Adapt-Qaeda: Analyzing the Relationship between Organizational Transformation and the Exploitation of Information Technology

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This paper traces and analyzes the organizational evolution of al-Qaeda from the late 1980s to the present day. It notes that al-Qaeda initially exhibited a hierarchical system and then adopted a hub network approach. Following 9/11 and the U.S assault in Afghanistan, the environment in which al-Qaeda acted within was drastically altered and organizational changes became necessary. Employing the concept of a “dune” organization to explain the unique and fluid organizational features al-Qaeda currently exhibits, the paper argues that al-Qaeda strategically chose to exploit the Internet and other information technologies in order to overcome its organizational and tactical limitations. This exploitation of information technology has led to the widespread and unfiltered transmission and reception of its ideological principles. Although recent cases demonstrate the emergence of “lone wolves” radicalized by al-Qaeda’s Internet activities, the broader ramifications of al-Qaeda’s exploitation of the Internet and information technology for mass mobilization and operational considerations remain unclear.

Since the end of the Cold War, the world has witnessed the emergence of non-state actors as pivotal players in the international arena. These non-state actors include national and transnational criminal organizations, national and transnational non-governmental organizations concerned with human and minority rights, and netforces.¹ The latter two groups consists of actors who are committed to the advancement of certain principles or ideologies and attempt—through rhetoric, litigation, violence, politics, reporting, propaganda, and other means—to compel other social actors (including other non-state actors) to assist in or avoid obstructing the realization of their stated goals. These actors act within certain geopolitical contexts and must respond to actions by other actors that either constrain or support their respective causes. Paralleling the emergence of these non-state actors is the rapid advancement and proliferation of information technologies that provide social actors with new avenues and opportunities that can further their respective causes. This paper will analyze the changing organizational

¹ Mary Kaldor defines netforces as “armed networks of non-state and state actors. They include: para-military groups organised around a charismatic leader, warlords who control particular areas, terrorist cells, fanatic volunteers like the Mujahadeen, organised criminal groups, units of regular forces or other security services, as well as mercenaries and private military companies.”
structure of one such non-state actor, the terrorist network al-Qaeda, and then proceed to assess how al-Qaeda’s current organizational structure influences its use of information technology (focusing primarily on its use of the Internet) to spread its ideology, recruit, and attack its targets. It will conclude with a discussion of the implications of these findings for al-Qaeda’s future activities.

Overview and Conceptualization of al-Qaeda’s Organizational Transformations

Al-Qaeda (“the Base”) originated in the late 1980s with the expressed purpose of engaging in *jihad* against Western influences that were seen as polluting the *ummah* (the global Muslim community) and corrupting Muslim governments. Its ultimate goal was to restore the transnational Caliphate. (Fishman 2006) Al-Qaeda is the successor organization to the Services Office, which was “a clearinghouse for the international Muslim brigade opposed to the 1979 Soviet invasion of Afghanistan.” (Bajoria and Bruno 2009) Osama bin Laden and Dr. Abdullah al-Azzam created the Services Office in order to facilitate the movement of Muslims who wished to engage in the struggle against the Soviets. Since its birth, al-Qaeda has been a multinational operation: the men often attributed with the creation of the organization, Osama Bin Laden and Al-Zawahiri, hail respectively from Saudi Arabia and Egypt. The organization also exhibited a clear religious-orientation at its inception: “[i]ts ‘founding fathers’ came to fight, under the banner of Islam, against a superpower determined to oppress an Islamic revolution. Bin Laden and Al-Zawahiri arrived at the recruitment base of Peshawar located on the Afghan–Pakistan border, along with other so-called Arab Afghans, who streamed in from all over the Arab world to join this Jihad.”

It was this understanding of geopolitics that inspired bin Laden to form al-Qaeda and ensure the continuation of the “holy war” against other Western powers. This conception of Islam as endangered by a belligerent, heretic, foreign enemy—often termed as an inevitable and irresolvable clash of civilizations—persists to the present day and constitutes the dominant paradigm through which Islamist terrorist groups, especially transnational networks such as al-Qaeda, legitimate their existence and frame their efforts to recruit and attack targets.

Al-Qaeda’s organizational features during its early years can be conceptualized as a hierarchical structure. A hierarchical organization exhibits the following characteristics: a well-defined, top-down system of communication; well-defined and rigid positions and responsibilities; a rigid command chain; and clear

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2 According to some experts, Dr. al-Azzam is responsible for the creation of the intellectual foundation underpinning *jihad* and the “clash of civilizations” worldview it presents. See Katzman (2005, 4).

3 Once the expulsion of the Soviets in Afghanistan became a certainty, the leaders of the *mujahideen* (Osama bin Laden and al-Azzam) were faced with an existential crisis. Al-Azzam sought to use the volunteer network as a rapid response organization that could assist endangered Muslims. Bin Laden, however, sought to use the network to actively topple secular regimes in the Muslim world. Al-Azzam’s assassination in November 1989 ensured that Bin Laden’s vision for the organization would triumph. See Katzman (2005).
time horizons for operations. (Mishal and Rosenthal 2005) This organizational structure is conducive to stability because it hinders communication between members operating at the same level who may share grievances or seek to challenge the organization’s leadership. Ideology is less important for hierarchical organizations because formal, explicit rules are employed to maintain organizational cohesion and bridge actors.

The emir (bin Laden) sat atop this pyramid and was able to control and monitor the activities of the organization’s lower strata (see schematic drawing: Al-Qaeda Organizational Structure). This hierarchical system, borrowed from the structure of the Services Office, allowed al-Qaeda to best respond to the threat posed by the Soviet forces and facilitate and control the movement of Muslim volunteers.

![Al-Qaeda Organizational Structure](image)


Al-Qaeda’s decision to espouse new objectives that focused on a global understanding of *jihad*, as opposed to the more localized or restricted conceptions espoused by organizations such as Hezbollah and Hamas, required a significant organizational transformation towards a network structure. The hierarchical structure employed by the organization in its previous efforts was too rigid and incompatible with the organization’s desire to engage in a transnational effort against the stated enemy. An organization or group of organizations exhibits a network structure when “organizations constitute overlapping policy communities” and heterogeneity, rather than homogeneity, is present. (Mishal and Rosenthal 2005) Arquilla and Ronfeldt (2001) conceptualize the network approach as “a set of diverse, dispersed ‘nodes’ who share a set of ideas and interests and who are arrayed to act in a fully intermitted ‘all-channel’ manner.” There are three “ideal types” of networks: chain networks, hub networks, and all-channel networks. For our purposes, it is only imperative to elaborate on the hub network approach. Mishal and Rosenthal (2005) characterize the hub network as a system in which “all orders come from the player located at the center, and all information must pass through that node. Thus, one player sees the whole picture, while all other players

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4 For an explanation of these different network types, see Arquilla and Ronfeldt (2001, 7-8).
are subordinated to that central player, at least in the sense of receiving and transferring information.” (Mishal and Rosenthal 2005)

It should be noted that although the hub network approach resembles the hierarchical approach in that both approaches grant significant oversight to a single or exclusive cohort or actors, a hub network does not demonstrate the rigidity in responsibilities and rules exhibited by a hierarchical structure. Networks are also likely to employ new technologies and innovative tactics in preparing and executing their attacks and spreading their ideology. In contrast to the formal rules and rigidity of a hierarchical structure that create opportunities for certain actors within an organization or group of organizations to dominate and command others actors within the organization, the network approach is more fluid and supports bargaining and guidance between actors in the network. (Mishal and Rosenthal 2005) Despite this inherent flexibility, certain actors within the network are responsible for establishing and maintaining the strength of the bonds that connect the different nodes within the network. These actors often use ideology to maintain the network’s bonds and ensure that the various nodes adhere to the network’s stated objectives.

Al-Qaeda exhibited a hub network approach from 1998 to September 11th, 2001. During this time period, bin Laden developed the “World Islamic Front for Jihad against the Jews and Crusaders,” which was essentially a network of organizations that adhered to the jihadi cause. This network extends throughout the Muslim world, from terrorist groups in Egypt to organizations in Pakistan and Bangladesh. Bin Laden established bases in Sudan and Afghanistan in order to ensure that his chain of communication and commands was efficient and that his instructions were delivered by reliable agents. (Mishal and Rosenthal 2005) These bases also catered to the spread of the organization’s ideology among the constituents of these countries. It is worth noting that both of these states were categorized as failed states: neither government was able to ensure the rule of law, maintain a monopoly on violence, or command the respect of their citizens. Conflict plagued these states and war lords held most of the power. The emergence of Taliban rule in 1996 provided bin Laden with a friendly, insulated territory that could serve as a base for his operations. This institutional presence and permanent base was crucial for the development and testing of long term, sophisticated attacks that relied on a multitude of actors with varied expertise and roles.

5 Bin Laden initially operated out of Saudi Arabia, but was expelled from the country following increasing tensions between him and the royal family in 1991. These tensions were the result of accusations made by Bin Laden that the Saudi government was betraying Islam by cooperating with the U.S. Bin Laden shifted to Sudan following his expulsion. In May 1996, the Sudanese government expelled bin Laden in response to demands by the U.S. and Egypt. That bin Laden remained in Sudan for several years and was only expelled in response for foreign pressure indicates that the government viewed bin Laden as a profitable partner, perhaps one that could enhance its image among the country’s Muslim citizens. See Katzman (2005, 3).
Did al-Qaeda’s adoption of the network approach facilitate the translation of its violent vision into reality? Most commentators agree that it did and support their claims by noting that the preparation and execution of 9/11 were conducted under the network system. (Mishal and Rosenthal 2005) The linkages formed between al-Qaeda and other organizations allowed al-Qaeda to mobilize a vast array of resources that spanned the globe. The terrorists responsible for executing 9/11 hailed from countries throughout the Muslim world and Europe and received training in several regions. Despite the geographically separate actors that participated in the attack, elites within al-Qaeda were able to coordinate the actions of these disparate elements and ensure the successful execution of an attack against the “head of the snake.”

The success of al-Qaeda’s network approach was also its downfall. Following 9/11, the U.S. retaliated against al-Qaeda and their affiliates with extreme force and precision. Much of al-Qaeda’s leadership was decimated. (U.S. Congress House Permanent Select Committee on Intelligence 2006) The leaders that remain and the new leaders that have emerged as replacements continue to constitute the primary focus of U.S. attacks. Since these leaders were responsible for ensuring the links between al-Qaeda and other organizations remained stable, the deaths of these leaders also meant the rapid erosion of the ties that bonded the distinct actors. The exchange of information and communication that made the network approach so profitable for al-Qaeda simply could not sustain these losses. Despite this, it must not be forgotten that the adoption of the network organizational structure was a strategic decision that contributed significantly to the planning and execution of 9/11. From this perspective, the network approach served its purpose by fostering an environment in which al-Qaeda’s members and ideologies could spread throughout the Muslim world and facilitate the execution of a large-scale attack.

Needless to say, the 9/11 attack drastically altered the international arena. Terrorism came to the forefront of most Western countries’ political and security discussions. In the United States, President George W. Bush announced the commencement of the “War on Terror.” States throughout the world altered their national security programs, creating new agencies and redirecting resources towards counterterrorism activities. The media continuously reported on Al-Qaeda, bin Laden, and “the next attack.”

How did al-Qaeda respond to these changes in the international arena and the constant barrage of attacks made by Coalition forces against all strata, but especially the elite, of its organization? Perhaps unsurprisingly, al-Qaeda responded (or was compelled to respond) by transforming its organizational structure. To persist in the same organizational pattern as it did prior to 9/11 and the U.S. assault was simply impossible. Its leadership understood that the world’s attention—and perhaps more importantly, the attention of the world’s sole superpower—was squarely focused on al-Qaeda. The organization’s funding was disrupted and drastically reduced, which in turn reduced its tactical capabilities. (U.S. Congress House Permanent Select Committee on Intelligence 2006) Its ability to control the activity of other organizations within the network was also diminished. With its leaders either lying dead or hiding in the remote mountains of the Afghanistan-Pakistan border, the organization was incapable of dedicating itself to strategic planning against the West, ensuring the maintenance of the network, or conducting
extensive recruitment and training campaigns. Viewing these events together, it is no surprise that the al-Qaeda of today has little or no resemblance to the al-Qaeda of the past.

Commentators and scholars have had a tremendously difficult time categorizing and conceptualizing al-Qaeda’s current organizational structure and what threat the organization now presents. Some observers have declared that al-Qaeda is no longer a network, while others argue that the organization no longer constitutes a credible threat to the U.S. and its allies. (Brachman 2006) Other observers, however, feel that al-Qaeda remains a credible threat and that most observers have been incapable of adequately assessing and conceptualizing its organizational transformation. (Bruno 2010) The latter group of observers have conceptualized al-Qaeda as a “leaderless resistance,” a “phantom cell network,” “autonomous leadership units,” “autonomous cells,” “a network of networks,” and “lone wolves” that are engaged in “netwar.” Evidently, even among those who agree that al-Qaeda remains a threat to the U.S., conceptual clarity in regards to the organization’s structure is disturbingly lacking. If al-Qaeda today cannot be conceptualized as a hierarchy or a network, how can and how should we conceptualize its organizational structure and the impact of that structure on its activities?

To that point, Mishal and Rosenthal have presented a new organizational schema for understanding al-Qaeda’s current structure. In its post-9/11 guise, al-Qaeda exhibits two unique characteristics: 1) it no longer maintains a territorial base from which it conducts operations and 2) it exhibits fluidity and speed in its engagement and disengagement with other organizations. Entitled the “dune” organizational structure, organizations that fall within this category are characterized by the following traits:
1. A lack of affiliation with any explicit territorial rational, thus rendering it difficult to monitor the organization’s maneuvers.
2. No imminent institutional presence. In fact, an organizational reality is often built on its disappearance.
3. Dynamic activity that lacks adherence to any sequential reasoning regarding interaction with other organizations.

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6 According to Gerges, al-Qaeda maintained a force of “about 3,000 to 4,000 fighters” in the late 1990s, but now only has “about 400 to 500 operatives” dispersed in Pakistan and Afghanistan.

7 John Arquilla and David Ronfeldt define “netwar” as “an emerging mode of conflict (and crime) at societal levels, short of traditional military warfare, in which the protagonists use network forms of organization and related doctrines, strategies and technologies attuned to the information age.”

8 The accuracy of the first characteristic in explaining al-Qaeda’s current status is subject to some dispute. According to General Petraeus, Al-Qaeda’s leaders “are using sanctuaries in Pakistan's lawless frontier regions to plan new terror attacks and funnel money, manpower and guidance to affiliates around the world.” If the General’s assessment is correct, then al-Qaeda still has, to some extent, a territorial base. See Dreazen 2009.
4. Command and communication chains that may be waived, intentionally fragmented, or severed at any point in time.
5. Consequent maneuverability among various interests and the attendant ability to align with different regional conflicts.
6. Adherence to a grand vision, such as global jihad, as a substitute for affiliation to a specific territory. (Misahl and Rosenthal 2005)

The distinctiveness of this organizational structure is exemplified when compared to al-Qaeda’s prior organizational features. Al-Qaeda no longer exhibits a rigid hierarchical or hub network structure through which its leaders can maintain the unity of the group’s ideology and its tactical operations. The communication and command and control chains present in those structures are simply nonexistent in today’s al-Qaeda. Under the hierarchical and network approaches, bin Laden was able to approve and monitor all operations undertaken by al-Qaeda. Because of the organization’s current structural and tactical weaknesses, al-Qaeda is increasingly reliant on other organizations to further the jihadi cause. The “hub” within Al-Qaeda, however, can no longer stringently control the activities of its partners and thus allies with other organizations only when interests temporarily coincide. It provides financial, nominal, and tactical assistance to partner organizations, but does not attempt to foster long-term relationships with other organizations as it did while operating under the network model.

Table 1
Typology of terrorist organizations

<table>
<thead>
<tr>
<th>Organizational structure</th>
<th>Time</th>
<th>Communication</th>
<th>Command and control</th>
<th>Specialization and division of labor</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hierarchy (Hizballah)</td>
<td>Specific</td>
<td>Vertical</td>
<td>Strict</td>
<td>Strict</td>
<td>Local</td>
</tr>
<tr>
<td>Network hub (Hamas)</td>
<td>Specific</td>
<td>Center-periphery</td>
<td>Strict</td>
<td>Flexible (leadership strict)</td>
<td>Local/global</td>
</tr>
<tr>
<td>Network chain (Hamas)</td>
<td>Specific</td>
<td>Sequential</td>
<td>Flexible</td>
<td>Flexible</td>
<td>Local/global</td>
</tr>
</tbody>
</table>

According to State Department’s counterterrorism coordinator Henry A. Crumpton: “Al-Qaeda aspires to have the type of global network it did prior to 9/11. It works toward that end but because of our partnerships around the globe, because of our collective operational success, al-Qaeda is crippled and is certainly not the organization it was. Al-Qaeda, however, has placed extra emphasis on inspiring other groups and trying to mobilize other groups and when and where possible, establishing links to these affiliated networks to have them help drive their agenda.” McMahon 2006.
Al-Qaeda’s relationship with Ansar al-Islam\textsuperscript{10} demonstrates the utility of the “dune” schema, especially in regards to al-Qaeda’s entrepreneurial approach to other organizations.\textsuperscript{11} Sometime after 1999, the Jordanian Abu Musab al-Zarqawi joined Ansar al-Islam and became the leader of its Arab division. Zarqawi had earlier operated a terrorist training camp in Afghanistan, but never joined al-Qaeda because of his ideological differences with bin Laden. Both men sought to restore the Caliphate, but their ideological congruence ended there. Bin Laden sought to restore the Caliphate by targeting Western states that supported heretical regimes in the Muslim world and polluted Muslims by encouraging Muslim societies to adopt non-Muslim cultural practices. This focus on the “far enemy” clashed with Zarqawi’s focus on the “near enemy,” defined as the “apostate cultural and political influence within the Islamic world, which [was a] separate issue from U.S. governmental support [of Muslim states].” (Fishman 2006) This ideological clash also led to a divergence in how each leader viewed the “non-mobilized” Muslim population. Whereas the al-Qaeda elite sought to ingratiate themselves towards the general Muslim population and convince them of the righteousness of their cause, Zarqawi condemned them and believed that by isolating himself, the ummah would eventually realize its erroneous ways and follow his heroic and pious lead. (Fishman 2006) Despite these ideological differences, in 2004, 18 months after the U.S.’s invasion of Iraq, Zarqawi established a new organization, dubbed al-Qaeda in Iraq (also known as al-Qaeda in Mesopotamia).\textsuperscript{12}

Why did Zarqawi “vow obedience” to bin Laden? The U.S. invasion of Iraq and its subsequent support of recreated Iraqi institutions conflated the “near enemy” and “far enemy”, unintentionally providing an incentive for both Zarqawi and bin Laden to join forces. This “alliance,” however, was self-serving for each side and born primarily out of convenience. It did not resemble in any fashion the permanent ideological congruencies extant in al-Qaeda’s network relations. The crippled al-Qaeda was able to associate itself with successful attacks by Zarqawi’s forces and thus vicariously continue its struggle. Zarqawi was able to recruit under the al-Qaeda banner and received funding and tactical advice. (Mishal 2005; Fishman 2006) Al-Qaeda’s inability to implement a hierarchical structure or hub network approach (which itself was the result of its failure to establish an

\textsuperscript{10} “Ansar al-Islam, formerly known as Ansar al-Sunna (AS), is a Sunni extremist group of Iraqi Kurds and Arabs intent on establishing a Salafi Islamic state in Iraq under sharia, a strict interpretation of Qur’anic instruction.” More information on the group is available at: \url{http://www.nctc.gov/site/groups/ai.html}.

\textsuperscript{11} Since the concept of a “dune” organization is relatively new and it is the author’s opinion that it is always wise to reinforce the empirical validity of new concepts, the applicability of this conceptualization to present-day al-Qaeda and its activities is provided through a thorough and extensive discussion.

\textsuperscript{12} Other organizations, such as al-Qaeda in the Islamic Maghreb, have also joined the al-Qaeda “franchise.” Not all organizations that al-Qaeda cooperates with, however, adopt the al-Qaeda name. For example, despite its extensive cooperation with al-Qaeda, the Shabaab militia in Somalia remains nominally unassociated with al-Qaeda.
institutional presence in Iraq) meant that Zarqawi was free to promote ideological views and tactics that contradicted those espoused by al-Qaeda. This combination of subordinate or node freedom and ideological and tactical divergence led to the eventual deterioration of the relationship between the two al-Qaedas. Zarqawi’s decision to plan and execute attacks against civilians and Shi’ite targets in the hopes of rousing a flood of violent sectarian sentiment was incompatible with al-Qaeda’s focus on attacking the “far enemy. (Fishman 2006) Despite criticism from al-Qaeda’s Ayman al-Zawahiri that such tactics would ultimately harm the jihadi movement, al-Qaeda was unable to pressure its affiliate to discontinue such attacks. Consequently, al-Qaeda disengaged with al-Qaeda in Iraq and sought other potential affiliates.

The idiosyncratic characteristics of a “dune” organization illustrated above partially explain why some observers continue to assert that al-Qaeda is “dead in the water” and incapable of advancing its cause. The conceptualization itself admits that al-Qaeda is not what it once was. The organizational elements exhibited by “dune organizations” are not amenable to large-scale, well-coordinated, and expensive attacks like 9/11. The fact that al-Qaeda is not what it once was does not mean, however, the al-Qaeda is nonexistent and consequently poses no threat to the U.S. and its allies.

Now that we have discussed the organizational progression of al-Qaeda, we may turn to the question of how al-Qaeda’s current organizational structure impacts its capacity to spread its ideology, recruit, and execute attacks. To answer this question, we turn to an analysis of al-Qaeda’s use of information technology prior to and following 9/11.

“Glocalizing” al-Qaeda: Dune on the Web

The importance of the Internet and other information technology to movements attempting to generate social change has been well-documented by many scholars and journalists.13 Political and social activists have employed the Internet by using services such as Facebook, Youtube, Yahoo! Groups, and Twitter. The advantages and opportunities presented by the Internet for a social movement, especially one that is threatened or restricted by powerful enemies, deserve elaboration. First, the Internet allows for the flowering of free speech and the discussion of culturally or politically taboo issues without the fear of censorship. (Brachman 2006) Anyone can set up a website and present their beliefs to the online community. Indeed, the emergence of online forums focused on specific themes has allowed website creators to foster a community of like-minded individuals who can present and debate arguments and provide support for one another on topics that would be considered non-mainstream. Furthermore, anyone

interested in the topic can access the forum, join the community, and engage in the discussion as long as the forum is unrestricted.

Second, the Internet allows for the consumer of Internet products to access these goods anonymously. Consequently, governments and other institutions have a difficult time tracing who has accessed what websites, and thus consumers of illicit or otherwise maligned products are able to access these goods without fear of detection or reprisal. Even if governments institute measures to decrease the anonymity of Internet usage, there are numerous ways to overcome these measures, such as employing proxies or IP spoofing.

Third, the Internet is accessible in most countries and media placed on the web can be accessed instantly. This means that a message posted by a single user in one location can be viewed instantly by millions of viewers who may reside in several distinct locations. The ability of the Internet to amplify a message, especially one that has been previously presented in another format, is truly astounding. What is even more striking is the ability of the Internet to broadcast the message of disorganized, endangered, or fringe movements that lack, or are prevented from obtaining, the resources that would allow them to successfully voice their opinions through more traditional mediums.\(^\text{14}\)

Prior to 9/11, al-Qaeda employed the Internet primarily for operational communication. One of the architects of 9/11, Khalid Sheikh Mohammed, used chat software to communicate with hijackers. Telephone services on the web were also used to plan attacks, including 9/11. (Wilson 2008) Websites discussing al-Qaeda’s vision were also present prior to 9/11. (Brachman 2006) Despite this usage of the Internet and other information technology, such exploitation was not of great importance to the al-Qaeda leadership prior to 9/11. The centralized nature of al-Qaeda and the ability of its leadership to further its ideological vision under the hierarchical and hub network approaches meant that traditional campaign efforts and political violence were sufficient avenues through which the organization could spread its “clash of civilizations” paradigm and accomplish other organizational goals, such as recruitment.\(^\text{15}\)

As noted above, the U.S. assault against al-Qaeda and the Taliban in Afghanistan led to drastic changes in the international arena and within al-Qaeda. Al-Qaeda was transformed into a “dune” organization that lacked the effective

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\(^{14}\) As Timothy L. Thomas notes, “The internet allows a person or group to appear to be larger or more important or threatening than they really are.” Thomas 2003, 121.

\(^{15}\) Kaldor provides an elaborate description of the use of violence by netforces: “In the new wars, mobilising people is the aim of the war effort; the point of the violence is not so much directed against the enemy; rather the aim is to expand the networks of extremism…The strategy is to gain political power through sowing fear and hatred, to create a climate of terror, to eliminate moderate voices and to defeat tolerance. The political ideologies of exclusive nationalism or religious communalism are generated through violence. It is generally assumed that extreme ideologies, based on exclusive identities - Serb nationalism, for example, or fundamentalist Islam - are the cause of war. Rather, the spread and strengthening of these ideologies are the consequence of war.” Kaldor 2001.
command and control and communication chains extant in its hierarchical and network incarnations. It was unable to maintain training camps or generate the high-impact, transnational violence that distinguished it from other terror groups. This organizational reconfiguration required a re-conceptualization by al-Qaeda’s leadership of the role “al-Qaeda the embattled organization” should and could play in securing al-Qaeda’s ideological vision. It also encouraged a reassessment of the organization’s tactics.

The result of this re-conceptualization was a reconsideration of the organization’s exploitation of the Internet and other information technology for ideological and recruitment purposes. Abu Musab al-Suri, an “intellectual mentor” to bin Laden, is responsible for the organization’s newfound appreciation for technology. (Brachman 2006) Al-Suri intended to:

…transfer the training to each house of each district in the village of every Muslim… making appropriate training materials available to more than a billion Muslims… Taking advantage of information technology like the Internet, Suri contends that anyone interested can access military and ideological training in any language, at any time, anywhere. Muslim homes, as envisioned by Suri’, not only become the new training camps, where families can recruit, educate and train, but also serve as staging grounds from which ideological adherents are able to consolidate their strength and wage terrorism. Further complicating matters, Suri articulates expanded opportunities [for] participation in jihad for the large numbers of Muslims who may agree with the ideology he advances but are reluctant to engage in acts of violence. (Downing and Meese 2006, emphasis add)

Al-Suri understood that the Internet provided the “dune” organization (which lacked any territorial institutional presence from which it could base its organizational operations) with the opportunity to continue recruitment at a global level, re-discover and re-network with the remnants of the organization that had survived, and “reconstitute [its] leadership.” (Brachman 2006) The Internet effectually provides al-Qaeda with an avenue through which it may overcome the organizational limitations it currently experiences and present its worldview without the censorship associated with other forms of media. Lacking a secure territorial base, the Internet now serves as al-Qaeda’s institutional base of operations. (Saltman 2008)

Al-Qaeda is now actively adhering to al-Suri’s vision of the role information technology can play in the global and mass indoctrination and mobilization of Muslims.16 It employs web forums where members can discuss relevant issues and provides links to manuals on various topics, including software packages and explosives. Videos of beheadings, sniper kills, and speeches, as well as other vehicles of propaganda such as online videogames that have strong jihadi

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16 For other specific examples of al-Qaeda’s use of the Internet (as well as other digital technology) for recruitment and other purposes, see Saltman 2008, p. 4-7; Brachman 2006, p. 152-162; and Thomas 2003.
sentiments, are continually uploaded and broadcasted. Al-Qaeda has also used the
Internet to spread scholarly writings that support its worldview and to discredit
figures and writings that criticize al-Qaeda’s position. It has also exploited the
Internet for fundraising, surveillance, and operational communication. (Saltman
2008, U.S. Congress House Permanent Select Committee on Intelligence 2006)
Timothy L. Thomas has labeled this array of online activities as “cyberplanning.”
According to Thomas (2003), cyberplanning “provides terrorists with anonymity,
command and control resources, and a host of other measures to coordinate and
integrate attack options…[it] refers to the digital coordination of an integrated plan
stretching across geographical boundaries that may or may not result in bloodshed.
It can include cyberterrorism as part of the overall plan.”

Al-Qaeda’s strategic exploitation of the Internet has resulted in the
realization of al-Suri’s vision of bringing jihad to the masses. Unable to conduct
large-scale violent operations as a result of tactical limitations and forced to rely on
independent-minded organizations that are apt to contradict its vision, al-Qaeda
has turned to the Internet to ensure the coherence of its ideology and network with
“lone wolves” residing both inside and outside the Muslim who are committed to
or interested in the furtherance of its principles. Anyone interested in joining the al-
Qaeda cause can access these web products and learn and understand the
ideological underpinnings of the organization’s efforts, discover operational tactics
such as how to form an autonomous cell or create explosives, learn about
propaganda and recruitment techniques, and acquire financial and other types of
assistance for terrorism-related activities from al-Qaeda. (U.S. Congress House
Permanent Select Committee on Intelligence 2006)

As we can see from the above discussion, Al-Qaeda’s exploitation of the
Internet is directly related to the “dune” organizational qualities it exhibits. Al-
Qaeda has strategically overcome its chaotic communication structure and minimal
command and control by exploiting the Internet and other digital technologies.
This exploitation and advance use of technology is one attribute that separates al-
Qaeda from other hierarchical and network terrorist organizations. Despite the
crippling of al-Qaida’s leadership and the weakness present in its organizational
structure, al-Qaida has adopted an entrepreneurial and opportunistic approach to
technology that provides for the “globalization” of its ideology. The jihad ideology espoused by al-Qaida is now embedded in online discussions that are
accessible by anyone interested in joining the cause. According to the Saudi

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17 Reports to Committees concerned with terrorism have explicitly acknowledged
al-Qaida’s use of technology for indoctrination purposes: “The increasing use of
technology, especially the use of the internet, by Islamist extremist groups has led
to a new phenomenon known as “glocal” issues, whereas global issues are now
becoming local issues. Usama bin Laden could not have his current, and
increasing level of success if Muslims did not believe their faith, brethren,
resources, and lands to be under attack by the United States and, more generally,
the West. The internet has helped al-Qaida reach Muslim communities around the
world with this very message.” U.S. Congress House Permanent Select Committee
on Intelligence 2006, 26.
researcher Khaled al-Faram, “[t]here are now about 5,600 Web sites spreading al Qaeda’s ideology worldwide, and 900 more are appearing each year.” (Hassan 2007)

Indeed, it is arguable that al-Qaeda’s ideology no longer requires the support of a vigorous centralized organization to maintain its relevance and translation into terrorism. The Internet, rather than a hierarchical or network organization, contributes to the proliferation of al-Qaeda’s “clash of civilization” paradigm. 18 Paul Eedle has succinctly made this point: “Whether bin Ladin or al Qaeda’s Egyptian theorist Ayman al-Zawahiri and their colleagues are on a mountain in the Hindu Kush or living with their beards shaved off in a suburb of Karachi no longer matters to the organization. They can inspire and guide a worldwide movement without physically meeting their followers—without knowing who they are.” (Thomas 2003)

**Implications of the E-naissance**

Most commentators agree that al-Qaeda has incorporated the Internet and other technologies into its propaganda, recruitment, and operations arsenal, but the extent to which “e-jihad” has translated into concrete recruitment and participation in attacks—that is, terror—is debatable. 19 What is clear, however, is that al-Qaeda’s activities on the web have directly contributed to the emergence of Muslims residing in the West contacting or attempting to contact al-Qaeda or one of its affiliates and executing or attempting to execute attacks under the banner of jihad:

Recent cases show clearly how al Qaeda's traveling, transnational ideology bridged the divide between class, space and recruitment techniques. It served as an attractive magnet for high-achievers like the Christmas day bomber, Nigeria's Umar Farouk AbdulMutallab, an engineering graduate of London University; Fort Hood's Maj. Nidal Malik Hasan; five integrated American Muslims from northern Virginia; and a Jordanian doctor, Humam al-Balawi, an informant-turned suicide bomber who killed seven U.S. intelligence agents on the CIA base in Khost province, near the Afghan-Pakistan border. What these individuals had in common was that they were radicalized online, on their own, while living an integrated life mostly in the West. (Gerges 2010)

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18 This is not to say that the ideology no longer requires some organizational or elite presence. In order to maintain the ideology’s unity, legitimate actors (leaders) must rebuke potential detractors who could possibly undermine the ideology’s coherence and appeal. There are other reasons why elite presence is still necessary for al-Qaeda, including direct training, the importance of charisma, the direction of activities and momentum, obtaining funding, etc.

19 An all-encompassing, accurate assessment of the success of al-Qaeda’s Internet campaign would require access to confidential agency documents and reports that detail foiled attempts to contact al-Qaeda after visiting an al-Qaeda website and complete information on foiled plots and plotters. Needless to say, such access is beyond the scope of the author.
The 7/7 bombings that targeted the London transportation system serve as an illustration of the passive impact of al-Qaeda’s Internet activities. Al-Qaeda provided no financial assistance to the terrorists that conducted the attack. Prior to the bombings, the 7/7 terrorists accessed and downloaded bomb-making instructions from an al-Qaeda website. (Bruno 2010) This was al-Qaeda’s sole contribution to the attack.

In spite of the cases presented above, the “networking” between Muslims in the West and al-Qaeda has been minimal and, in its current form, is unable to produce a well-coordinated, devastating attack on the magnitude of 9/11. (Blair 2010) The mass mobilization that al-Suri envisioned has not materialized. Of the nearly 43 million Muslims residing in the West, only a few have attempted to participate in an al-Qaeda sponsored or supported terrorist act. Whether this trend will continue, however, is unknown and likely dependent on a multitude of actors and geopolitical considerations. Nevertheless, it is important to note that the Internet continues to serve as a repository and amplifier for al-Qaeda’s ideology and an access point for individuals inside and outside the Muslim world seeking to join al-Qaeda’s efforts and engage in terrorism.

Conclusion

This paper has traced the organizational transformation of al-Qaeda. It has noted that al-Qaeda initially exhibited a hierarchical system and then a hub network approach. Following 9/11 and the U.S assault in Afghanistan, the environment in which al-Qaeda acted was significantly altered and resulted in drastic organizational evolution. Employing the concept of a “dune” organization to explain the unique and fluid organizational features al-Qaeda now exhibits, it was demonstrated that al-Qaeda no longer maintains a territorial-based institutional presence and lacks effective command and control and communication chains. In order to overcome these organizational limitations, al-Qaeda reconsidered its


21 For example, the increasing hostility towards Western Muslim populations by select politicians, fringe groups, and select media in Europe and now in the United States may factor into the success of al-Qaeda’s Internet campaign. If this trend continues, it is possible that some disaffected or disillusioned Muslims will turn to fundamentalists for consolation, inclusion, and purpose. Another issue worth considering is the U.S.’s fatigue towards the “War on Terror.” If the U.S. decides to disengage or drastically reduce its presence in Afghanistan and Pakistan prior to establishing a working police force and effective government that can counter militants, it is possible that al-Qaeda will re-emerge and claim victory over the U.S. Such a “victory” and the broadcasting of online propaganda that refers to this “victory” could boost al-Qaeda’s credentials and recruitment efforts.
use of the Internet in particular and information technology in general. Al-Qaeda has reacted to its limitations by establishing an institutional presence on the Internet by posting videos, forum messages, speeches, manuals, and other publications that support and legitimize its cause. This exploitation of information technology has led to the widespread and unfiltered transmission and reception of its ideological principles.

Although recent cases demonstrate the emergence of “lone wolves” radicalized by al-Qaeda’s Internet activities, the broader ramifications of al-Qaeda’s exploitation of the Internet and other technologies remain unclear.

References


