

Al-Qaeda: From ‘The Base’ to Global Database

A History Of Strategic Virtualisation

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Abstract

Al-Qaeda's retreat into the virtual world of networks has resulted in the mystification of its organisational structure. Studying the history of this organisation through the perspective of its communication practices can, however, clarify its structure. To understand Al-Qaeda now, this thesis asks: "If there are links between Al-Qaeda's usage of Converged Communication Technologies (CCTs) and changes within its organisational structure, then how may a history of Al-Qaeda help explain the significance of those links?" The research discovers that Al-Qaeda's decentralisation was made possible even before its timely harnessing of CCTs during the 1990s. Thereafter, Al-Qaeda's usage of these communication technologies only assisted in 'pushing' its already decentralised network into the virtual world. By charting Al-Qaeda's history of expanding decentralisation, this thesis identifies a clear and present danger: 'the Al-Qaeda effect' – wherein individuals encounter terrorism in virtual reality, before attempting to do some in bloody actuality.

Statement of Authorship

This thesis contains no material which has been accepted for the award of any other degree or diploma in any tertiary institution; and to the best of my knowledge and belief, contains no material previously published or written by another person, except when due reference is made in the text of the work.

.....

Vicnesh Nadarajah

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Voices From Virtuality

“Why do we ask for such individual terrorism? First because secret hierarchical organisations failed to attract Muslims. The youth fear joining such an organisation because if there is a mistake then the authorities will reach them. Second because we need to give the youth the chance to play a role without being part of an organisation [sic].”

Abu Musab al Suri
21st Century Al-Qaeda Strategist

“Some ways in which the brothers and sisters could be “internet mujahidin” is by contributing in one or more of the following ways: establishing discussion forums that offer a free, uncensored medium for posting information relating to jihad; establishing e-mail lists to share information with interested brothers and sisters; posting or e-mail jihad literature and news; and establishing websites to cover specific areas of jihad, such as mujahidin news, Muslim prisoners of war, and jihad literature.”

Anwar- Al Alwaqi
Online Cleric for Al-Qaeda

Introduction

The threat of Al-Qaeda today remains more persistent than ever despite the significant damage done to its base of power in Afghanistan. Even with the deaths and arrests of high-value operatives, the ideology of Al-Qaeda remains present. Nonetheless, Al-Qaeda is not directly responsible for the uptake of terrorist acts after the synchronised spectacle on September 11th, 2001 (hereafter referred to as 9/11). From the Bali bombings in 2002 to the attempted New York Times Square car bombing in 2010, the perpetrators of many terror incidents have been Al-Qaeda's loose affiliates with indirect links to the organisation.¹ These links, however, are forged less behind the walls of traditional radical mosques, and more in the contemporary virtual world of online forums.

Over the last decade, the migration of 'Al-Qaedaites' into the world of online networks, under the masquerade of pseudonyms and avatars, has challenged analysts to comprehend Al-Qaeda's organisational structure. Al-Qaeda's continual harnessing of these technologies, and its retreat into cyberspace after 9/11, has resulted in it being dubbed the "intangible enemy".² The proliferation of communication technologies and the effects of globalisation have arguably preserved the embattled Al-Qaeda. Alongside oily Kalashnikov rifles and dusty daggers, Al-Qaeda-inspired terrorists now carry an arsenal of weapons which include the latest Sony Vaio laptops and sophisticated mobile phones.

In short, Al-Qaeda seems to be undergoing a structural metamorphosis. From its inception in 1989, its organisational structure has ranged from a hierarchy akin to traditional military

¹ John Rollins, *Al Qaeda and Affiliates: Historical Perspective, Global Presence, and Implications for U.S Policy* (U.S: Congressional Research Service, February 5, 2010), 22-23; Philip Mudd, "Evaluating the Al-Qa'ida Threat to the U.S Homeland," *CTC Sentinel* 3, no. 8 (August 2010): 2.

² Gilles Kepel, *The War for Muslim Minds: Islam and the West* (London: Harvard University Press, 2004), 6.

institutions,³ to a decentralised terrorist network,⁴ to that of a business franchise funding an ideological movement.⁵ These impressions gleaned from an analysis of Al-Qaeda are more than semantics and metaphors – it signifies a fundamental problem in studying Al-Qaeda. This thesis however does not provide a definition of Al-Qaeda's constantly shifting structure. Instead, it attempts to understand Al-Qaeda through its communication practices. This approach promises to assist counter-terrorism thinkers to design relevant policies to tackle terror in the 21st century.

Academic work aimed at uncovering the mystery of Al-Qaeda's organisational structure, especially after 9/11, has been prolific. These studies, more often than not, track Al-Qaeda's organisational evolution from a hierarchy to a loose decentralised network. This evolution is not disputed here, but other literature has often neglected the genesis and implications of Al-Qaeda's precursor organisation - *Maktab- al-Khidmat* (MAK). Established in the 1980's, MAK took the form of a non-hierarchical organisation, almost anticipating Al-Qaeda's later internationalisation into the wider Islamic Diaspora. Understanding the transition from MAK to Al-Qaeda is a key to comprehending the decentralised structure of Al-Qaeda, especially its communication components.

The formation of Al-Qaeda's 'information committee' in 1988 and the shift to its *As Sahab* (The Clouds) media production unit in 2003 indicates the importance given to communication by the organisation.⁶ As the 20th century drew to a close, Al-Qaeda gradually minimised its use of traditional communication such as pay-phones and face-to-face interaction, embracing instead contemporary communication technologies such as chat-rooms and web forums; apparently seeing in those the lifeline of the organisation. Al-Qaeda has

³ Craig Whitlock, "The New Al-Qaeda Central," *The Washington Post*, September 9, 2007, sec. Middle East (Accessed on: 1 October, 2010).

⁴ Rohan Gunaratna, "The Post-Madrid Face of Al Qaeda," *The Washington Quarterly* 27, no. 3 (2004): 91-100.

⁵ Jason Burke, "Al-Qaeda," *Foreign Policy* 142 (2004): 18-26.

⁶ Philip Seib and Dana M. Janbek, *Global Terrorism and New Media: The Post Al-Qaeda Generation* (London: Routledge, 2010), 31.

learnt that the obstacles they face in the physical realm can be overcome in the virtual realm. Training camps, recruitment and propaganda efforts and fund-raising activities are also done in cyberspace - suggesting that Al-Qaeda is approaching virtualisation in its vision of uniting the *Ummah* - the global Muslim community - and re-establishing the lost Islamic caliphate.⁷

Henry Jenkins argues that, contrary to the assumption that newer forms of media (such as the World Wide Web) would displace older media technologies: “[T]he emerging convergence paradigm assumes that old and new media will interact in ever more complex ways”.⁸ In essence, CCTs are about the merging of various media platforms, where “old and new media collide... where the power of the media producer and the power of the media consumer interact in unpredictable ways”.⁹ Indeed, Al-Qaeda has benefited from the culture of convergence as this thesis will seek to tell. Hence, the contemporary technologies used by Al-Qaeda will be referred to here as Converged Communication Technologies (CCTs).

By examining the potent convergence of terrorism and technology within the context of Al-Qaeda, it will be argued that Al-Qaeda’s usage of CCTs did not initiate decentralisation efforts of the organisation but only assisted in ‘pushing’ the already decentralised network into the online world, resulting in an organisational form that is paradoxically somewhat ‘formless’ today. Additionally, it will be argued that this decentralisation not only exists in the physical world but also in the virtual world. Apparently, anyone who has been radicalised by Al-Qaeda’s ideology can be associated with it – the Al-Qaeda effect. No longer is there a need for a formal initiation process to be a member of Al-Qaeda.¹⁰

⁷ The caliphate refers to a state which is ruled solely by Islamic governance (based on the values of the Qur’an) and headed by a Caliph – the head of state. The last Islamic caliphate took the form of the Ottoman Empire that was abolished on March 3rd 1924. According to Rohan Gunaratna, Al-Qaeda aims to re-establish the caliphate.

⁸ Henry Jenkins, *Convergence Culture: Where Old And New Media Collide* (New York: NYU Press, 2006), 6.

⁹ *Ibid.*, 259-260.

¹⁰ Lawrence Wright, *The Looming Tower* (New York: Random House, 2006), 141. According to Wright, potential members who wanted to join Al-Qaeda had to fill membership forms in triplicate and swore loyalty to Osama Bin Laden before becoming part of the organisation.

In the process of documenting Al-Qaeda's transition into the virtual realm, it was necessary to investigate the extent to which technologies transformed the organisation. While a comprehensive study focusing on Al-Qaeda's use of various technologies is beyond the scope of this research, this thesis does evaluate how Al-Qaeda's usage of communication technologies shaped its organisational structure. In charting this history of structural change, a fresh perspective has been produced concerning a danger that survives, even thrives, "everywhere and nowhere".¹¹

In the following pages, the research will evaluate the relevant literature (pp. 5-19) and outline the methodology (pp. 20-22) used to answer the research question, before giving an account of Al-Qaeda's strategic virtualisation (pp. 23-55). It then concludes with a discussion of the significance of such virtualisation.

¹¹ Seib and Janbek, *Global Terrorism and New Media*, 23.

Literature Review

There is much literature on terrorism and ample research on terrorism's relationship with the media. However, because this thesis seeks to discern the relationship between Al-Qaeda's use of CCTs and its organisational structure, this chapter will present an evaluation of literature featuring three themes relevant to this relationship: 1) Terrorism and Al-Qaeda; 2) Social Network Analysis and Power Praxis; and, 3) Converged Communication Technologies and Al-Qaeda.

This literature review evaluates research collated from scholarly books, journals and academic articles, together with newspaper resources. The arguments here are gleaned from researchers in the fields of terrorism, social network analysis and converged communication technologies. They include: Bruce Hoffman, *Inside Terrorism*,¹² who addresses the complexity of defining terrorism; Marc Sageman, author of *Understanding Terror Networks*,¹³ who uses social network analysis to explore the resilience of terror networks; John Arquilla and David Ronfeldt, authors of *The Advent of Netwar*,¹⁴ who analyse the evolution of terrorist networks; and Duncan J. Watts, *Six degrees*,¹⁵ who explains the differences between a hierarchical organisational structure and a network.

¹² Bruce Hoffman, *Inside Terrorism* (New York: Columbia University Press, 2006).

¹³ Marc Sageman, *Understanding Terror Networks* (Pennsylvania: University of Pennsylvania Press, 2004).

¹⁴ John Arquilla and David F. Ronfeldt, *The Advent of Netwar* (Rand Corporation, 1996).

¹⁵ Duncan J. Watts, *Six Degrees: The Science of a Connected Age*, 1st ed. (New York: W. W. Norton & Company, 2003).

Terrorism and Al-Qaeda

The problem with defining a contested term such as 'terrorism' (in its various forms) has constantly posed an intricate challenge for terrorologists, academics, journalists, policy-makers, soldiers and politicians. Striving to identify an objective definition for this evolving phenomenon tends to render it more polysemous than precise.

The term 'terrorism' though heavily used after the 9/11 attacks has a genealogy deeper than that event. Several studies purposefully trace the etymology of the word to the 18th century French Revolution.¹⁶ During the Reign of Terror (1793-1794), a policy of '*TERREURISME*' - from Latin, *terrere* (to tremble) and French Suffix *isme* (to practice) was adopted by the Jacobin's Maximilien Robespierre, against perceived enemies of revolutionary French Democracy. "Terror", claimed Robespierre, "is nothing but prompt, severe, inflexible justice; it is therefore an emanation of virtue; it is not so much a specific principle as a consequence of the general principle of democracy applied to the homeland's most pressing needs".¹⁷ The term was subsequently adopted into the English dictionary in 1798 to describe terror as a policy.¹⁸

Current understanding, gleaned from the existing literature, suggests one reason why 'terrorism' is mired in a definitional morass, is that the label 'terrorist' is being politically constructed. Partisan definitions have led to 'Hezbollah' and the 'Irish Republic Army' being deemed terror organisations by countries such as Israel and United Kingdom respectively; while it appears this is not the case in the Far East or parts of Ireland.¹⁹ Nonetheless, Alex P

¹⁶ Andrew Sinclair, *An Anatomy of Terror: A History of Terrorism* (Palgrave Macmillan, 2003); Joseph S. Truman, *Communicating Terror- The Rhetorical Dimensions of Terrorism* (London: Sage Publications, 2003); Gabriel Weimann, *Terror on the Internet* (United States Institute of Peace Press, 2006).

¹⁷ Maximilien Robespierre, *Virtue And Terror*, trans. John Howe (London: Verso, 2007), 115.

¹⁸ Gérard Chaliand and Arnaud Blin, eds., *The History of Terrorism: From Antiquity to al Qaeda*, trans. Edward Schneider, Kathryn Pulver, and Jesse Browner (University of California Press, 2007).

¹⁹ Kathryn Westcott, "Who are Hezbollah?," *BBC*, April 4, 2002, sec. Middle East, 14, <http://news.bbc.co.uk/2/hi/1908671.stm> (Accessed on: May 6th, 2010); Carol Elzain, "Modern Islamic

Schmidt - who worked for the United Nations for a brief period – in consultation with 50 scholars defined the term 'terrorism' as:

[A]n anxiety-inspiring method of repeated violent action, employed by (semi-) clandestine individual, group, or state actors, for idiosyncratic, criminal, or political reasons, whereby — in contrast to assassination — the direct targets of violence are not the main targets. The immediate human victims of violence are generally chosen randomly (targets of opportunity) or selectively (representative or symbolic targets) from a target population, and serve as message generators. Threat- and violence-based communication processes between terrorist (organisation), (imperiled) victims, and main targets are used to manipulate the main target (audience(s)), turning it into a target of terror, a target of demands, or a target of attention, depending on whether intimidation, coercion, or propaganda is primarily sought.²⁰

Though his definition has been widely cited by academics, other studies have suggested that an objective definition of terrorism is an unachievable feat.²¹ Walter Laqueur, a well known critic against a general definition, asserts that: “[E]ven if there were an objective, value free definition of terrorism, covering all its important aspects and features, it would still be rejected by some for ideological reasons”.²² Thus, terrorism is contingent on the perspective of the person or institution defining it.

Mass media representations of 'international terrorism' (especially after the 1960s) and the usage of frames like the binary of 'Good/evil' have also contributed to the definitional dilemma.²³ Bruce Hoffman's analysis of news articles from the *Washington Post* and the *New York Times* describing the Beslan School Siege in 2004, revealed a variety of frames such as

Terrorism and Jihad” (Occasional Series, Australia: University of Melbourne, 2008); Simon Jenkins, “Be very afraid - we are being fleeced by purveyors of fear,” *Guardian Weekly*, October 1, 2010, 14; Jeff Lewis, *Language Wars: The Role of Media and Culture in Global Terror and Political Violence* (London: Pluto Press, 2005).

²⁰ Alex P. Schmid, “The response problem as a definition problem,” *Terrorism and Political Violence* 4, no. 4 (1992): 8.

²¹ Walter Laqueur, *The Age of Terrorism* (London: Weidenfeld and Nicolson, 1987); Hoffman, *Inside Terrorism*; Jay M. Shafritz, E. F. Gibbons, and Gregory E. J. Scott, *Almanac of Modern Terrorism* (New York: Facts on File, 1991).

²² Laqueur, *The Age of Terrorism*, 149.

²³ Pippa Norris and Montague Kern, *Framing Terrorism: The News Media, The Government, and The Public* (New York: Routledge, 2003); Robert M. Entman, “Framing: Towards Clarification of a Fractured Paradigm,” in *McQuail's reader in mass communication theory* (London: Sage Publications Ltd, 2002); Lewis, *Language wars*.

rebels, fighters, separatists and insurgents were used to describe the Chechen perpetrators of the event.²⁴ Although Beslan took place after 9/11, its framing underlines the problem of definition. The polysemous property of the expression, 'terrorism', seems unavoidable; although a common element may be the pejorative nature of the term.²⁵

The country that has been most disarrayed in defining terrorism is the United States (US) which ironically, is the nation at the forefront of the fight against terrorism. Gilles Keppel accurately traced this shortcoming to shortly after 9/11 when President Bush established the modernistic Specially Designated Global Terrorist (SDGT) framework to block terrorist funds (under Executive Order 13224).²⁶ A web of federal departments and terrorism lists soon followed such as the National Counterterrorism Centre (NCC); the US State department's Foreign Terrorist Organisations (FTOs); the Federal Bureau of Investigation Terrorist Screening Database; Terrorist Exclusion List (TEL); Terrorist Identities Datamart Environment (TIDE); and the No-Fly list. Each of these frameworks came with various classifications of terrorism, leading to individuals and organisations being designated as a threat by one department and not by another.²⁷

Furthermore, throughout the definitional debate, neo-conservatives in Washington took the meaning of *Al-Qaeda* (Arabic for 'The Base') too literally.²⁸ This misunderstanding became the cornerstone for the 'Global War on Terror' as coalition forces proceeded with the invasion of Afghanistan, where an Al-Qaeda base was located. Keppel discerningly contends that, *prior to the invasion*, Al-Qaeda had undergone an evolution, with the name becoming "a

²⁴ Hoffman, *Inside Terrorism*, 30. On the 1st of September 2004, Chechen terrorists hijacked a school in Beslan, North Ossetia and took hostage of more than 1000 people. The death toll after the three-day standoff stood at about 360.

²⁵ Hoffman, *Inside Terrorism*.

²⁶ Keppel, *The war for Muslim minds*, 113; "Executive Order 13224," *U.S. Department of State*, September 23, 2001, <http://www.state.gov/s/ct/rls/other/des/122570.htm> (Accessed on: 5th October, 2010).

²⁷ For instance, Umar Farouk Abdulmutallab dubbed the Christmas Day bomber, was placed under TIDE but not on the No-Fly list. He was subsequently allowed to board Northwest Airlines flight 253 where he attempted to bomb the plane on 24th December 2009.

²⁸ Keppel, *The war for Muslim minds*.

metaphor for the dispersal of those fighters around the globe and for the web of communication links that held them together.”²⁹ Through an electronic metamorphosis (E.M), Al-Qaeda evolved into a ‘Database’. However, as there is a dearth of literature addressing Al-Qaeda’s gradual paradigm shift into the virtual realm, this thesis will chart Al-Qaeda’s E.M. The research will trace Al-Qaeda’s migration from their territorial caves in Tora Bora to the virtual world of websites and chat-rooms. Thus, it is necessary to now evaluate the literature relating to organisational networks and struggles for power.

Social Network Analysis and Power Praxis

There are several published studies describing social networks and the patterns of interaction among members or actors within such networks. The result of academics studying network analysis from a variety of fields has led to multiple definitions of the term ‘network’. For instance, early work by researcher Jeremy Boissevain found networks to be an analytical framework comprised of almost anything including individuals, groups, buildings, and nation-states, “connected by lines”.³⁰ His definition implies that networks should be viewed as a rigid set of structures. However, as technology and research in the field progresses, it is apparent that networks are in constant evolution.³¹ This point has been reinforced by terror-psychiatrist Marc Sageman who notes that terrorist networks are also constantly evolving and do not remain static.³²

More recent studies on the term take a quantitative approach via graphs consisting of formal and informal interactions between various individuals.³³ Duncan J. Watts, however, challenges this approach as being too complex and, defines ‘network’ as “nothing more than

²⁹ Ibid., 115.

³⁰ Jeremy Boissevain, “Network Analysis: A Reappraisal,” *Current Anthropology* 20, no. 2 (June 1979): 392.

³¹ Watts, *Six Degrees*.

³² Sageman, *Understanding Terror Networks*.

³³ Jeroen Bruggeman, *Social Networks: An Introduction* (New York: Routledge, 2008).

a collection of objects connected to each other in some fashion".³⁴ These objects also known as nodes, he explains, can be thought of as the symbolical representation of individuals or terrorists in the network.³⁵ Other scholars in network analysis have noted that modern terrorism relies on two disparate structures: Hierarchy and Network.³⁶ Each has its strengths and weaknesses and will be explored in the following section.

Studies describing the hierarchical structure of an organisation indicate that the dictatorial 'top-down' approach is a formal centralised system from whence all power, authority and decision comes.³⁷ Here, information and instructions are only disseminated hierarchically from the epicentre - found at the top - and flow vertically downwards but not vice-versa. Research by Shaul Mishal and Maoz Rosenthal, both of whom use the hierarchy model to describe terrorist organisations, notes that elements within these organisations (including the actors and their social identities) are fixed, constant and rigid.³⁸ Boundaries exist between upper and lower actors. It is this inflexibility that has led many academics and criminologists to challenge the usefulness of the hierarchical structure within terror groups and clandestine organisations.³⁹ The decline (2003-2009) of the hierarchical Jemmah Islamiyah terror network is a fine example. The organisation which was Al-Qaeda's main affiliate in South-East Asia, featured commands and lines of communication from the top.⁴⁰ The arrests and deaths of key members in the hierarchy resulted in the ineffectiveness of the organisation, and its collapse.

³⁴ Watts, *Six Degrees*, 27.

³⁵ Watts, *Six Degrees*.

³⁶ Victor Asal and R. Karl Rethemeyer, "Researching Terrorist Networks," *Journal Of Security Education* 1, no. 4 (2006): 65-74; Sageman, *Understanding Terror Networks*; Brian A. Jackson, "Groups, Networks, or Movements: A Command-and-Control-Driven Approach to Classifying Terrorist Organizations and Its Application to Al Qaeda," *Studies in Conflict & Terrorism* 29, no. 3 (2006): 241-262.

³⁷ Bruggeman, *Social networks*; Watts, *Six Degrees*.

³⁸ Shaul Mishal and Maoz Rosenthal, "Al Qaeda as a Dune Organization: Toward a Typology of Islamic Terrorist Organizations," *Studies in Conflict & Terrorism* 28 (2005): 275-293.

³⁹ Arquilla and Ronfeldt, *The Advent of Netwar*; John Robb, *Brave New War* (New Jersey: John Wiley and Sons, 2008); Sageman, *Understanding Terror Networks*.

⁴⁰ Bruce Vaughn et al., *Terrorism in Southeast Asia*, CRS Report for Congress (Congressional Research Service, February 7, 2005), 8-10.

Although the weakness of a centralised system may seem apparent and prove to be detrimental to an organisation, it cannot be denied that there are positive aspects of such a structure. Work by Peter Blau and Richard Scott attributes the success of hierarchical organisations (such as political and military institutions) to the explicit command and control and micromanagement by the upper actors.⁴¹ Similarly, resistance movements such as the Liberation Tigers of Tamil Eelam (LTTE) in Sri Lanka, have had considerable success by maintaining a centralised mode of control.⁴²

To clarify via contrast: The heterarchy (as opposed to hierarchy) is a flat, flexible and robust network, with the absence of a central figure.⁴³ Nonetheless, scholars have indicated that even with the lack of central authority, coherency is achievable.⁴⁴ In this type of network, actors are self-driven, watch over their respective performances and make their own corrective actions (during failures) without the need to consult management.⁴⁵ Decision-making is dispersed across the actors in the network. One interesting characteristic of such a network is the ease with which its actors are able to break away and re-appear as a sub-network if necessary. Early research in the 1990's by the RAND Corporation - a leading think-tank organisation in the United States - discovered, in the information age, terrorist groups and other clandestine organisations (such as drug cartels and organised syndicates) are moving from a hierarchical system of operation to a more decentralised network - e.g. Hamas in the Middle East and Zapatistas Army in Mexico.⁴⁶ John Arquilla and David Ronfeldt, researchers with RAND, coined the term 'Netwar' - to describe this new mode of conflict consisting of

⁴¹ Peter Michael Blau and W. Richard Scott, *Formal Organizations: A Comparative Approach* (Stanford University Press, 2003).

⁴² Roger Mac Ginty, "Social Network Analysis and Counterinsurgency: A Counterproductive Strategy?," *Critical Studies on Terrorism* 3, no. 2 (2010): 209.

⁴³ Arquilla and Ronfeldt, *The Advent of Netwar*. According to Arquilla and Ronfeldt, a heterarchy network is one which is acephalous - headless - having no leader or polycephalous - hydra-headed - having many leaders.

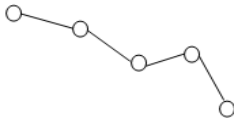
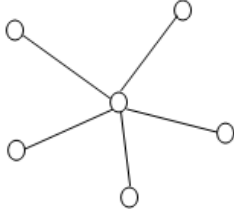
⁴⁴ Watts, *Six Degrees*; Klenke Karin, "Keeping Control in Nonhierarchical Organisations," *Business, Second Edition: The Ultimate Resource* (2006): 231-232.

⁴⁵ Karin, "Business, Second Edition."

⁴⁶ Michele Zanini, "Middle Eastern Terrorism and Netwar," *Studies in Conflict & Terrorism* 22, no. 3 (1999): 5; Arquilla and Ronfeldt, *The Advent of Netwar*, 5.

“dispersed, often small groups who agree to communicate, coordinate, and act in an internetted manner, often without a precise central leadership or headquarters”.⁴⁷ Since their analysis proves useful towards this thesis, the researcher will here present it in greater detail.

Note the three covert network structures (in contrast to the traditional hierarchies) which they argued contemporary terrorist cells are informed by:

<p>The chain network, where people, goods or information move along a line of contacts that are separated from each other and where end-to-end communication must travel through the intermediate nodes</p>	
<p>The hub-and-spoke network, where a set of actors are tied to a central (but not hierarchical) node or actor, and must go through that node to communicate and coordinate with each other.</p>	

⁴⁷ Arquilla and Ronfeldt, *The Advent of Netwar*, 5.

The all-**channel** network where in a collaborative network, everybody is connected to everybody else.

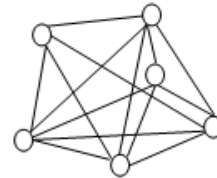


Figure 1

Source of words: *The Advent of Netwar (1996), Page 49*

Models by: Vicnesh Nadarajah (2010), RMIT University

Given the literature on decentralisation, one could assume that at least one of these models reflects the current structure of Al-Qaeda. However, the models were based upon data collected before the formularisation of the 'power law' theory and hence, may only be useful in analysing small clandestine groups which have a fixed set of actors. The 'power law' theory states that networks obey two factors: *constant growth and preferential attachment* – elements neglected by the earlier RAND research.⁴⁸ This problem eventually brought forth a new network model known as the 'scale-free' network as presented in Figure 2.

⁴⁸ Albert-László Barabási, *Linked* (New York: Penguin Group, 2002).

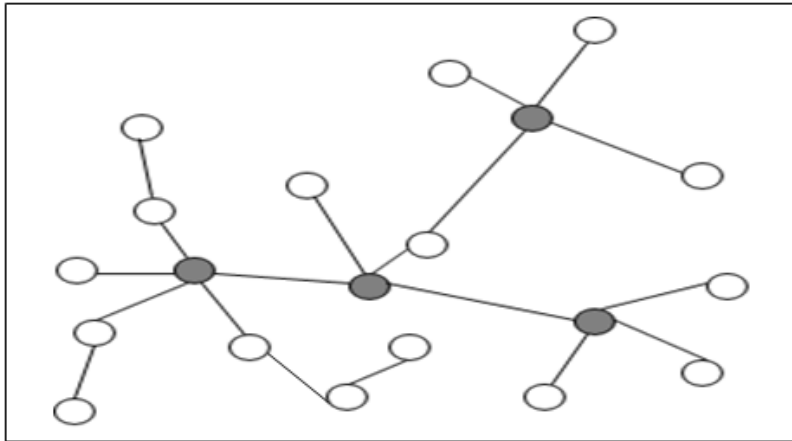


Figure 2: Hubs in a scale-free network (highlighted nodes) are free to link themselves to other isolated nodes

Model by: Vicnesh Nadarajah, (2010), RMIT University

Here, nodes in a 'scale-free' network are free to link themselves with other nodes, without any restrictions – creating, theoretically, an infinite number of links. In applying the scale-free theory to terror networks, Sageman notes that terrorist networks operating on a network structure will constantly expand (demonstrating *constant growth*) through the more popular actors.⁴⁹ The more popular actors bearing multiple links, known as hubs (highlighted nodes, see in Figure 2), will in turn self-connect themselves to other isolated actors and the process continues.⁵⁰ Hubs are important elements in a network as all vital communication goes through them. The removal of random nodes will not make a network vulnerable to failure but the removal of enough hubs, through good policing, would eventually cause a network to be inoperable.⁵¹ Identifying these hubs in a terrorist network is thus crucial in counterterrorism work. Furthermore, expansion in terror networks is not a random process (as Arquilla & Ronfeldt appears to suggest) but instead, happens through friendship, kinship or other forms of relationship among terrorists (demonstrating *preferential attachment*).⁵²

⁴⁹ Sageman, *Understanding Terror Networks*.

⁵⁰ *Ibid.*

⁵¹ *Ibid.*, 141.

⁵² *Ibid.*, 139-140.

Although the earlier RAND study may have its limitations, the models, in particular the 'hub-and-spoke' structure prove useful in explaining Al-Qaeda's initial organisational structure in Chapter One (see pp. 23-29). With the rise of CCTs we note how the decentralised scale-free network is being consolidated to the operational advantage of groups such as Al-Qaeda. Thus, it is essential to now evaluate literature surrounding CCTs and Al-Qaeda's decentralisation into the virtual realm.

Converged Communication Technologies and Al-Qaeda

Technological advancement has provided the means for traditional and contemporary communication technologies to converge - enhancing, among other things, terrorist capabilities. Indeed, in the three history chapters of this thesis, an analysis that follows of how Al-Qaeda operatives have benefited from the effects of convergence by exploiting CCTs will be provided.

It is clear that CCTs are being utilised by terrorist organisations for various purposes. Post 9/11 research suggests these usages include (but are not limited to): propaganda and persuasion for recruitment;⁵³ fund-raising;⁵⁴ forgery and deception;⁵⁵ reconnaissance and surveillance;⁵⁶ and more notably for networking and communication.⁵⁷ Al-Qaeda has been involved in all of these usages. There is also evidence to suggest that Al-Qaeda can be distinguished from other terror groups by its skills in converging both older and contemporary media platforms (as outlined in Chapter Three). Their proficiency in exploiting

⁵³ Hoffman, *Inside Terrorism*, 214.

⁵⁴ Weimann, *Terror on the Internet*, 134.

⁵⁵ Abdel B. Atwan, *The Secret History of Al Qaeda* (California: University of California Press, 2006), 123-132.

⁵⁶ Bruce Hoffman, *The Use of the Internet by Islamic Extremists* (Testimony presented to the House Permanent Select Committee on Intelligence, 2006), 12.

⁵⁷ Carsten Bockstette, "Jihadist Terrorist Use of Strategic Communication Management Techniques," *George C. Marshall European Center for Security Studies*, no. 20 (December 2008): 1-28.

various communication technologies can also be dated to the formation of its 'information' committee in 1988 which was tasked to oversee all media productions.⁵⁸ Additionally, the organisation's official guidebook - Al-Qaeda manual (as analysed in Chapter One) provides some valuable insights into the communication practices used to sustain the organisation.⁵⁹

It would be beyond the scope of this review to critically evaluate the differences between CCTs and older forms of communication technologies. However, because both media and terrorism scholars have argued that the enhanced level of *interactivity* that CCTs possesses is one of the defining properties of such technologies, an evaluation on the 'interactivity' phenomenon is necessary.⁶⁰

Despite the ongoing debate on defining interactivity, it is apparent that the 'real time' exchange of information between individuals seems to be the element that characterises the phenomenon. Even before the advent of more advanced forms of CCTs, such as satellite phones and e-mails, Ronald Rice and Frederick Williams defined interactive media as immediate two-way communication exchanges; highlighting the level of engagement at both ends of the communication process.⁶¹ Nearly a decade later, interactivity was defined as "the extent to which users can participate in modifying the form and content of a mediated environment in real time".⁶² More recently, Lieh Lievrouw and Sonia Livingstone argues that

⁵⁸ Staff Statement # 15, *National Commission On Terrorist Attacks Upon The United States: 12th Public Hearing: Overview of the Enemy*, 2004, www.fas.org/irp/congress/2004_rpt/staff_statement_15.pdf (Accessed on: June 3rd, 2010).

⁵⁹ Also known as the "Declaration of Jihad Against the Country's Tyrants, Military Series", the manual was found in a raid conducted by the Manchester Metropolitan Police (United Kingdom) in the computer of an Al-Qaeda operative. According to Rohan Gunaratna, the manual was written by a senior operative and was utilised exclusively for major Al-Qaeda operations.

⁶⁰ Terry Flew, *New media- An Introduction*, 2nd ed. (Oxford University Press, 2005); Edward.J Downes and Sally.J Mcmillan, "Defining Interactivity: A Qualitative Identification of Key Dimensions," *New Media Society* 2, no. 2 (June 1, 2000): 157-179; Seib and Janbek, *Global Terrorism and New Media*.

⁶¹ Ronald E. Rice and Frederick Williams, "Theories Old and New: The Study of New Media," in *The New Media: Communication, Research, and Technology*, R.E. Rice. (Sage Publications, 1984).

⁶² Jonathan Steur, "Defining Virtual Reality: Dimensions Determining Telepresence," *Journal of Communication* 42, no. 4 (1992): 84.

the immediacy level and enhanced responsiveness through contemporary technologies, are defining elements of the interactivity phenomenon.⁶³ Thus, all definitions within the last two decades highlight the importance of real-time communication in interactive media, and serve to underline the operational and propagandist advantages of interactivity for terrorist organisations such as Al-Qaeda.

Indeed, Sageman suggests in his subsequent book *Leaderless Jihad*, that it is the more interactive media platforms, such as chat-rooms and web based forums as opposed to static websites, where radicalisation of individuals occurs.⁶⁴ These platforms allow individuals to form 'virtual communities'. Sageman refers to these communities as the "utopian ummah", where disparity between individuals is absent but instead, "everyone is equal and cares for everyone else".⁶⁵ Echoing Sageman is Abdel Bari Atwan who suggests that individuals can immediately be associated with the *Ummah*, and ultimately link themselves virtually to Al-Qaeda, by being a member of these CCTs. He attributes the survival of Al-Qaeda today to the formation of these online communities.⁶⁶

The importance given to virtuality by Al-Qaeda thus poses the question of whether its physical reality is still relevant. In an interview with journalist Taysir Alluni in 2001, and in other published statements, Al-Qaeda's leader Osama Bin Laden (hereafter referred to as Bin Laden) indicated that the organisation's primary concern is to unite the *Ummah* and to re-establish the righteous global caliphate - a borderless, Islamic jurisdiction.⁶⁷ Perhaps, the

⁶³ Leah A. Lievrouw and Sonia Livingstone, "Introduction to Updated Student Edition," in *The Handbook Of New Media*, Student Edition. (London: SAGE Publications, 2006), 7.

⁶⁴ Marc Sageman, *Leaderless Jihad* (Pennsylvania: University of Pennsylvania Press, 2008).

⁶⁵ *Ibid.*, 117.

⁶⁶ Atwan, *The Secret History of Al Qaeda*, 140-141.

⁶⁷ Bruce Lawrence, ed., *Messages To The World: The Statements of Osama Bin Laden*, trans. Howarth (Verso, 2005), 121, 194-195. According to former US Secretary of Defence Donald Rumsfeld, the geographical location of the caliphate will stretch from Africa to Asia and will also consist of nations from every continent. In this caliphate, national boundaries will be non-existent and replaced by a single "global extremist empire". See

concept of creating a pan-Islamic caliphate is now regarded by Al-Qaeda as more ideal than real. However, with CCTs providing the “anonymous means through which the movement [Al-Qaeda] can continue to communicate with its fighters, followers, sympathisers and supporters worldwide”, it appears that the *Ummah* is united and that the ancient caliphate may exist virtually.⁶⁸ As this thesis presents a history of Al-Qaeda’s strategic virtualisation (SV), the virtual caliphate could be analysed as one corollary of SV. There are, however, SV implications of more immediate concern, such as the way it has apparently led to a ‘*Leaderless Jihad*’ – involving ‘do-it-yourself’ terrorists. A history of Al-Qaeda’s SV is required now because the knowledge it promises is missing from the current literature.

Research Gap

From the perspective of this inquiry, there are two main research gaps in the literature. Firstly, there is inadequate scholarship concerning Al-Qaeda’s shift from a hierarchical organisation to a decentralised network, and the reason[s] for this transition. Secondly, there is little research on the extent to which everyday aspects of CCTs such as chat-rooms and web-forums are needed by Al-Qaeda to attain decentralised terrorist networks.

Furthermore, there are diverging judgements on the intellectual and technological capabilities of Al-Qaeda. For instance, Sageman notes there is no “central intent” to shift terrorist modes of communication from the physical to the virtual realm; but rather, that this has occurred coincidentally via the spontaneous proliferation of the Internet.⁶⁹ Jarret Brachman, however, indicates that Al-Qaeda’s technological use has been strategically planned – to invoke

Donald H. Rumsfeld, “Secretary Rumsfeld's Remarks at the Munich Conference on Security Policy,” February 4, 2006, para. 14, <http://www.defense.gov/transcripts/transcript.aspx?transcriptid=926> (Accessed on: 4th September, 2010).

⁶⁸ Hoffman, *Inside Terrorism*, 214.

⁶⁹ Sageman, *Leaderless Jihad*, 121.

awareness in the *Ummah* to join the ongoing resistance.⁷⁰ In addition, studies by Paul Cruickshank and Mohannad Hage Ali based on original works published by Al-Qaeda operative, Abu Musab Al Suri, indicate that attaining decentralisation has been a meticulously calculated tactic.⁷¹

These gaps and disagreements led to the formulation of the following Research Question:

If there are links between Al-Qaeda's use of Converged Communication Technologies and changes within its organisational structure, then how may a history of Al-Qaeda help explain the significance of those links?

⁷⁰ Jarret Brachman, "High-Tech Terror: Al-Qaeda's Use of New Technology," *Fletcher Forum of World Affairs* 30, no. 2 (2006): 149-164.

⁷¹ Paul Cruickshank and Mohannad Hage Ali, "Abu Musab Al Suri: Architect of the New Al Qaeda," *Studies in Conflict & Terrorism* 30, no. 1 (2007): 1-14.

Methodology

In light of the preceding literature review and the identified research gaps, this section will outline the methodology used to answer the Research Question:

If there are links between Al-Qaeda's use of Converged Communication Technologies and changes within its organisational structure, then how may a history of Al-Qaeda help explain the significance of those links?

Since this question concerns the history of Al-Qaeda, a form of historiography (analysing historical evidence based on both primary and secondary sources), will be used to answer it. In order to investigate the nexus between Al-Qaeda's use of CCTs and changes within its organisational structure, relevant and adequate historical information was collected. Given the sensitive area of the research and the clandestine nature of terrorists' organisations, gathering this evidence proved to be a challenge. Being unable to get direct access to terrorists, or research them in their natural environment, has meant that the only research material available was textual - gleaned from the public-domain.

This material can be divided into two categories: primary sources and secondary sources. Primary sources in this research include: court and legal documents; declassified reports on Al-Qaeda by various security agencies; transcripts of speeches by policymakers; data confiscated from terrorist computers; and the translated pronouncements of Bin Laden. To exclusively base this study on primary sources was potentially possible, but would neglect the scholarly, in-depth analysis of such sources by established intellectuals. Hence, secondary sources and scholarly research was also used. These secondary sources include books, journal

articles and media reports relating to the history of Al-Qaeda. When analysing this material, the researcher compared and contrasted various sources - to discern patterns of evidential collaboration.

In historiography, a truthful interpretation of data is sought – a ‘true story’ that, “shows the movement of people and events through time... offer[ing] analysis and description.”⁷² Ann Curthoys and Ann McGrath propose a ‘chronology and theme’ strategy in history writing.⁷³ Here, collected data is arranged first in chronological order and then split into themes and reconstructed as an analytical narrative (to answer the research question). Thus, for this thesis the data collected was first sorted into three different time frames: 1988-1995, 1996-2001 and 2001-2010. Data collated for each time frame was then divided thematically into: 1) Organisational Structure and 2) Communication Usage. The first theme includes information relating to the organisational structure of Al-Qaeda and possible reasons for the change in structure. The second theme concerns the communication practices utilised to sustain Al-Qaeda during 1988-2010. Since the data was often cross-thematic, it was possible to weave threads from both themes into a vivid history of Al-Qaeda’s deliberate virtualisation. By analysing manifestation of these two themes in each time frame, the thesis charted a history of organisational change within Al-Qaeda.

Thus, Chapter One documents Al-Qaeda in its formative years and analyses how the organisation was operating on a two-fold system – i.e. a core group functioned as a hierarchy while the external organisation worked as a hub-and-spoke network through the MAK offices.

⁷² Ann Curthoys and Ann McGrath, *How to write History that people want to read* (Sydney: University of New South Wales Press, 2009), 140.

⁷³ *Ibid.*, 141.

Chapter Two focuses on the technological 'boom' years of Al-Qaeda between 1996-2001 and analyses how CCTs (such as satellite phones and e-mails) were slowly incorporated into the organisation, shaping the organisational structure that was appeared thereafter.

Chapter Three charts the organisational structure of Al-Qaeda after the 9/11 including the function of CCTs in the network today (2010). Here, the contemporary communication and networking technology used by operatives is assessed; enabling the research to highlight the significance of CCT-based terrorism.

Chapter 1: Genesis Of An Enemy (1988-1995)

After America's iconic economic and military landmarks were attacked on 9/11, the US Congressional Research Service released a report on September 13th 2001, acknowledging the presence of Al-Qaeda in over thirty-four nations globally.⁷⁴ Al-Qaeda, for the first time after the attacks, was identified as a global entity, with its versatility apparent in its trans-national cell structure. Prior to the Holy Tuesday⁷⁵ operation, Al-Qaeda was largely unheard of, but its cells were clandestinely operating anyway.

In this, Bin Laden was not the chief architect of Al-Qaeda, but a great tactician who used circumstances which favoured him. Bin Laden was the protégé of Abdullah Yusuf Azzam (hereafter referred to as Azzam), a Palestinian-Islamic scholar, who in 1984 set up the Maktab al-Khidmat (MAK) - also known as the Afghan Services Bureau.⁷⁶ This precursor organisation of Al-Qaeda was an anti-Soviet resistance movement, with offices set-up globally, and whose objective was to raise funds and recruit members to fight various ongoing wars.⁷⁷ Bin Laden was Azzam's deputy-in-command and was a leader in the fight against the Soviets in Afghanistan.⁷⁸

Azzam's extensive travel to various nations in the late 1980s assisted MAK, and later Al-Qaeda, to globalise. During his whirlwind tours, Azzam preached the violent aspect of *Jihad*⁷⁹ and martyrdom in the wider Islamic Diaspora. This drew even brilliant young

⁷⁴ Kenneth Katzman, *Terrorism: Near Eastern Groups and State Sponsors, 2001*, CRS Report for Congress (Congressional Research Service, September 10, 2010). According to Katzman, although the report was dated on the 10th of September 2001, it was made available to public on September 13th, 2001.

⁷⁵ The Holy Tuesday Operation was the secret code name used by the nineteen hijackers to describe the 9/11 attacks.

⁷⁶ Peter L. Bergen, *Holy war, Inc. Inside the Secret World of Osama bin Laden* (New York: Simon & Schuster, 2002), 54.

⁷⁷ Rohan Gunaratna, *Inside Al Qaeda: Global Network of Terror* (New York: Berkley Publishing Group, 2003).

⁷⁸ Wright, *The Looming Tower*, 115-120.

⁷⁹ The Qur'an (the religious book of Islam) mentions the term '*Jihad*' 33 different times in various context resulting in the term being a contentious issue among Islamic scholars themselves. However, in essence, the term emphasizes the effort undertaken by a Muslim to achieve social, spiritual, physical and economic

academics from universities in the US and the *Mujahiddin*⁸⁰ fighters within the Pakistani camps.⁸¹ His sermons enabled him to establish offices, under the guise of charitable organisations in over thirty-five countries in the Americas, the Middle-East and Europe.⁸²

Particular relevance for this research is Azzam's hub-and-spoke organisational structure of his 'secret' offices (see Figure 3 for an example). The headquarters in each country were situated around, or within, the premises of a mosque, and in turn was connected to other peripheral MAK offices throughout the region. These offices operated without any central leadership or oversight because Azzam travelled frequently and Bin Laden remained in Afghanistan.

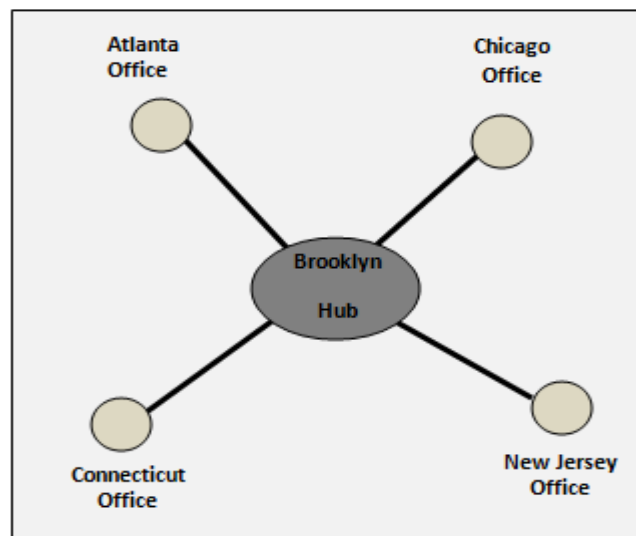


Figure 3: Example of Hub-and-Spoke organisational structure of the MAK offices in the US headed by the Brooklyn Hub.

Model by: Vicnesh Nadarajah, (2010), RMIT University

goodness. Azzam however, preached a violent notion of *Jihad* and encouraged Muslims all over the world to take arms in the fight against the soviets.

⁸⁰ Holy warriors or fighters in a war.

⁸¹ Kepel, *The war for Muslim minds*; Wright, *The Looming Tower*.

⁸² Jimmy Gurulé, *Unfunding terror: The Legal Response to the Financing of Global Terrorism* (Edward Elgar Publishing, 2008), 29; Gunaratna, *Inside Al Qaeda*, 5.

For instance, in the United States which Azzam visited every year, there were MAK branches in cities across twenty-six states.⁸³ They included Chicago, Atlanta, New Jersey and Connecticut as linked to the hub in Brooklyn (Figure 3). This hub was more popularly known, to its patrons, as the 'Al-Khifa Refugee Centre'.⁸⁴ Located above a Chinese restaurant on New York's Atlantic Avenue, *Al-Khifa* was frequently visited by Azzam who would also stop over at the nearby mosque to deliver his radical teachings. Peter Bergen who interviewed Bin Laden personally in 1997, described the Brooklyn headquarters as a "hub" for the various outer offices in the US.⁸⁵ Azzam established similar hubs at Zagreb in Croatia and at Peshawar in Pakistan. The Zagreb hub acted as a financial conduit and a recruitment centre for fighters to be sent to the Bosnia war.⁸⁶

After years of close collaboration, a number of tactical differences, including the use of violence, caused Bin Laden to part from his mentor in 1988, resulting in Bin Laden relocating to Peshawar in Pakistan. It was there that Bin Laden formed his own group, independent of the MAK, and established the organisation which became known as Al-Qaeda.⁸⁷ For several years, Al-Qaeda comprised an internal faction (i.e. those who fought the Soviets with Bin Laden in the 1980s) and an external faction (i.e. global MAK operatives). One of Al-Qaeda's goals is to rebuild the caliphate, an Islamic government that rejects secular political and economic institutions, and is ruled solely by a Caliph - the head of state, based on the values, virtues and regulations of the Qur'an.⁸⁸ The last caliphate took the form of the Ottoman Empire which was dismantled in 1924.⁸⁹ Al-Qaeda aims to establish a caliphate by first

⁸³ Bergen, *Holy war, Inc*, 136.

⁸⁴ *Ibid.*

⁸⁵ *Ibid.*

⁸⁶ Al Goodman, "Spain charity terror link alleged," *Cnn.com*, December 8, 2002, sec. World, <http://archives.cnn.com/2002/world/europe/12/08/spain.alqaeda/> (Accessed on: July 1, 2010); William J. Kole, "Intelligence report: Islamic extremists have been transiting Balkans for years," *Associated Press*, April 17, 2006.

⁸⁷ Gunaratna, *Inside Al Qaeda*, 30; Wright, *The Looming Tower*, 131-133.

⁸⁸ Gunaratna, *Inside Al Qaeda*, 28; Wright, *The Looming Tower*, 142.

⁸⁹ Christopher M. Andrew and Alexander Sydney Kanya-Forstner, *The Climax of French Imperial Expansion, 1914-1924* (Stanford: Stanford University Press, 1981).

gathering support from the *Ummah* and establishing a unified Islamic identity. For this, Al-Qaeda assembled a hierarchy charted by the 9/11 commission (2004) in Figure 4.

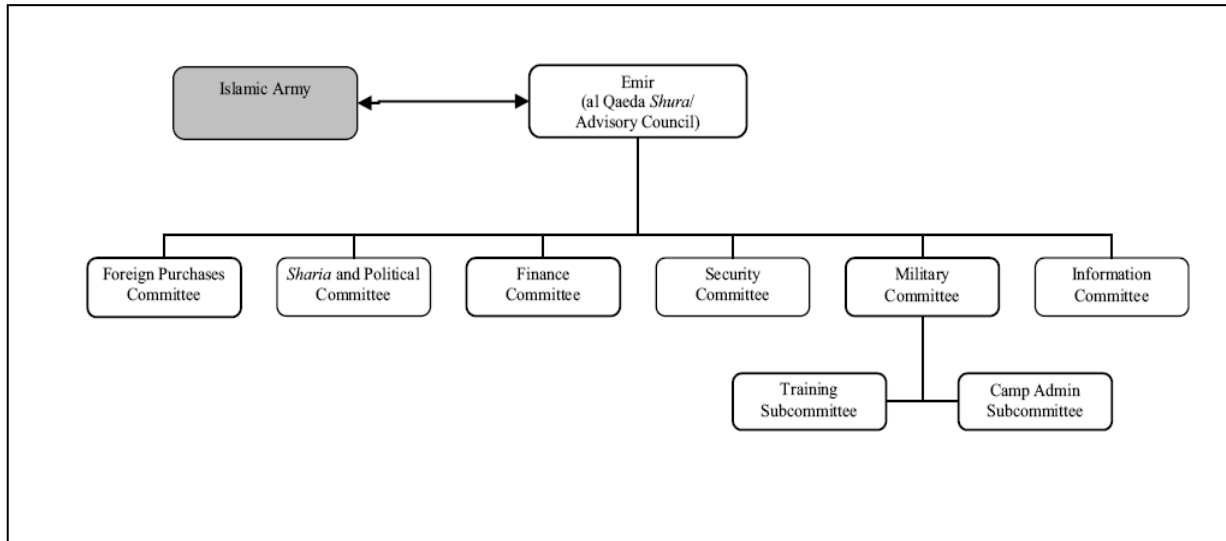


Figure 4: Organisational structure of Al-Qaeda in 1988⁹⁰

The organisation's internal faction consisted of six core departments; each tasked to oversee a particular area of importance and led by a senior operative. For instance, the 'military committee' which oversaw all regimental training activities, research and acquisition of nuclear weapons was headed by Muhammad Atef - a senior Al-Qaeda member - until his death in 2001.⁹¹ Similarly, the 'Political committee', which was tasked to oversee the issuing of *Fatwas*,⁹² was headed by Abu Hajer – an 'expert' on Islamic theological matters.⁹³ Under Hajer's guidance, Al-Qaeda sanctioned the legitimate use of violence against innocents (through two *Fatwas* in 1996 and 1998 respectively).⁹⁴ Al-Qaeda was then made public enemy number one of the US.

⁹⁰ Staff Statement # 15, *National Commission On Terrorist Attacks Upon The United States: 12th Public Hearing; Overview of the Enemy*, 2 (Accessed on: 5th August 2010).

⁹¹ Wright, *The Looming Tower*; "Indictment: United States Of America v. Usama Bin Laden" (United States District Court Southern District Of New York, 2001), news.findlaw.com/cnn/docs/binladen/usbinladen-1a.pdf (Accessed on: 20th June, 2010).

⁹² A fatwa is an Islamic religious ruling, a scholarly opinion on a matter of Islamic law

⁹³ Wright, *The Looming Tower*, 170-171.

⁹⁴ *Ibid.*, 175.

The organisation functioned on a bureaucratic structure of governance. Low ranking operatives were found at the bottom of the hierarchy while higher ranking operatives were tasked to head each of the six core departments. Al-Qaeda operatives were paid a monthly salary of \$1000 to \$1500.⁹⁵ At the helm of the hierarchy sat Bin Laden on the 'Advisory Council' with other senior leaders, including his deputy, Dr Ayman al-Zawahiri – an Egyptian dissident (hereafter referred to as Al-Zawahiri). The advisory members approved, discussed and advised lower level echelons on major terrorist operations – highlighting the nature of a hierarchical structure.⁹⁶

Upon the death of Azzam in November 1989, Bin Laden moved to strategically incorporate the MAK into Al-Qaeda.⁹⁷ To achieve this global take-over, however, Bin Laden had to seed his operatives into the existing MAK offices. The office in Brooklyn, for instance, was infiltrated by Wadih-el-Hage, an Al-Qaeda member who had previously undergone training in Afghanistan.⁹⁸ Once these offices came directly under Bin Laden's control, they continued as independent financial and recruitment conduits. This strategy instantaneously contributed to Bin Laden's rise to power within the MAK; supplying his Al-Qaeda access to an Islamic Diaspora in over thirty-five countries with MAK offices.⁹⁹ Thereafter quickly, MAK dissolved into Al-Qaeda.

Political pressures exerted on Al-Qaeda in the early 1990s, by Saudi Arabia and Pakistan, led Bin Laden to Sudan.¹⁰⁰ Under the pretext of building a 300 kilometre mega-highway for the impoverished nation, the years there (1992-1996) only marked the start of a strategy of

⁹⁵ Ibid., 142.

⁹⁶ "Indictment: United States Of America v. Usama Bin Laden."

⁹⁷ Gunaratna, *Inside Al Qaeda*, 31-32; Wright, *The Looming Tower*, 143-144. According to Wright, on November 24, 1989, Azzam was killed while on his way to a mosque. A roadside bomb comprising twenty kilograms of TNT resulted in the death of Azzam and two of his children. It is unclear if Bin Laden had been behind the attacks.

⁹⁸ Bergen, *Holy war, Inc*, 137.

⁹⁹ Gunaratna, *Inside Al Qaeda*, 5, 27.

¹⁰⁰ *Final Report of the National Commission on Terrorist Attacks Upon the United States. The 9/11 Commission Report* (New York: W.W Norton & Company, 2004).

further internationalisation undertaken by the organisation.¹⁰¹ From Sudan, Bin Laden and his deputy Al-Zawahiri - who visited Silicon Valley twice during this period - anticipated the advantages of decentralised operation.¹⁰² The existing MAK network assisted movement of operatives, as Bin Laden sent his trained men abroad to establish new Al-Qaeda fronts.¹⁰³ These operatives were trained to work as independent compartmentalised hubs. They planted themselves in various terrorist groups, and preached Al-Qaeda's ideology of an Islamic super-nation.¹⁰⁴ The ideology appealed to multiple terrorist groups and Al-Qaeda linked itself directly to these clandestine organisations in Egypt, Jordan, Oman, Algeria, Morocco and Iraq.¹⁰⁵ Al-Qaeda also operated on its own, and operatives were tasked to set up their own cells in countries which were needed to advance Al-Qaeda's goal: Kenya, Canada and the United Kingdom.¹⁰⁶ For example, Fateh Kamal, who had multiple links to operatives in various parts of the world, had attended Bin Laden's 'University of Jihad' in Afghanistan in 1991, and travelled to various parts of the world to set up Al-Qaeda cells and extend its network. In Canada, Fateh set up a network of supporters. In Milan, he oversaw the establishment of a logistics network for Al-Qaeda. Between the early and mid 1990's he travelled from one cell to another in Milan, Roubaix, Jordan, Frankfurt, Austria and Istanbul.¹⁰⁷ The cells were independent of each other and the ability to transit from one cell to another with ease clearly indicates the unity and flexibility of the organisation.

There are parallels between the original MAK structure and the emerging Al-Qaeda network. Both operated without direct oversight by their leaders who were geographically distant. In hindsight, the MAK offices that Bin Laden took over provided the means for Al-Qaeda to

¹⁰¹ Wright, *The Looming Tower*, 165.

¹⁰² Kepel, *The war for Muslim minds*, 88-89.

¹⁰³ Ibid.

¹⁰⁴ Gunaratna, *Inside Al Qaeda*.

¹⁰⁵ *Final Report of the National Commission on Terrorist Attacks Upon the United States. The 9/11 Commission Report*.

¹⁰⁶ "Indictment: United States Of America v. Usama Bin Laden."

¹⁰⁷ Sageman, *Understanding Terror Networks*, 139.

link horizontally with other terror organisations, upgrading the hub-and spoke form into the scale-free structure in the later years. The global structure of Al-Qaeda was gradually becoming observable as Bin Laden developed a terrorist network linking various countries to his base in Sudan.¹⁰⁸

Communication Usage

Al-Qaeda usage of CCTs in the years leading up to 9/11 has been incompletely understood. Although the Internet rapidly expanded in the 1990's in various parts of the world, such as in US and Singapore, The World Development Indicator (World Bank) indicates internet penetration in Sudan was zero percent (0%).¹⁰⁹ This was not an obstacle for Bin Laden who actually discouraged the usage of CCTs, to maintain the highest level of covertness.¹¹⁰

In this Sudan period, Al-Qaeda's communication was fundamentally based on a sophisticated human courier system.¹¹¹ This system was useful to maintain covertness while not compromising communication. Operatives deployed to foreign countries were managed by agent-handlers who were tasked to oversee all communication processes. If agent-handlers were to meet face-to-face with operatives, pre-and-post meeting protocols were required to be adhered to. Meeting points, for instance, should neither be fancy nor lavish. This was to avoid alerting authorities' suspicion. Signalling guidelines were in place if operatives and their respective agent-handlers were to meet for the first-time.¹¹² Similar dress codes or the

¹⁰⁸ Kepel, *The war for Muslim minds*, 88; Sageman, *Understanding Terror Networks*, 44.

¹⁰⁹ "Internet Users," *World Bank, World Development Indicators*, July 2010, http://www.google.com/publicdata?ds=wb-wdi&met=it_net_user&idim=country:SDN&dl=en&hl=en&q=sudan+internet+penetration#met=it_net_user&idim=country:SDN (Accessed on: August 6th, 2010).

¹¹⁰ Alan Cullison, "Inside Al-Qaeda's Hard Drive," *The Atlantic Monthly*, September 2004.

¹¹¹ Gunaratna, *Inside Al Qaeda*, 102-103.

¹¹² UK/BM Translation, "Declaration of Jihad [Holy War] Against The Country's Tyrants Military Series" (Government Exhibit 1677-T, n.d.), 31-45, <http://www.fas.org/irp/world/para/aqmanual.pdf> (Accessed on: May 7th, 2010).

possession of a particular item were considered to be one of the pre-arranged signals worthy of recognition between operatives and regional handlers. These agent-handlers, supervised communication in particular regions, and were the focal communication point between the operatives and the “principal agent-handler”, one of whom was, Abu Zubaydah - head of Al-Qaeda’s external affairs until his capture.¹¹³ It was believed that Zubayah had close contact with Bin Laden and other Al-Qaeda senior operatives.¹¹⁴ The structure at work here (see Figure 5) is akin to the chain network (see Figure 1, Table 1) where information must go through a set of intermediate nodes before reaching the message recipient. Similarly, communication of information had to go through various key members within Al-Qaeda before it reaches the intended recipient. In short, it is apparent a decentralised communication form emerged within Al-Qaeda during its Sudan years – a form build on the hub-and-spoke legacy inherited from the MAK years.



Figure 5- Diagram indicates communication flow within operatives in Al-Qaeda.

Model by: Vicnesh Nadarajah, (2010), RMIT University

The discovery of the ‘Al-Qaeda Manual’ from an operative based in the United Kingdom, helped clarify Al-Qaeda’s use of other communication practices during its formative years.¹¹⁵ Originated in the early 1990s, the manual is deemed as the textbook for ‘Al-Qaedaites’.¹¹⁶

For instance, operatives were given the option of communicating via telephones.¹¹⁷ However, they were encouraged to communicate and contact one another through pay-phones located

¹¹³ Gunaratna, *Inside Al Qaeda*, 131-133.

¹¹⁴ Gunaratna, *Inside Al Qaeda*.

¹¹⁵ UK/BM Translation, “Declaration of Jihad [Holy War] Against The Country's Tyrants Military Series.”

¹¹⁶ Ron Thornton, “Spinwatch- Monitoring PR and Spin,” *The 'Al Qaeda Training Manual' (Not)*, August 5, 2009, <http://www.spinwatch.org/component/content/article/5310-the-al-qaeda-training-manual-not> (Accessed on: August 6th, 2010).

along public streets, as opposed to wired lines. Other precautionary measures included installing a jamming device to the phone lines.¹¹⁸ The device would assist in averting authorities' attention in the event of phone-tapping. Operatives were also encouraged to use certain deceptive techniques whilst using telephones.¹¹⁹ For instance, the caller had to mention specific word(s) to the receiver as a form of signal, before the intended subject was discussed. Both parties to a call were advised to distort their voices during the conversation to avoid detection.

In this period, members of Al-Qaeda organisation communicated using letters. This mode persisted despite the proliferation of CCTs (see Chapter 2).¹²⁰ However, this mode of communication seemed to be flimsy, as both sender and receiver had to be aware of the context of the discussion topic, as the language used in the letters was encrypted and coded. Additionally, the names and addresses of the sender and receiver on the back of the envelope had to be fictitious. Transparent envelopes were discouraged in order not to disclose the details of the letter. The mode of delivery was a crucial element in the usage of letters as it had to be sent to a pre-arranged address, different from the receiver's residence. The manual even reminded operatives of the mundane matter of paying the right amount of postage (to avoid re-bounds, which might alert the suspicions of authorities).¹²¹ The extra precautionary measures through the usage of deceptive techniques demonstrated the intellectual capabilities of the organisation in wanting to remain elusive.

The Al-Qaeda manual also made reference to fax-machines and wireless modes of communication.¹²² However, disclaimers within the manual suggested contemporary

¹¹⁷ UK/BM Translation, "Declaration of Jihad [Holy War] Against The Country's Tyrants Military Series," 33-34.

¹¹⁸ Ibid.

¹¹⁹ Ibid.

¹²⁰ Ibid., 39-40.

¹²¹ Ibid., 40.

¹²² Ibid., 40-41.

technologies were not widely used when the manual was written. Nonetheless, the manual instructed operatives to be vigilant in the usage of such technologies in the event of acquiring them.

From this, we can conclude Al-Qaeda reinforced the hub-and-spoke structure which Azzam had initiated, while developing a human courier system, designed as a chain network – a decentralised mode of communication. Low-level technologies were employed to facilitate communication between operatives, handlers, regional handlers and the top management of the organisation. Even with such restricted communication capabilities, Bin Laden managed to coordinate attacks in Yemen and in the United States during this period. The bombings in 1992 and 1993 of the USS Cole in Aden and the World Trade Centre in New York were however, rehearsals for the bigger destruction in the CCT-acquiring years between 1996 and 2001, which the next chapter will cover.

Chapter 2: Towards Deadly Decentralisation (1996 to 2001)

As the 20th century drew to a close, a series of well-coordinated attacks and periodical statements by Bin Laden, in the form of *Fatwas*, alerted neo-conservatives in Washington to the fundamental seriousness of Al-Qaeda. This period saw Al-Qaeda evolve its hierarchical faction into a decentralised network. At the same time, Bin Laden and his operatives experimented with modern CCTs, ranging from cell phones to the Internet, which proved to be both advantageous and disadvantageous for the organisation. This chapter aims to capture the critical shift in Al-Qaeda's internal structure and comprehend the technologies that were utilised.

In May 1996, flying on a chartered Soviet Tupolev plane from Sudan, Bin Laden and his associates returned from exile to familiar territory in Afghanistan.¹²³ Although refugees to the ruling Taliban government, who had seized power during Al-Qaeda's absence, Bin Laden and his associates were welcomed as heroes by the veteran anti-Soviet fighters in Afghanistan. Bin Laden was cognizant of the unprecedented global network that was taking shape. Al-Qaeda was stealthily moving up as a diffuse transnational network through its zigzag, inter-organisational coordination. Intelligence reports state that as much as 20,000 operatives, under the Al-Qaeda umbrella, existed at that point of time.¹²⁴

To sustain his wide-reaching organisation, Bin Laden followed Azzam's strategy by establishing more hub-and-spoke structures globally. However, unlike his mentor Azzam, Bin Laden avoided any travel and stayed within the safety of the Afghan terrain. From the fortified caves of Tora Bora, Bin Laden situated himself as a spoke (ordinary actor) within

¹²³ *Final Report of the National Commission on Terrorist Attacks Upon the United States. The 9/11 Commission Report*, 63; Wright, *The Looming Tower*, 223.

¹²⁴ *Final Report of the National Commission on Terrorist Attacks Upon the United States. The 9/11 Commission Report*, 67.

these hub-and-spoke structures. This strategy proved useful as it enabled him to remain elusive while simultaneously maintaining communication links to Al-Qaeda's growing network. For instance, Bin Laden anticipated a need for an operative to act as a communication hub to facilitate information flow from his global peripheral cells. The unfavourable conditions in Afghanistan, mainly deriving from the inadequacy of basic communication infrastructures, directed Bin Laden to establish this hub in Yemen.¹²⁵ The hub, which was in operation from May 1996 in the capital Sana'a, was headed by Ahmad al-Hada - a close associate of Bin Laden. Al-Hada acted as a switchboard operator, receiving and diverting calls from operatives located in various parts of the world including the Middle-East, Africa and the USA.¹²⁶ Al-Hada updated Bin Laden on ongoing groundwork undertaken by his operatives. Through this hub, the NSA¹²⁷ discovered that Bin Laden and other senior operatives coordinated the double US embassy bombings in East Africa in 1998, and the USS Cole attacks at the port of Aden in 2000.¹²⁸

In this period, an early indication of Al-Qaeda's organisational overhaul took place on February 23rd 1998. Bin Laden issued a *Fatwa* from his press office cum communication hub, at the Advice and Reform Committee in London.¹²⁹ The *Fatwa* revealed two significant elements of the organisation. Firstly, it announced the formation of a coalition that Bin Laden had built over the last seven years. Under the umbrella of the 'World Islamic Front for Jihad Against the Jews and Crusaders', this was an alliance of major terrorist groups from Somalia,

¹²⁵ James Bamford, *The Shadow Factory: The Ultra-Secret NSA from 9/11 to the Eavesdropping on America* (New York: Anchor Books, 2009), 7-8.

¹²⁶ Ibid.

¹²⁷ National Security Agency

¹²⁸ Bamford, *The Shadow Factory*, 7-8.

¹²⁹ "Indictment: United States Of America v. Usama Bin Laden." The Advice and Reform Committee (ARC) was an illicit organisation whose objectives was to raise funds, train recruits and be a personal media platform for Bin Laden, through which he released his press statements. According to Bin Laden's indictment, the ARC also doubled as a communication hub which managed communication links between senior Al-Qaeda members and operatives in Kenya (see also Chap. 2, n. 143).

Yemen, Bosnia, Bangladesh, Tajikistan, Philippines, Croatia and Kenya linked directly to Al-Qaeda.¹³⁰ In the *Fatwa*, Bin Laden's violent strategy became distinct, calling for:

To kill the Americans and their allies - civilians and military - is an individual duty incumbent upon every Muslim in all countries, in order to liberate the al-Aqsa mosque [in reference to Jerusalem] and the Holy Mosque [in reference to Mecca] from their grip, so that their armies leave all the territory of Islam, defeated and unable to threaten any Muslim.¹³¹

A major organisational reshuffle also took place in 1998 - when Al-Qaeda's internal hierarchical faction decentralised, evolving into "four distinct but interlinked entities": a tactical and strategic network; a global terrorist network made up of original Al-Qaeda members; a network for operatives inside Afghanistan; and a network for the loose coalition of independent terrorist groups 'led' by Al-Qaeda.¹³² Although it is not clear exactly why Al-Qaeda adopted to evolve into a network, it is apparent that Al-Qaeda had judged its hierarchical element to be dispensable. Evolving into a movement rather than an organisation, Al-Qaeda was able to continually adapt to its ever-changing environment.¹³³ This proved to be a shrewd move - especially as Al-Qaeda battled to survive the 'Global War on Terror', following the 9/11 attacks, which intensified the hunt for its leaders.

After the restructuring process, Bin Laden and other senior associates sat on an advisory board, in what was known as a 'consultative council'. Even though the council might seem similar to the earlier hierarchical model in Figure 4, to view it as a rigid centralised system would misunderstand Al-Qaeda. The primary function of the council, according to terrorism scholar Rohan Gunaratna, was reduced to providing "strategic direction and tactical support

¹³⁰ Gunaratna, *Inside Al Qaeda; Final Report of the National Commission on Terrorist Attacks Upon the United States. The 9/11 Commission Report*.

¹³¹ Lawrence, *Messages to the world*, 61.

¹³² Gunaratna, *Inside Al Qaeda*, 76.

¹³³ *Ibid.*, 78.

to its horizontal network of compartmentalized cells and associate organizations".¹³⁴ The network element of Al-Qaeda was visible.

Once all operatives and their associate cells were freed from a rigid centralised control, Al-Qaeda began to exist as a loose, decentralised structure. The enhanced autonomy allowed operatives to plan and implement attacks – without seeking prior approval. It was with this organisational structure that Al-Qaeda successfully orchestrated the 9/11 attacks. Affirming this was the attacks operational chief, Khalid Sheikh Muhammad (hereafter referred to as Sheikh Muhammad), who in a written statement said: "I know that the materialistic Western mind cannot grasp [this] idea, and it is difficult for them to believe that the high officials in al Qaeda do not know about operations carried out by its operatives, but this is how it works".¹³⁵ Further evidence of this were the decisions made by the 9/11 kamikazes. Although Bin Laden knew that a large-scale attack was about to occur on US soil, the date of the attacks and the targets was kept away from him. Instead, these decisions of time and targets were left solely to the hijackers to decide.¹³⁶ On August 3rd 2001, one of the 9/11 hijackers Mohammad Atta (hereafter referred to as Atta), in a conversation with his agent-handler Hazmi Binaklshibh (hereafter referred to as Binaklshibh), confirmed that the suicidal operation would only be dutifully carried out after the first week of September – in conjunction with the start of the US Congress assembly.¹³⁷ Additionally, the White House - nicknamed 'politics' by the hijackers - was one of the initial targets that Binaklshibh had encouraged Atta to consider as part of his hit-list. However, Atta insisted that the White House would prove to be too

¹³⁴ Ibid., 73.

¹³⁵ "Substitution For the Testimony of Khalid Sheikh Mohammad, Defendant's Exhibit 941, U.S v. Moussaoui" (Cr. No. 01-455-A, Accessed on), 55, http://news.bbc.co.uk/2/shared/bsp/hi/pdfs/06_04_06_testimony.pdf (Accessed on: June 3rd, 2010).

¹³⁶ *Final Report of the National Commission on Terrorist Attacks Upon the United States. The 9/11 Commission Report*, 248.

¹³⁷ Ibid. According to his testimony to US officials, Khalid Sheikh Mohammad informed that Binaklshibh was the appointed 'messenger' between the 9/11 hijackers and himself. Additionally according to the 9/11 Commission Report, Atta passed the date of the attack to Hazmi who in turn passed the information to Khalid Sheikh Mohammad.

difficult and suggested the US Capitol building as an alternative target.¹³⁸ The decisions made by Atta and his respective agent-handler clearly demonstrated that lower-level operatives had the power and the liberty to make vital decisions without seeking management advice: decentralisation was proving to be very deadly.

Thus, it is clear that a scale-free network began operating in this period as both the internal and external factions of Al-Qaeda linked up 'horizontally' with other terrorist groups. Consistent with the power-law theory which allows a network to perpetually expand according to the properties of *constant growth* and *preferential attachment*, Al-Qaeda grew in size one node at a time, and evolved into a web-of-webs. Hubs were naturally established through operatives who had more links than others. Peripheral operatives would then continue the recruitment cycle - a process that still goes on today – both physically and virtually.

Communication Usage

It is somewhat ironic that an organisation that discouraged the use of technologies, believing that it weakened the human spirit, became obsessed with modern sophisticated inventions.¹³⁹ Between 1996 and the years leading up to the 9/11 attacks, Al-Qaeda increased its use of CCTs. However, it must be noted that traditional modes of communication, such as the elusive human-courier technique, continued to be utilised to support the scale-free network that was emerging.

One of Bin Laden's early experiments with CCTs came in the form of a grey, battery operated, 'American compact M' satellite phone. In 1996, Bin Laden acquired the phone for US\$7500. His phone, registered under the number: 00873 682505331, had the ability to

¹³⁸ Ibid.

¹³⁹ Wright, *The Looming Tower*, 172.

receive global voice calls as well as fax messages over the Inmarsat satellite.¹⁴⁰ Between the years 1996 to 1998 phone-records transcripts intercepted by the NSA, indicated that Bin Laden and other senior leaders made more than 200 calls to Al-Hada, his communication hub and operations centre in Yemen.¹⁴¹

Intercepted phone records also indicated that he made another 200 calls to London. It was discovered that the name of an operative Bin Laden frequently contacted was Khaled Al Fawwaz.¹⁴² Al Fawwaz ran the Advice and Reform Committee, which served as recruitment and fund-raising office, as well as another communication hub, between operatives from Nairobi and Bin Laden.¹⁴³ These hub-managed multiple calls suggest Bin Laden was meticulous and cautious with his communication put in place to support the hub-and-spoke structure that Al-Qaeda was operating in. Two months following the East-African embassy bombings, Bin Laden discontinued the use of his satellite phone sensing that Washington was tracking his movements through his calls.¹⁴⁴ Indeed, the spy-programme dubbed in the counter-terrorism vernacular, 'Echalon' was responsible for locating the whereabouts of Bin Laden. It had been intercepting calls made to Al-Hada in Yemen, but no attempt was made to capture him or shut down the communication hub – perhaps because the hub and its users were too valuable as a source of intelligence.¹⁴⁵ It was a fatal mistake.

In this period, there were differences in CCT usage by Bin Laden and his operatives. After his experiment with the satellite phone, Bin Laden became cautious in using such

¹⁴⁰ Bamford, *The Shadow Factory*, 8. According to Bamford: '00'- indicates call was made from a satellite phone; '873'- indicates that the call originated from an area around the Indian Ocean; while '682505331' was Bin Laden's personal number.

¹⁴¹ Nick Fielding and John Elliott, "Bin Laden called UK 260 times - Al-Qaeda's phone records - War on terrorism," *The Sunday Times*, March 24, 2002; Bamford, *The Shadow Factory*.

¹⁴² Nick Fielding, "Phone call gave away Al-Qaeda hideout," *The Sunday Times*, September 15, 2002.

¹⁴³ "Indictment: United States Of America v. Usama Bin Laden," 8.

¹⁴⁴ Fielding and Elliott, "Bin Laden called UK 260 times - Al-Qaeda's phone records - War on terrorism."

¹⁴⁵ Bamford, *The Shadow Factory*.

technologies. However, this was not the case for his regional handlers and other operatives who used CCTs to communicate frequently, especially in the events leading towards 9/11. For instance, another 9/11 hijacker Nawaf al-Hazmi and Atta both utilised mobile-phones with pre-paid cards as well as wired lines to communicate and relay information back to the communication hub in Yemen, from their posh San Diego apartment.¹⁴⁶ Telephone number 858-279-5919 registered to Al-Hazmi was even listed in the local phone directory - The Pacific Bell White Pages.¹⁴⁷ Additionally with a purchase of a flip-mobile phone from Motorola and a fifty-dollar calling card, Atta made more than a dozen calls to the Middle East.¹⁴⁸

Various deceptive techniques (as instructed in the 'Al-Qaeda Manual', used by operatives), implied that the group was cautious of call interceptions and voice recognition programmes. On one occasion, Atta used a series of pre-arranged code words and various pay-phones, including the one located near Elmwood Park in New Jersey, to make numerous calls to his agent-handler Binaklshibh.¹⁴⁹ With reference to one such conversation on the 29th of August 2001, Atta had called Binaklshibh to set the date for the twin tower attacks. Atta obfuscated the conversation with a series of riddles including: "Two sticks, a dash and a cake with a stick down - what is it?"¹⁵⁰ Binaklshibh managed to crack the riddle, with the 'two sticks' in the conversation representing the number 11 while the 'cake with the stick down' pointed to the number 9.¹⁵¹ It was in reference to '9/11'. Additionally, when using cell-phones, operatives perpetually changed phone numbers by using a myriad of calling cards each lasting a few calls, to elude potential detection. The 9/11 operatives exploited a total of 133 calling cards

¹⁴⁶ Ibid.

¹⁴⁷ Ibid., 31.

¹⁴⁸ Ibid., 53.

¹⁴⁹ Bamford, *The Shadow Factory*.

¹⁵⁰ Yosri Fouda and Nick Fielding, *Masterminds of Terror: The Truth Behind the Most Devastating Terrorist Attack the World Has Ever Seen* (New York: Arcade Publishing, 2004), 140.

¹⁵¹ Ibid.

which were pre-paid, to make numerable calls to regional handlers.¹⁵² The combination of using mobile-phones and deceptive techniques proved useful, as the operatives' serpentine behaviour became too slippery for their capture.

The Internet soon emerged as the ether of Al-Qaeda's elusiveness. In 1999, when terrorism scholar Gabriel Weimann first started collating websites initiated by terrorist organisations, he only found a handful of such sites, although it is not clear how many belonged exclusively to Al-Qaeda.¹⁵³ Some of these sites were exploited for the purpose of communication. For instance, from May 2000 to September 2001, Abu Zubayda used a website to post more than 2,300 secret messages online to communicate with fellow operatives.¹⁵⁴ Although the content of the messages were not revealed by investigators, it was discovered that some of the messages were skilfully encrypted by free online programmes, such as the 'Pretty Good Software' (PGP). This was done to protect the privacy of the messages and ultimately the identity of operatives.¹⁵⁵

Communication via e-mails was also slowly becoming ubiquitous among Al-Qaeda operatives. Two particular e-mail addresses, however, constantly appeared on the radar-screens of US security agencies. Cyber-fingerprints left by the users on their computers revealed that these e-mail addresses - *kkhd2002@yahoo.com* and *hzi2002@yahoo.com* - belonged to two of the 9/11 hijackers.¹⁵⁶ The e-mail accounts were primarily used to surf the web and to communicate with other members of the Al-Qaeda network in the days leading to 9/11. Computer forensics later revealed that the e-mails sent by the operatives originated

¹⁵² Bamford, *The Shadow Factory*, 53.

¹⁵³ Weimann, *Terror on the Internet*.

¹⁵⁴ Jack Kelley, "Militants wire Web with links to jihad," *USA Today*, October 7, 2002, sec. More News, <http://www.usatoday.com/news/world/2002/07/10/web-terror-cover.htm> (Accessed on: October 1st, 2010); Magnus Ranstorp, "The Virtual Sanctuary of Al-Qaeda and Terrorism in an Age of Globalisation," in *International Relations and Security in the Digital Age* (Taylor & Francis, 2007), 30-56.

¹⁵⁵ Gunaratna, *Inside Al Qaeda*, 102.

¹⁵⁶ Bamford, *The Shadow Factory*, 26.

from public spaces, including the San Diego State University – another method of deception.¹⁵⁷

An extra layer of secrecy dubbed the 'virtual dead drop' was also utilised by operatives, especially when discussing sensitive information.¹⁵⁸ For instance, operatives' linked to Sheikh Mohammad, would first join one of the many free e-mail providers (i.e- yahoo mail and hotmail). These operatives would then compose their messages and save it in the drafts folder of this pre-arranged e-mail account. The password, one of which was 'silverbullet', was subsequently transferred to the intended recipient via an encrypted online message board.¹⁵⁹ The recipient then reads the draft message and saves his response in the same folder. By not sending e-mails over the Internet, Sheikh Muhammad and his operatives avoided the risk of interception by security agencies monitoring Internet Protocol (IP) addresses.

Sheikh Mohammad was an important figure in the Al-Qaeda network. Appointed by Bin Laden as Al-Qaeda's "Chief of External Operations", he was also a 'principal agent-handler' between various agent-handlers and Bin Laden.¹⁶⁰ His arrest and subsequent confession, under torture, to authorities in Guantánamo Bay, provided useful insights to the communication methods that Bin Laden used. According to Sheikh Muhammad:

I conducted the September 11 operation by submitting only oral reports. I would travel for a day-and-a-half until I reach Bin-Laden, and I inform him what was happening. Sometimes I scratched down my notes on a small piece of paper about 10cm long...We sent meaningless letters of few lines. We spoke nonsense on the telephone with operatives and the go-between people [sic].¹⁶¹

¹⁵⁷ Bamford, *The Shadow Factory*.

¹⁵⁸ Steve Coll and Susan B. Glasser, "Terrorists Turn to the Web as Base of Operations," *The Washington Post*, August 7, 2005, sec. Middle East (Accessed on: June 8th, 2010).

¹⁵⁹ *Ibid.*

¹⁶⁰ "Substitution For the Testimony of Khalid Sheikh Mohammad, Defendant's Exhibit 941, U.S v. Moussaoui," 2.

¹⁶¹ *Ibid.*, 55.

From Sheikh Muhammad's confession, it is clear that Bin Laden and other senior operatives were not inclined to use just any CCTs. Instead, they favoured face-to-face interaction, using messengers and letters to discuss delicate information.

The usage of low level technologies before 9/11, can be confirmed via an archive of documents, recovered from a 40-gigabyte IBM computer utilised between 1997 and 2001.¹⁶² One of the primary functions of the computer, was to compose letters. Some of these letters typewritten on the popular 'Microsoft Word' processor were neatly organised in various folders and sub-folders for easy retrieval. Under various aliases, senior members of Al-Qaeda, including Al-Zawahiri, would subsequently save the computerised letter onto a diskette which was later hand-delivered to the intended recipients.¹⁶³

Here, 'low tech' communication, plus decentralisation, appears to have been part of a strategy to both sustain and expand Al-Qaeda's capabilities. The network steadily increased its usage of CCTs but older communication technologies, combined with deceptive techniques, were deemed just as significant. The convergence of older and newer form of communication technologies allowed Al-Qaeda to stage its great act of terror on 9/11. With the initiation of the 'Global War on Terror', Al-Qaeda's usage of CCTs resulted in the intensification of its decentralisation - into the virtual realm, as Chapter 3 will show.

¹⁶² Cullison, "Inside Al-Qaeda's Hard Drive."

¹⁶³ Cullison, "Inside Al-Qaeda's Hard Drive"; Alan Cullison and Andrew Higgins, "Files Found: A Computer in Kabul Yields a Chilling Array of al Qaeda Memos," *The Wall Street Journal*, December 31, 2001.

Chapter 3: The Al-Qaeda Effect (Post 9/11)

The circumstances and structure of Al-Qaeda today is a contested issue and has resulted in various descriptions of the organisation. Does Al-Qaeda have an identifiable chain of command or is it a leaderless network? Does a central headquarter exist or has it evolved into a business entity with franchises all over the world? Is it still a hierarchy, a heterarchy or more of a movement or an ideology? Is it all of the above or none of the above? Unfortunately, these questions cannot yet be fully answered.

When Operation 'Enduring Freedom' commenced on October 7th 2001, Pakistani Journalist Hamid Mir witnessed "every second Al-Qaeda member [carrying] a laptop computer along with his Kalashnikov", as they went into hiding into the depths of the Hindu Kush Mountains.¹⁶⁴ This suggests the symbols of technology (laptop computers) and terrorism (Kalashnikov rifles) were deemed to be equally important for the survival of Al-Qaeda. The scattering of operatives, desolation of various fortified training camps, and the March 2002 battle in the Shah-i-Kot valley (to destroy Bin Laden and his network), made the world assume that the 'Global War on Terror' had decimated the Al-Qaeda network.¹⁶⁵ However, nine years on, John O. Brennan - Assistant to the US President and Deputy National Security Adviser for Homeland Security and Counter-Terrorism, acknowledges that:

Al Qaeda has proven to be adaptive and highly resilient and remains the most serious terrorist threat we face as a Nation. The group's intent to carry out attacks against the United States and U.S. interests around the

¹⁶⁴ Coll and Glasser, "Terrorists Turn to the Web as Base of Operations," 1.

¹⁶⁵ Donald M. Snow and Dennis M. Drew, *From Lexington to Baghdad and Beyond: War and Politics in the American Experience*, 3rd ed. (New York: M.E. Sharpe, 2010), 228-229. Between 2nd and 19th of March 2002, the battle of Shah-i-Kot, dubbed Operation Anaconda, saw the largest offensive action to date by coalition forces in Afghanistan. According to Snow and Drew, many Al-Qaeda operatives were either captured or killed, but not Bin Laden who was believed to have escaped to the Pakistani border.

world...remains undiminished, and another attack on the U.S. homeland remains the top priority for the al Qaeda senior leadership.¹⁶⁶

Counter-terrorism officials have long tried to comprehend the robustness and protean nature of Al-Qaeda, after 9/11. Its threats continue to persist despite the increased security environment which has led to the arrest and deaths of more than half of Al-Qaeda's senior leadership.¹⁶⁷ This includes the arrest or deaths of Abu Zubaydah, Sheikh Mohammed, Mustafa al-Yazid and Mohammed Mustafa Ahmad Hawaswi.¹⁶⁸ Although Al-Qaeda's organisational structure remains sketchy, its form can be discerned by analysing its use of terrorism as communication.

Al-Qaeda was cognizant that the only way for its ideology to survive, was to be dependent on its affiliated groups. At this point, Al-Qaeda's tactic was to tap onto the expertise of decentralisation, which it had successfully mastered over the years. However, a slight change is noted with its association with these affiliated groups, post-9/11. Instead of direct associations, Al-Qaeda began linking itself indirectly to almost any other terror group that merely supported and subscribed to its ideology.¹⁶⁹ As communication, the attacks on 9/11 were apparently intended to galvanise and mobilise other terror groups and Muslim sympathisers to Al-Qaeda's vision.¹⁷⁰ Indeed after 9/11, Al-Qaeda forged indirect ties with as

¹⁶⁶ John O. Brennan, "A New Approach to Safeguarding Americans" (Speech, Centre for Strategic and International Studies, August 6, 2009), www.whitehouse.gov/the_press_office/Remarks-by-John-Brennan-at-the-Center-for-Strategic-and-International-Studies/ (Accessed on: 5th August, 2010).

¹⁶⁷ Gunaratna, "The Post-Madrid Face of Al Qaeda," 93; Bruce Hoffman, "Al Qaeda, Trends in Terrorism, and Future Potentialities: An Assessment," *Studies in Conflict & Terrorism* 26, no. 6 (2003): 433.

¹⁶⁸ Gunaratna, "The Post-Madrid Face of Al Qaeda." Mustafa al-Yazid was believed to be Al-Qaeda's third in command and was killed in a drone attack on 1st June 2010. Mohammed Mustafa Ahmad Hawaswi was a key member in the Al-Qaeda organisation and acted as a financier for the 9/11 attacks. He is believed to be under US custody.

¹⁶⁹ Burke, "Al-Qaeda"; Bruce Hoffman, "The Changing Face of Al Qaeda and the Global War on Terrorism," *Studies in Conflict & Terrorism* 27, no. 6 (2004): 549-560.

¹⁷⁰ Rohan Gunaratna, "Current and Emerging Terrorist Threats to Australia" (Lecture, The Centre for Policing, Intelligence and Counter Terrorism, Macquarie University, Sydney, Australia, 2010), <http://www.pict.mq.edu.au/about/activities.html> (Accessed on: October 1st, 2010); Gilles Kepel, *Jihad: The Trail of Political Islam*, 2nd ed. (London: I.B.Tauris, 2004), 2.

many as twenty-four organisations and began to operate through them.¹⁷¹ These groups came from as far as Asia – e.g. Jemmah Islamiyah in Indonesia and Abu Sayyaf Group in Philippines, as well as from the Middle East – e.g. Al-Zarkawi group in Iraq.¹⁷² Thus, while the world heard President Bush's stand, "You are either with us or against us", Al-Qaeda continued to see itself as the armed hub of President Bush's enemy, with Bin Laden simply mirroring Bush's binary: "These events have divided the whole world into two sides. The side of believers and the side of infidels..."¹⁷³ The world as we knew it, was split into two – by both President Bush and Bin Laden.

Nevertheless, this became the non-interference of Al-Qaeda's central leadership (in reference to Bin Laden, his deputy Al-Zawahiri and others who belonged to the former consultative council) in terrorist attacks. In short, 21st century Al-Qaeda out-sources its terrorist penchant; granting these loose affiliations of fighters 'licence' to autonomously attack in the name of Al-Qaeda.¹⁷⁴ This tactical strategy has proved successful as self-activated terrorist acts, linked indirectly to Al-Qaeda, have erupted, which include attacks by the Jemmah Islamiya in Bali (2002)¹⁷⁵ and the commuter train bombings in Madrid (2004)¹⁷⁶ and subsequently in London (2005).¹⁷⁷ Corroborating this, Bin Laden's close ally, Abu Sandal has highlighted the fact that every component of the Al-Qaeda network is self-activated - operatives with the capabilities to plan and execute an attack without seeking prior approval.¹⁷⁸ Thus, although

¹⁷¹ Gunaratna, "The Post-Madrid Face of Al Qaeda," 92.

¹⁷² Gunaratna, "The Post-Madrid Face of Al Qaeda," 93; Hoffman, "The Changing Face of Al Qaeda and the Global War on Terrorism," 551.

¹⁷³ "Osama Bin Laden," *The Age*, October 9, 2001, 8; George W. Bush, "Address to a Joint Session of Congress," September 21, 2001, <http://archives.cnn.com/2001/US/09/20/gen.bush.transcript/> (Accessed on: July 18th, 2010).

¹⁷⁴ Gunaratna, "The Post-Madrid Face of Al Qaeda"; Burke, "Al-Qaeda"; Hoffman, "The Changing Face of Al Qaeda and the Global War on Terrorism."

¹⁷⁵ Rollins, *Al Qaeda and Affiliates: Historical Perspective, Global Presence, and Implications for U.S. Policy*, 23-25.

¹⁷⁶ Paul Hamilos, "The worst Islamist attack in European history," *The Guardian*, October 31, 2007, sec. World News.

¹⁷⁷ "Al-Qaeda claims London bombings," *BBC*, September 19, 2005, sec. Middle East, http://news.bbc.co.uk/2/hi/middle_east/4262392.stm (Accessed on: October 5th, 2010).

¹⁷⁸ Steve Coll and Susan B. Glasser, "Attacks Bear Earmarks Of Evolving Al Qaeda," *The Washington Post*, July 8, 2005.

Al-Qaeda's frequency in attacks since 9/11 has multiplied, it is noted that the core leadership direct involvement in such attacks has conversely decreased, leading to the blurring of its organisational structure.¹⁷⁹

This suggests Al-Qaeda is now the 'will-of-the-whisp' of terrorism, consisting of a concept - "an amorphous movement tenuously held together by a loosely networked transnational constituency rather than a monolithic, international terrorist organisation".¹⁸⁰ The absence of a decision-making hub or a central authority has led to the facelessness and lack of structure within Al-Qaeda.¹⁸¹ In a sense, Al-Qaeda should no longer be understood as a group, network or an organisation but as a concept with a viral capacity which inspires acts of terrorism from Indonesia to Afghanistan.

The decentralisation of responsibilities and withdrawal of involvement by the Al-Qaeda core has yielded success. From a monolithic Al-Qaeda, there are currently various 'Al-Qaedas' - all inspired and united, by its ideology, but operating independently of each other.¹⁸² According to a US Congress Report in 2010, the initial twenty-four affiliations have grown and now include Al-Qaeda in the Arabian Peninsula (AQAP), Al-Qaeda in the Islamic Maghreb (AQIM), various groups in East Africa, Pakistan and South East Asia.¹⁸³

More recently, however, a further intensification in decentralisation has seen the uptake of a new breed of terrorists with self-proclaimed individual affiliation with Al-Qaeda. In reality, these 'do-it-yourself-terrorists', are neither associated directly to Al-Qaeda or to any of its indirect affiliations. These nebula of stand-alone individuals are first radicalised by Al-Qaeda's ideology and then move from passivity to either supporting or being directly

¹⁷⁹ Hoffman, "The Changing Face of Al Qaeda and the Global War on Terrorism," 552.

¹⁸⁰ Ibid.

¹⁸¹ Burke, "Al-Qaeda."

¹⁸² Hoffman, "The Changing Face of Al Qaeda and the Global War on Terrorism," 552.

¹⁸³ Rollins, *Al Qaeda and Affiliates: Historical Perspective, Global Presence, and Implications for U.S. Policy*.

involved in a terrorist activity.¹⁸⁴ This syndrome may be called the Al-Qaeda effect. A recent report suggests that more than 40 acts of terror had been plotted against the United States since 9/11, bears the hallmarks of 'do-it-yourself-terrorism'.¹⁸⁵ Demonstrating the implications of this type of terrorism, are US citizens Mohamed Alessa and Carlos Almonte: both of whom forged virtual links to terrorist organisations by accessing the Internet and exposing themselves to terror websites and extremist videos. They participated in discussions related to the *Al-Shabaab* organisation - a group indirectly related to Al-Qaeda - and downloaded various terrorist lectures to their cell phones. They were eventually arrested while attempting to join the *Al-Shabaab* organisation.¹⁸⁶

A common element among these 'do-it-yourself terrorists' is the level of involvement with CCTs. The Internet is crucial for this terrorist mode.¹⁸⁷ American-born Zachary Adam Chesser, for instance, was radicalised through watching Al-Qaeda related videos.¹⁸⁸ After agreeing with its ideology and participating in forums with other like-minded individuals, the twenty-one-year-old operated his own YouTube account, '*AlQuranwaAlaHadeeth*' and the blog, '*themujhidblog.com*' where links to Al-Qaeda related materials were discovered.¹⁸⁹ Furthermore, using social-networking sites such as Twitter and multiple Facebook profiles, under the banner of his self-given Arabic name 'Abu Talhah al-Amrikee', he aspired to use CCTs to "oversee the future of American jihadist activity and propel it into the next era of sophistication".¹⁹⁰ According to his affidavit, in one of his blog postings, entitled 'An

¹⁸⁴ Jerome P. Bjelopera and Mark A. Randol, *American Jihadist Terrorism: Combating a Complex Threat* (Congressional Research Service, September 20, 2010), 11.

¹⁸⁵ Bjelopera and Randol, *American Jihadist Terrorism: Combating a Complex Threat*.

¹⁸⁶ *Ibid.*, 67-68.

¹⁸⁷ Bjelopera and Randol, *American Jihadist Terrorism: Combating a Complex Threat*.

¹⁸⁸ "Affidavit: United States Of America v. Zachary Adam Chesser (Case 1:10-mj-00504-TCB)" (United States District Court For The Eastern District Of Virginia, July 21, 2010), <http://news.intelwire.com/2010/07/zachary-adam-chesser-aka-abu-talha-al.html> (Accessed on: October 1, 2010).

¹⁸⁹ *Ibid.*, 3.

¹⁹⁰ Jarret Brachman, "My Pen Pal, the Jihadist," *Foreign Policy*, July 29, 2010, para. 17, http://www.foreignpolicy.com/articles/2010/07/29/my_pen_pal_the_jihadist (Accessed on: August 1st, 2010).

Overview of The Jihad In Somalia', he highlighted the usefulness of the Internet and incited his readers to travel to Somalia to fight along-side Al-Qaeda:

We (the Ummah) must trust the brothers and sisters who take time to tell the truth on the Internet... Are you doing your part to support your Brothers and Sisters in Somalia? This is a call to action to fulfil your obligation as a Muslim to defend your Brothers and Sisters.¹⁹¹

The intensification of decentralisation - the cycle of virtual recruiting and expansion of Al-Qaeda through lone individuals is an example of a broader global trend in terrorism. This raises the issue of whether the radicalisation and recruitment of these individuals been part of Al-Qaeda's master plan or was it spontaneous? A break-through in understanding this 'do-it-yourself-terrorism' came after the exposure of a raid on a safe-house in Afghanistan. Security officials found more than twenty hours of video footage filmed in 2000 by a prominent Al-Qaeda leader named Mustafa Setmariam Nasar, but more widely known by his *nom de guerre* Abu Musab al-Suri (hereafter referred to as Al-Suri).¹⁹² The recordings highlighted Al-Suri's vision for the 21st century Al-Qaeda based on 'individual terrorism':

Why do we ask for such individual terrorism? First because secret hierarchical organisations failed to attract Muslims. The youth fear joining such an organisation because if there is a mistake then the authorities will reach them. Second because we need to give the youth the chance to play a role without being part of an organisation [sic].¹⁹³

Prior to his capture, Al-Suri also wrote a 1600 page book entitled, *The Global Islamic Resistance Call* in which he emphasizes the need for 'Individual Terrorism' (*jihad al-irhab al-fardi*) – i.e. small autonomous cells and individuals, operating without the need to physically join Al-Qaeda. He also criticises the centralised top-down approach of terrorist cells.¹⁹⁴ Al-

¹⁹¹ "Affidavit: United States Of America v. Zachary Adam Chesser (Case 1:10-mj-00504-TCB)," 12.

¹⁹² Cruickshank and Ali, "Abu Musab Al Suri: Architect of the New Al Qaeda," 1.

¹⁹³ Ibid., 8, as seen in, Abu Musab al Suri, jihadist training videos, dated August 2000.

¹⁹⁴ Cruickshank and Ali, "Abu Musab Al Suri: Architect of the New Al Qaeda," 8; Akil N. Awan, "The Virtual Jihad: An Increasingly Legitimate Form of War," *CTC Sentinel* 3, no. 5 (May 2010): 11.

Suri even proposed a variety of non-violent modes to support this concept of 'individual terrorism'. One of these modes was legitimising the use of media as a form of weapon. The legitimisation of this media war has gained the adoration of online individuals as anyone who wishes "to contribute to the conflict, but is unable or unwilling to partake in actual warfare is given a vindictory rationale for this alternative, entirely legitimate mode of action."¹⁹⁵ Additionally, Al-Suri's videos, writings and research are readily available online, with teachings from the 21st century strategist being uploaded every other day by his followers, and making possible that his teachings are inspiring the next generation of 'do-it-yourself terrorists'.¹⁹⁶

Furthermore, other prominent affiliates of Al-Qaeda have also similarly sanctioned the use of CCTs to advance Al-Qaeda's goals. Dubbed the 'Bin Laden of the Internet', Anwar Al Awlaki (hereafter referred to as Al Awlaki) encouraged the use of e-mail lists, online chat-rooms and websites as potential virtual weapons for the new mode of conflict.¹⁹⁷ The legitimisation of virtual war, as equally important as the physical war, has generated '*E-Mujahiddins*' who can support Al-Qaeda from behind their laptops and i-Pads without the need to be physically present in the conflict.

The method which Al-Suri envisioned for Al-Qaeda-to-be, is taking shape now. This is apparent in the uprising of individual operatives and various autonomous cells operating independently of each other towards the achievement of Al-Qaeda's goal. The distinct similarity between Al-Qaeda's rapid decentralisation and Al-Suri's vision has led researchers Paul Cruickshank and Mohannad Hage Ali to argue that Al-Suri's ideas have "made a very

¹⁹⁵ Awan, "The Virtual Jihad: An Increasingly Legitimate Form of War," 11.

¹⁹⁶ Ibid.

¹⁹⁷ Anwar Al Awlaki, "Anwar al Awlaki: 44 Ways to Support Jihad," *The NEFA Foundation*, February 5, 2009, 12, <http://www.nefafoundation.org/miscellaneous/FeaturedDocs/nefaawlaki44wayssupportjihad.pdf> (Accessed on: September 15th, 2010).

significant impact” on how Al-Qaeda now operates.¹⁹⁸ Al-Qaeda’s intellectual capabilities must not be underestimated. There is an intelligent aspect to the strategic decentralisation of Al-Qaeda.

Communication Usage

In late 2007, over 900 individuals from around the globe with access to the Internet, responded to a call from a prominent Al-Qaeda leader to an online ‘Question and Answer’ session. Scorning the American democratic fashion of ‘town-hall meetings’, Al-Zawahiri offered an invitation to internet users to submit queries they had regarding to Al-Qaeda’s political ideologies and strategic framework. Al-Zawahiri himself dealt with and responded to the questions posed on a website in a two part series which was later released online.¹⁹⁹ Al-Zawahiri’s swanking use of the Internet here is an apt illustration of how Al-Qaeda had mastered modern communication technologies to unite like-minded groups and individuals in order to advance its purpose.

Today, Al-Qaeda has a virtual niche with little competition from other terrorist groups. Shortly after 9/11, sites such as ‘*al-neda.com*’ (the call) acted as platforms whereupon Al-Qaeda’s goals could be made known and operatives communicate with each other. Hosted from a server in Malaysia, the site contained audio and video sermons by Bin Laden and other senior operatives, spreading the Al-Qaeda rhetoric. Although the website was eventually taken down on July 3rd 2002, it quickly reappeared on another domain,

¹⁹⁸Cruikshank and Ali, “Abu Musab Al Suri: Architect of the New Al Qaeda,” 9.

¹⁹⁹Joe Ghanem, “Al Qaeda 2.0,” *Menassat*, May 7, 2008, <http://www.menassat.com/?q=en/news-articles/3640-al-qaeda-2-0> (Accessed on: August 3rd, 2010); James Baird, “Al-Zawahiri “Online Q&A” raises troubling questions,” *Tennessee Journalist*, September 12, 2008, sec. Politics, <http://tnjn.com/2008/jan/22/al-zawahiri-online-qa-raises-t/> (Accessed on: July 15th, 2010).

“darasat.com”²⁰⁰ Such has been the state of flux of Al-Qaeda websites - disappearing and reappearing, like a spiralling broken line (on and off), to remain elusively resistant to closure. These sites change their URLs frequently and even ‘hide’ themselves within various sites to remain non-detectable.²⁰¹ Currently, Al-Qaeda’s strong virtual presence is evident through 50 different websites.²⁰² More recently, some of these sites also feature an online feedback form, RSS feeds and Listservs which both administrators and individuals utilise to communicate with each other.²⁰³

Al-Qaeda realised that its growing online presence helped ensure its survival. It has also recognized the need to authenticate its online content and so, the *As Sahab* media production group was established in 2003.²⁰⁴ The 9/11 mastermind Sheikh Muhammad, has revealed that this production group was personally headed by Al-Qaeda’s number two man - Al-Zawahiri, highlighting the importance given to CCTs by Al-Qaeda.²⁰⁵ The secretive *As Sahab* was tasked to manage all online content of Al-Qaeda. Sony Vaio Laptops and high-tech encryption technologies had been used to film, edit and produce High Definition (HD) video footages of attacks, shot in documentary style.²⁰⁶ This material was also branded with the Al-Qaeda logo (two swords criss-crossing each other against the Qur’an) as a sign of authenticity. By 2009, Al-Zawahiri had directed more than 100 videos including feature-films and videos shot in languages apart from Al-Qaeda’s working language of Arabic.

²⁰⁰Patrick Di Justo, “How Al-Qaida Site was Hijacked,” *Wired*, October 8, 2002, <http://www.wired.com/culture/lifestyle/news/2002/08/54455> (Accessed on: 15th October, 2010).

²⁰¹Ranstorp, “The Virtual Sanctuary of Al-Qaeda and Terrorism in an Age of Globalisation,” 9.

²⁰²Weimann, *Terror on the Internet*, 65.

²⁰³Seib and Janbek, *Global Terrorism and New Media*, 52-53.

²⁰⁴Jarret Brachman, *Global Jihadism: Theory and practice* (London: Routledge, 2009).

²⁰⁵*Combatant Status Review Tribunal Hearing for ISN # 10024*, 2006, 17, http://www.defense.gov/news/transcript_isn10024.pdf (Accessed on: May 7th, 2010).

²⁰⁶Seib and Janbek, *Global Terrorism and New Media*; Brachman, *Global jihadism*.

Additionally, some of the videos featured Bin Laden calling for more attacks, from his followers and sympathisers.²⁰⁷

Another media outlet- the Global Islamic Media Centre (GIMF), with links to Al-Qaeda - was established in 2002.²⁰⁸ One of its roles was to facilitate continuous communication between operatives of Al-Qaeda and online participants. These communication which usually occur in chat-rooms and forums are the “virtual equivalent of the militant mosques”, where radicalisation is very much likely to occur.²⁰⁹ To establish a chat-room is relatively easy with platforms such as Google’s social-networking service ‘Orkut’ readily available. This programme had been utilised by Al-Qaeda members and sympathisers to rally support for Bin Laden.²¹⁰ Here, virtual communities are formed through interaction between like-minded individuals and operatives. They are able to freely discuss operational constraints, recruitment criteria and even plan future attacks. Online participants are able to post questions and receive answers in ‘real-time’ from operatives and may even reach key actors in the organisation.²¹¹ For instance, under the avatar ‘Irhabi 007’,²¹² Londoner Younis Tsoili, entered terrorist chat-rooms where he was able to get in touch with senior Al-Qaeda operatives on the *Muntada al-Ansar al-Islami* forum.²¹³ Younis soon became a prominent member of the forum and eventually established himself as an online hub connecting Al-Qaeda operatives to other forum participants. Radicalised through these forums, he subsequently encouraged others to commit acts of terrorism in the name of Al-Qaeda, until

²⁰⁷ Seib and Janbek, *Global Terrorism and New Media*, 32.

²⁰⁸ Brachman, *Global jihadism*, 127.

²⁰⁹ Sageman, *Leaderless Jihad*, 121.

²¹⁰ Brachman, “High-Tech Terror,” 152.

²¹¹ Sageman, *Leaderless Jihad*.

²¹² ‘Irhabi’ is Arabic for terrorist while ‘007’ was a reference to the British spy agent James Bond.

²¹³ Rita Katz and Michael Kern, “Terrorist 007, Exposed,” *The Washington Post*, March 26, 2006, sec. Technology.

his apprehension in October 2005.²¹⁴ The circumstances surrounding the Younis Tsoili case bears the hallmarks of the 'individual terrorism' phenomenon Al-Suri had envisioned. The virtual recruitment cycle had provided Younis with the effortless means of establishing links with Al-Qaeda operatives which could have been laborious in the physical realm.

Since 2005, there has been a surge in the total number of Al-Qaeda related forums. 'Internet Haganah'²¹⁵ - a virtual-police website - constantly updates its 'Top-Ten' list of terrorism related forums which provide a platform for communication and networking between operatives and like-minded supporters. By utilising a 'shaming' method of exposing terrorist-related websites on its domain for authorities to take further legal action, Internet Haganah has had considerable success. As of 2006, Internet Haganah has tracked the ISPs and shut more than 700 websites and forums belonging to Al-Qaeda and other terrorist groups.²¹⁶

Although the majority of Al-Qaeda affiliated sites and forums target mostly Arab speaking audiences, English translations of these forums are available. One such forum is <http://www.ansar1.info> where at the time of writing, users could download Al-Qaeda's *As Sahab* related media publications and press releases, including the English translation of a book believed to be authored by Bin Laden himself. Additionally, in March 2010, *As Sahab* released a full-fledged English video entitled, 'A Call to Arms', narrated by Al-Qaeda's official spokesman, Adam Gadahn.²¹⁷ The American-born praised recent Al-Qaeda attacks and attempted to galvanise the sentiments of western citizens.

²¹⁴ Gordon Corera, "The World's Most Wanted Cyber-Jihadist," *BBC*, January 16, 2008, sec. Americas, retrieved from: <http://news.bbc.co.uk/2/hi/americas/7191248.stm> (Accessed on: September 6th, 2010).

²¹⁵ 'Haganah' is Hebrew for defence

²¹⁶ Atwan, *The Secret History of Al Qaeda*, 137.

²¹⁷ Bjelopera and Randol, *American Jihadist Terrorism: Combating a Complex Threat*, 9.

Although a major part of Al-Qaeda's CCTs usage has been for the purposes of networking and communication, there have been other uses for it. Post 9/11 Al-Qaeda used CCTs to ensure that its ideology and vision remained relevant. For instance, an online audio sermon was released by an Al-Qaeda affiliated group – Al-Qaeda in the Arabian Peninsula (AQAP). It featured a self-proclaimed religious authority of Al-Qaeda - Shaikh Ibrahim al-Rubaysh.²¹⁸ Although posting an online sermon might seem mundane, one interesting detail noted was the representation of an i-Pod on the online banner promoting the audio footage. This demonstrates how messages can now be downloaded as an application onto interpersonal media gadgets and radicalisation can transpire on-the-go.

Recent trends have suggested social media sites such as Facebook and YouTube are being tapped by Al-Qaeda's affiliates to achieve its goals. For instance, on the 15th of August 2010, three Facebook pages simultaneously appeared containing links to Al-Qaeda related videos hosted on the *As Sahab* website.²¹⁹ These Facebook pages were discovered by Internet Haganah on the 22nd of August 2010. At the time of writing, over 40 people had subscribed to the pages, with each page having multiple links to external videos hosted by the *As Sahab*'s Media establishment.

Further to this, Al-Qaeda affiliated English speaking clerics have exploited YouTube to spread its ideology further, targeting largely non-Arab audiences. Al Awlaki who speaks fluent English, for instance, has been uploading his radical messages directly onto various YouTube accounts. A quick search on the video-sharing website revealed as many as 2000 videos of the Al-Qaeda affiliated cleric are available. One of his works, '44 ways to Jihad'

²¹⁸ Jarret Brachman, "Jihad Straight to Your Ipod? AQAP's Latest Gimmick," *Cronus Global LLC*, April 18, 2010, <http://jarretbrachman.net/?p=646> (Accessed on: August 11th, 2010).

²¹⁹ "A Guide to the Global Jihad on Facebook," *Internet Haganah*, August 22, 2010, <http://internet-haganah.com/harchives/006951.html#006951> (Accessed on: 22nd August, 2010).

has been translated into a video format with more than 1500 views recorded.²²⁰ The 29th way on the list, 'WWW Jihad', has Al Awlaki sanctioning the virtual battlefield as a legitimate mode of waging war.²²¹ There are now indications that Umar Farouk Abdulmutallab (Christmas Day Bomber), Nidal Hassan (Fort Hood Shooter) and Faisal Shahzad (Times Square Bomber) have all been inspired by Anwar's communication strategy.²²² This raises the prospect of more self-ordering individuals deciding to perform terrorist acts after encountering Al-Qaeda in virtual reality.

This section has exposed Al-Qaeda's capabilities in using public channels to remain resilient. The uncontrolled and ungoverned nature of CCTs has favoured Al-Qaeda, and has provided a substitution for its diminished facilities in Tora Bora. It is apparent that Al-Qaeda, over the last decade, has mastered the usage of CCTs to advance its goals. The insights from the examinations in the three history chapters, supports the proposition that Al-Qaeda has evolved: from a terrorist organisation with a single media unit in 1988, to a global media franchise that inspires terrorism. Although it is uncertain how Al-Qaeda will use its online rhetoric to advance its goals in the next decade, it is apparent the virtual world will increasingly complement physical martyrdom operations.

²²⁰ *The 44 Ways of Supporting Jihad*, 2010, http://www.youtube.com/watch?v=qoEgY7OXPUA&feature=youtube_gdata_player (Accessed on: September 4th, 2010).

²²¹ Al Awlaki, "Anwar al Awlaki: 44 Ways to Support Jihad," 12.

²²² Awan, "The Virtual Jihad: An Increasingly Legitimate Form of War."

Conclusion

This research thesis sets out to answer the question: If there are links between Al-Qaeda's usage of Converged Communication Technologies and changes within its organisational structure, then how may a history of Al-Qaeda help explain the significance of those links?

The answer to this question can be encapsulated in the 'Al-Qaeda History Model' (see Figure 6). The model summarises the serpentine trajectory of Al-Qaeda's decentralisation between 1988 and 2010 and its increasing capacity to inspire CCT-using individuals into acts of terrorism: the Al-Qaeda effect.

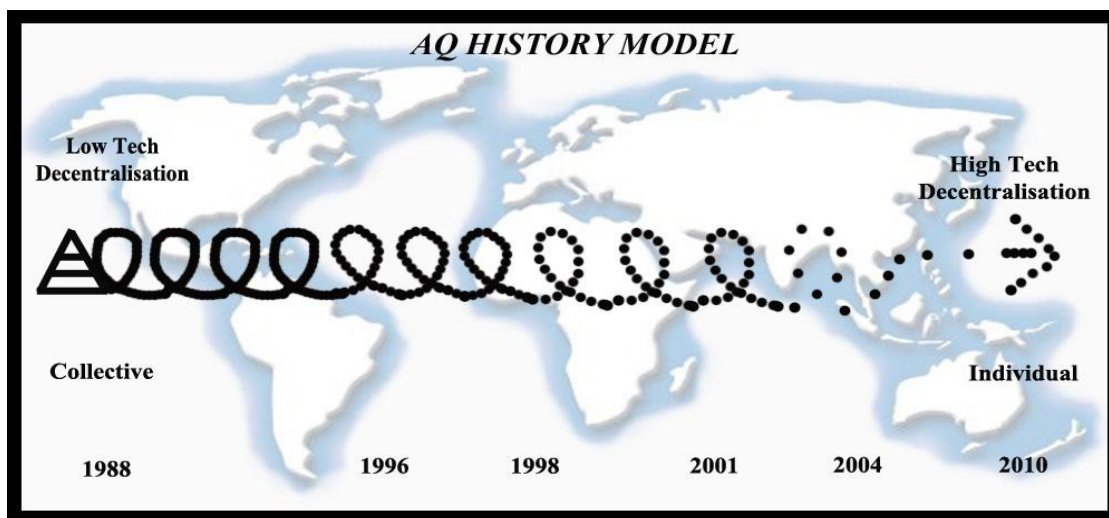


Figure 6

Model by: Vicnesh Nadarajah, (2010), RMIT University

In Figure 6, the triangle signifies the hierarchical structure of Al-Qaeda's internal faction in 1988. The coils signify Al-Qaeda's progressive decentralisation with solid line coils representing localised decentralisation; while the gradually separating dots in coils signify the globalisation and individualisation of the decentralisation. Note that the horizontal trajectory does not imply that the decentralisation process is linear across the globe.

The research discovered that Al-Qaeda used CCTs as well as older technologies during the collective decentralisation which occurred between the years 1988 - 2001. This is an unexpected finding, as there has been a constant emphasis on Al-Qaeda's exclusive harnessing of CCTs to achieve decentralisation. Although it cannot be ignored that CCTs, such as satellite phones and e-mail, were a mode of communication during the late 1990s, low-level technologies such as public pay-phones, 'snail' mail and the 'virtual dead drop' technique were equally important in sustaining the decentralised network. This combination of old and contemporary communication (1996 – 2001) contributed to the complexity of Al-Qaeda's organisational structure compounding its elusive and intangible nature in the later years (post 2001).

It is intriguing to note that the decentralisation of Al-Qaeda currently exists both in the physical realm (visible in the recent attacks carried out by groups both directly and indirectly linked to it), and in the virtual realm where the radicalisation of 'individual terrorists' is on the rise. The legitimisation of the virtual battlefield has contributed to the emergence of these new breed of terrorists. As Figure 6 shows, Al-Qaeda's strategic virtualisation has intensified. Al-Qaeda's use of CCTs to radicalise individuals, to recruit and train potential terrorists (and to exploit websites and forums to communicate), highlights its transition into the virtual realm. These virtual camps are paradoxically one of the few remaining safe havens left for Al-Qaeda. Al-Qaeda's ever-expanding dependence on CCTs indicate that it is the oxygen it needs to thrive and remain relevant.

Perhaps, the most significant detail which has emerged from this account of organisational history of Al-Qaeda, is the apparent inversion within its fundamental structure; an inversion arising from the CCT-driven intensification of its decentralisation. This inversion is its metamorphosis from a collective-of-individuals (1988- 2003) into individuals-in-a-collective

(2004-2010). However, this individuals-in-a-collective phenomenon and its relationship to the caliphate is still in its infancy, and is yet to be fully understood.

In short, although Bin Laden remains Al-Qaeda's figurehead and its camps continue in Afghanistan, Yemen, Somalia and Pakistan, its future elsewhere appears to be in the hands of Al-Qaeda-inspired, but self-ordered CCT-using individuals. These technologically savvy individuals decide the execution of what terrorism to do and when. From a single Bin Laden in Tora Bora, there are now many potential 'Bin Ladens' hiding within the ungoverned world of virtual networks.

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