, touching on the roles of the NSA, CIA and NGA. Pulling through a sample of the technological and sociological questions previously hypothesised, the NSA has a role to play in ascertaining the veracity of leaked material, determining how much is already public domain, tracing
its flow through the open and dark web, looking for tell-tale fingerprints of hostile foreign intelligence or criminal involvement. In measuring public sentiment across media and social channels (Prier, 2017), a wide spectrum of global open sources may be utilised to assess news reporting and social sharing and commentary. The breadth and depth of available open sources, coupled with the tempo of the real-time web, highlights a critical risk. If collection and analysis are not synchronised, the intelligence cycle could easily breakdown.

Pulling through further political and security questions, the CIA has a role in assessing global and regional security risks and through its world-wide bureaus and HUMINT capabilities, supporting the Department of State in assessing and managing diplomatic fall-out. Protection of covert human intelligence sources is time critical, further illustrating the importance of operational tempo as well as analytical breadth at global scale. The NGA has a role to play in assessing leaked geocoded data. Troop positions, patrol patterns, attack positions, enemy and casualty hotspots and other exploitable information may be pertinent. The potential to overlay additional datasets, including specialist and open source material expands the depth
and richness of GEOINT analysis (O’Loughlin et al., 2010, pp. 474-479) as well as information overload potential.

Thirdly, in summarising the key challenges in meeting intelligence demand, there are a number of factors of note: (1) The complexity of the US intelligence community and the significant operational independence of its constituent agencies, as described. If collection is poorly co-ordinated, the Swarm Ball problem (Lowenthal, 2017, p. 99) in which multiple agencies chase the same sources may arise; (2) the number of potential ingress and egress points between agencies and co-ordinating functions including the ODNI that could suffer information overload; (3) the volume of potential demand across a range of key stakeholders, particularly if a securitised narrative of the leaks is accepted; (4) the potential impedance mismatch between collection and analysis within intelligence cycles and the danger this poses; (5) the need to drive and balance operational tempo, analytical breadth and depth; (6) intelligence sharing with allies, adding additional complexity and (7) that the WikiLeaks publications do not occur in a vacuum. Rather they represent an additional demand spike on top of existing complex global intelligence operations.
In exploring the third part of the model, closing the loop with Decision and Action, three final questions are posed: (1) what are the key challenges for decision makers in formulating hypotheses and choosing definitive courses of action, (2) what are the co-ordination challenges in executing these actions and (3) how may efficacy of action be assessed. Information overload challenges in each are further identified.

Firstly, as intelligence flows back to decision makers, they must hypothesise and decide between competing courses of action. The quality of intelligence received is a key determinant of outcome. Intelligence that is late, inaccurate, overly generalised, lacking in fresh insight, technically incomprehensible, improperly contextualised or simply unassessed is likely to confuse, frustrate or paralyse. There may additionally be multiple intelligence providers competing for stakeholder attention (Tetlock and Mellers, 2011, 550-551). As captioned by Condoleezza Rice’s opening quote, a resulting flood of unassessed intelligence is unhelpful and points to ‘broken filters’ in collection, assessment and dissemination. As a counterpoint, ‘fear to omit’ may plausibly drive the behaviour of intelligence providers. There must be honest conversations between parties to ensure appropriate direction is set and intelligence expectations are understood and met.
Secondly, in co-ordination of action: leadership, transparency, co-operation and fluent communications are essential. Intelligence fusion, joint taskforces, multi-agency and multi-disciplinary teams, scenario planning, crisis management rehearsal and drilling may all prove fruitful. The risk of information overload may therefore be somewhat mitigated by clear lines of command, control and communication, all understood and deconflicted in advance. Although integration of the US intelligence community has improved since 9/11, the independence and hegemony of some agencies may still impede.

Thirdly, in assessing efficacy of action it is important to gauge how interventions influence unfolding crises. Decision makers need to know if actions are improving or worsening the situation and whether in line with expectations. However, tracking (lead and lag) indicators through political, economic, social, technological, legal and security concerns globally, regionally and by country may exacerbate the information overload risk. Understanding causal relationships in a highly complex adaptive system (Clemente, 2011, p.19) may simply be forlorn. With other actors (not least WikiLeaks) attempting to control events, and a world-system in constant flux, the
problem itself appears wicked (Buchanan, 1992, pp. 14-19). Decisions makers must therefore ask and seek answers to genuinely tractable questions.

The analysis of the impact of the leaks has majored on the US intelligence response. It is worth briefly noting that WikiLeaks has (at times) directed information collection through its ‘most wanted list’, has analysis and synthesis capabilities, some of which it scales through partner agencies and crowdsourcing, and disseminates packaged material through its own site and media partners. WikiLeaks used sophisticated cryptography, counterintelligence, counter-surveillance, insurance files and other tradecraft including safe houses, burner phones, cash transactions and source protection. Their modus operandi transcends that of the investigative journalist. Arguably due to limited size, capability and resources their susceptibility to information overload is an ostensible handicap when processing mega-leaks.

In conclusion, the scale of material leaked by Manning has been portrayed as one of the most significant compromises in the history of US intelligence. She had access to vast databases and information resources, a miniscule fraction of which could have been useful to her intelligence function. The publication of the exfiltrated material by
WikiLeaks potentially made gift of it to foreign intelligence services, organised criminals, insurgents and terrorists as well as investigative journalists, human rights organisations, the commentariat and general public. Reputations of the US government, diplomatic missions, military commands, allies and partners, world leaders, friendly governments as well as military operations in Iraq and Afghanistan were potentially risked. Hawkish and heavily securitised interpretations of the impact of Manning’s leaks are perhaps unsubstantiated. This does not however negate the burden of tasking scarce intelligence resource with triaging and containing the resulting crises. Wasting intelligence ‘clock-cycles’ is potentially dangerous, if not simply malevolent. It is paradoxical, that ‘dare to share’ culture was an enabler of this spillage, which itself then spawned a multiplicity of additional information overload risks. Acolytes of Julian Assange and WikiLeaks may argue that Manning served a higher cause and that her motives were noble and self-sacrificing. An alternative view has been proposed, that WikiLeaks itself exhibits characteristics of an intelligence agency and that it too suffers from information overload.
Bibliography


A Tale of WikiLeaks, Chelsea Manning and Julian Assange
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Eur Ing Steve Nimmons FBCS CITP FIET CEng FRSA


About the Author

Steve Nimmons is consultant and writer.

He is a
- Patron of the Royal Institution of Great Britain (Electric Circle)
- Chartered Fellow of the British Computer Society (FBCS CITP)
- Fellow of the Institution of Engineering and Technology (FIET)
- Certified European Engineer (Eur Ing)
- Chartered Engineer (CEng)
- Fellow of the Royal Society of Arts (FRSA)
- Fellow of the Linnean Society (FLS)
- Fellow of the Society of Antiquaries of Scotland (FSA Scot)

His interests include:
- Digital Innovation and Digital Transformation in Defence, Security and Policing
- Complex Problem Solving
- International Relations
- Counterterrorism & Smart Cities
- Cyber Security