

On May 2<sup>nd</sup> 2011 President Obama delivered an address to the nation where he confirmed an operation had been conducted in Pakistan earlier that night and had resulted in the killing of Osama Bin Laden. President Obama remarked that night that “the death of bin Laden [marked] the most significant achievement to date in our nation’s effort to defeat al-Qaeda.” Today its former affiliate the Islamic State of Iraq and the Levant (ISIL) and some al-Qaeda affiliates still maintain a robust capability to conduct attacks against the West as they have repeatedly demonstrated this past year. During a hearing in front of the Senate Foreign Relations committee a senior US official estimated we had killed “100 mid-senior level [ISIL] officials” this figure was used as a measure of how effective US counter-terrorism policy has been over the past year. However, focusing on targeting leadership with US kinetic assets seemingly reduces a global network into nothing more than a local insurgent group. I would like to explore how ISIL and other such groups have built their organization to survive a continual loss of leadership through its bureaucracy and through its networked structures.

ISIL has developed a robust bureaucracy to maintain control of their finances and to ensure a seamless transition of leadership. Captured documents in raids by US forces at several different points during the insurgency in Iraq gave us a unique insight into the day to day book keeping that the organization maintained. Al-Qaeda in Iraq (AQI), the predecessor organization of ISIL, had developed a comprehensive salary structure to accommodate different marital statuses, experience levels, productivity, and distinguished between foreign and local fighters. AQI also had to account for day to day expenses of each province under their control, as well as revenue coming in and trends in revenue in these areas. AQI utilized standard spread sheets to account for these variables and even assigned different provinces serial numbers to streamline the process. Perhaps the most interesting finding in these documents is that they reveal AQI

struggled with dealing with corruption in their organization so to combat this the bureaucracy forced AQI operatives and local leaders to fill out request forms, receipts, and expense reports to account for their spending as well as justification for their requests. Intelligence gathered from the group's documents also suggests that ISIL has a wealth of competent individuals ready to take leadership roles when the need will arise. The documents recovered suggest because of the high turnover in leadership that extensive record keeping took place so each leader had the full operational picture in the event of a decapitation strike.

After the fall of the Saddam regime some former intelligence officers, former army officers, and jihadist were held in a prison called Camp Bucca this was eventually dubbed the Jihadi War College by US intelligence. These relationships formed in Camp Bucca attracted these former regime officials to ISIL and these former prisoners began to make up the upper echelon and middle levels of leadership. The former officers of the Saddam regime added robust experience to ISIL because these men had a wealth of experience running an authoritarian regime and conducting military operations against well trained conventional forces. However, more importantly these individuals could institutionalize their knowledge to pass on to future generations of members in the event of their deaths.

The difficulty in dealing with ISIL is that it doesn't just function as a top down bureaucracy, but it functions as a well-organized network that can transfer different kinds of capital quickly. The nature of the networked approach is meant to adapt to and in many ways to counter the continual losses of leadership in the Iraq and Syria. The network is also able to continue the transfer of transactional knowledge to affiliate groups and to give them the ability to operate without the reliance on central leadership, and expand their capability and capacity by forming relationships with other types of groups.

This has been demonstrated by AQ and ISIL whose affiliated groups have developed lateral relations within the organization, local groups, and between organized crime creating inter-connected nodes across the globe giving these groups alternative sources of funding and access to weaponry and alternative channels for advice and ideological clarity rather than reliance within their own group or far off authority figures. Much attention has been given to the oil revenue that ISIL benefited from by controlling key oil producing areas in Iraq. The ability to smuggle and trade in illicit crude oil wasn't a foreign practice to many of the leaders in ISIL. The Iraqi members of the group had an intimate knowledge of the practice and viable ties with organized crime. During the US sanction regime against Iraq in the 90's members of Saddam's regime developed a robust smuggling network that ISIL has rejuvenated this network out of their need to sell off their oil supply to generate revenue.

The nature of the network is to expand and expand in whatever nation a group wishes to fly the standard of ISIL. ISIL has been adding very capable affiliates like Boko Haram, a viable sanctuary with its affiliates in Libya, and an increasingly capable affiliate in the Sinai Peninsula. With the expansion of the network simply retaking and lost territory in Syria and Iraq will not be the death of ISIL. With access to multiple safe havens and the ability to inspire and direct terrorist attacks utilizing modern communication platforms in developing nations and the West ISIL will remain a threat. Even if all the territory is recaptured in Syria and Iraq and a peace agreement is reached ISIL will remain a capable insurgent group that threatens the overall political stability of these countries and the region as a whole.

David Arquila asserts in his report "The Advent of Netwar" hierarchical organizations have difficulty combating networked organizations because success against these types of organizations stems from the "willingness to innovate organizationally and doctrinally." It is

often said that we are waging war against our current enemy with the doctrine of yesteryear. While the US has institutionalized many measures to decrease the likelihood of another 9/11 and has largely been successful in protecting the homeland against another mass casualty attack, we have yet to gain a lasting victory against these groups. Ultimately to defeat ISIL and AQ the foundation of success is reliant on rapid adaptation of bureaucracies with agencies that have fundamental disagreements of the definition of terrorism and the strategies to combat it. This is a difficult task with one government much less replicating this process globally and consolidating just the definitional issues of different intelligence and law enforcement agencies across the globe much less securing intelligence sharing agreements with inherently clandestine organizations. Compared to ISIL and AQ who have frequently demonstrated a willingness to adapt to survive.

The rapid evolution of the “internet of things” and the growing understanding of how to exploit weaknesses in US cyber-security has produced a new challenge for the next generation of counter-terrorism and national security officials. These platforms can not only help shape a narrative of an attack, but have been rumored to have helped coordinate mass casualty attacks like on Mumbai in 2008 as well as opening a new domain. Government agencies are struggling with the deficiency of legal framework and counter-narrative strategies on these platforms to effectively combat violent extremism. Private companies are also facing their own challenges with the usage of their platforms as a tool in the ISIL repertoire. By in large most of these companies weren’t built around how to analyze and take down extremist content efficiently leading to a lack of structure and personal for this task. For years, many of these companies have relied on manual reporting of extremist content slowing down the process of taking content

down, recruiters remain active on some platforms for long periods of time, and can consistently reappear after suspension with slight alterations in their usernames.

I will be the first to admit that my research is just wading into the complexities of how structures impact survival. What I think is most interesting is how does the network survive and evolve when the central node is either decapitated or it is ineffective and how networked organizations interact and adopt modern technology to aid their survival. Researchers like Jarret Brachman at the University of Maryland, assert that social media and encrypted technology have given recruiters and potential recruits a safer space to communicate and more access to the everyday world of the fighters on the front line, life in their vision of a “utopia,” and what their role in this society would be. Brachman argues that the level of accessibility and interaction lowers the mental walls built around the idea of leaving one’s family and traveling to a foreign land. The increased access in some sense creates a virtual kinship bond that may be akin to ones developed in prisons, soccer clubs, and university groups that have been utilized in the past for recruitment by extremist groups. The idea of network centric warfare, and integration informed the development of an entire generation of weapons by US. However, we must now ask ourselves how the rapid evolution of organizations and technology have changed the way our enemies fight, recruit, and survive. These are difficult questions that require more in depth studies with a vast range of policy implications.