

Rüdiger Lohlker (ed.)

World Wide Warriors

How Jihadis Operate Online

Vienna University Press



Religion and Transformation
in Contemporary European Society



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Religion and Transformation in Contemporary European Society

Studying Jihadism

Band 14

Herausgegeben von Kurt Appel, Christian Danz,
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und Sieglinde Rosenberger



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Rüdiger Lohlker

Introduction: Confusion meets Confusion

As confusing as the role of religion in jihadism¹ seems to be for those not familiar with Arab culture and Islam, almost as confusing is the role of the Internet in invigorating jihadism for many researchers. The chapters of this book will try to reduce the level of confusion, based on an understanding of theology and history of Islam and based on insights from Data Science, thereby going beyond the state of play of much Western conventional research on jihadism.

In 1991 in the aftermath of the first war of the USA (and allies) against Iraq an referring to the American Civil War Manuel De Landa stated:

“The development of the metallic cartridge and breech-loading firearms caused a revolution in tactics that took military commanders over a hundred years to digest.”²

Things did not change, another technology is applied today. As in former times the impact of these new technologies is still not understood.

We are living in a period of military innovations in which terrorists have weaponized the Internet³ and Jihadi technicians demonstrate their ability to adopt to new technological developments. The chapters of this volume seek to bring together developments in social media, the innovations of jihadists with developments in the strategic thinking of jihadists, based mainly on evidence based research into Arabic language sources and documents from the jihadists themselves.

This volume seeks to remedy a deficiency of much Western research on jihadist terrorism, namely its disregard for religion and the Internet. We will leave aside that the surprising fact that terrorism research at least at 9/11 tends to ignore the role of the coherent theology and religion underlying jihadism. The

1 Jihadism means a transnational movement with a specific Islamic theology and the use of violence as the main distinction from other contemporary Islamic movements.

2 Manuel De Landa, *War in the Age of Intelligent Machines*, New York: Swerve Editions 1991, p. 29.

3 See the remarks on the consumerization of warfare in the chapter by Lohlker.

authors rely mainly on evidence produced by the jihadis themselves, not ignoring it as much of conventional research does.⁴

Rüdiger Lohlker describes the technical aspects of recent jihadist dissemination of operational resources. The chapter includes further remarks on jihadists online strategies.

Ali Fisher criticizes the technical deficiencies of current research on jihadism, not understanding the real operations of jihadists online.

Ali Fisher and Nico Prucha present a case study on the dissemination of jihadist videos online.

Clemens Holzgruber analyzes the jihadist discussion on secure communication online giving insights into the tools used by jihadists.

All the chapters introduce resources that are ignored in conventional research because they are in Arabic and religiously contextualized. This makes it necessary to do a close reading of the sources to enable the research community to leave the mainstream discourses. Stressing a coherent theology of jihadism does not mean jihadism is understood by referring to Islam, the Qur'an etc. We subscribe to the idea recently written down by Ould Mohamedou:

“In time the problem emerged thus: to understand Western terrorists of the 1970s such as the German Red Army Faction or the Italian Red Brigades, one is invited to examine the societal condition of post-war Germany Italy, the ambient malaise in these countries 25 years after Nazism and fascism, and their relationship with their rebellious youth; to make sense of al-Qaeda or IS, one is asked to read the Qur'an.”⁵

The present volume tries to give insights that may remedy this approach turning to the practice of jihadists, not focussing on the speculations about what they think and what is Islam or not.⁶

We have to thank our reviewer for helping us to clarify some ideas in this volume.

4 By way of exception, in the case of the attackers of the WTC in 2001, the role of the “Spiritual Manual” and its religious content has been recognised (Hans G. Kippenberg/Tilmann Seidensticker (eds.), *The 9/11 Handbook*, London/Oakville, CT: Equinox 2006).

5 Mohammad-Mahmoud Ould Mohamedou, *A Theory of ISIS: Political Violence and the Transformation of the Global Order*, London: Pluto Press 2018, pp. 8–9.

6 Shahab Ahmed, *What is Islam? The Importance of Being Islamic*, Princeton/Oxford: Princeton University Press 2016.

Rüdiger Lohlker

Collective Organizers: Lone Wolves, Remote Control, and Virtual Guidance

Intro

Terrorism ‘research’ is dominated by media-induced vocabulary, which tries to demonize and hype the imminent threat of terrorist violence: lone wolves or remote control terrorism are two of the most prominent phenomena.¹ What is neglected, however, is an attempt to understand what is happening on the ground in jihadist practice.²

The chapter is organized in a rhizomatic way mirroring the swarm-like movement of jihadi online communication (see below); the chapter is not following a linear story line. It is based on a careful selection of jihadi online communication during the last years and uses Arabic language sources to close the gap of knowledge that is evident in current mainstream research on jihadism. Since the knowledge of Arabic sources in this research is negligible we feel forced to offer as much information as possible. Any attempt of synthesis would be premature and stand in the way of a thorough understanding of jihadi communication.

Discussing jihadi swarms means analyzing collective processes of self-organization evolving intentionally but also non-intentionally.

Collective Organization

Talking about collective organizers in the context of Jihadism studies is somewhat unusual. A brief remark on the concept of the collective organizer by someone who would nowadays be called an ‘expert’ may be helpful in order to

1 For an overview on the literature on jihadi lone wolf terrorism see Sarah Teich, *Trends and Developments in Lone Wolf Terrorism in the Western World: An Analysis of Terrorist Attacks and Attempted Attacks by Islamic Extremists* (http://www.ctcitraining.org/docs/LoneWolf_SarahTeich2013.pdf) (accessed March 4, 2018).

2 The ideas presented were inspired by discussions during Jakarta Geopolitical Forum 2017. I have to thank Ferdinand Haberl for reading a pre-final version of this chapter.

gain a better understanding of the phenomena we are talking about. Vladimir Ilyich Lenin, quoting himself in his seminal treatise titled *What is to be done?*, says:

“A newspaper is not only a collective propagandist and a collective agitator, it is also a collective organizer. In this respect it may be compared to the scaffolding erected round a building under construction; it marks the contours of the structure and facilitates communication between the builders, permitting them to distribute the work and to view the common results achieved by their organised labour.”³

Understanding the media as an organizing force of an underground organization is a crucial part of the argument laid out in this article. However, we will not argue that there is a fixed structure, “a scaffolding”, within Jihadi online structures, but rather that there is a collective aspect to Jihadi online communication. Not Bolshevik-style organized collective, but a collective organizing itself as a swarm. Ali Fisher has used the word of ‘swarmcast’ in this context⁴ but a longer quotation may be useful in order to clarify this concept:

“In the Swarmcast model there is no longer a clear division between the audience and a content producer in control of the means through which to broadcast content to that audience. Instead, once content is produced and released, it is often the distributing network of media mujahideen, rather than the original producer, that ensures continuing content availability. This type of activity can be understood with the help of the concept of netwar; defined as ‘lower-intensity conflict at the societal end of the spectrum’ in which ‘a combatant is organised along networked lines or employs networks for operational control and other communications’ [...] in their most extreme incarnations, beyond that which Ronfeldt and Arquilla envisioned, the media mujahideen, and other dispersed networks, cease to depend on centralised direction, and instead adopt genuine swarming behaviours as observed in nature. This extends the understanding of netwar and requires netwar to include the importance of emergent behaviour and collective action in complex systems. [...]

The recognition and approval of the media mujahideen, the decision to engage via social media and the increasing violence in Syria provided an opportunity for jihadist groups such as ISIS and JaN to evolve their online strategies which became increasingly aligned with the concepts of netwar. In doing so both ISIS and JaN have enabled them to disseminate content through an interconnected network that is constantly re-configuring, akin to the way a swarm of bees or flock of birds constantly reorganises in flight. It marks a shift from the hierarchical and broadcast models of communication during conflict to a new dispersed and resilient form which embraces the strength of emergent behaviour; the user curated ‘Swarmcast’. [...] Resilience against takedowns and account suspensions has become an important element of the Jihadist Swarmcast. This resilience has emerged over the last two years as jihadist groups have moved from

3 Vladimir I. Lenin, *What is to be done? Burning Questions of our Movement*, New York: International Publishers 1969, p. 105.

4 See his chapter on data science in this volume and the chapter of Nico Prucha and Ali Fisher.

broadcasting content via a few ‘official’ accounts to a dispersed network of media mujahideen who have been able to ensure that jihadist content maintains a persistent online presence. [...] this dispersed form of network structure is attuned to the information age, in which a mode of conflict based on netwar is largely about ‘who knows what, when, where, and why, and about how secure a society, military, or other actor is regarding its knowledge of itself and its adversaries.’ The structures imagined by Arquilla and Ronfeldt in their vision of netwar are sufficiently interconnected to reconfigure after disruption, as a flock of birds reconfigures after avoiding a predator. In other words, loss of a few important nodes cannot inhibit overall operational ability to maintain a persistent presence.”⁵

The Swarmcast has been reconfigured by the emergence of *Telegram* as the main jihadi communication platform, which has been largely ignored by mainstream jihadism research, remaining clueless as to how this platform may work. We must to stress – again and again – that there is no disrupt between the communicative and the operative aspect of jihadism, which has long been known to be an important factor of jihad doctrines. Real life and virtual life go together well – including what has been aptly called ‘consumerization of warfare.’⁶ Indeed, there is a coherent worldview with a coherent mind-set and a consensus on the basic military concepts. As Norman Cigar wrote several years ago in his seminal book on *Al-Qa’ida’s Doctrine for Insurgency*⁷:

“In many ways, Al-Muqrin’s *Guerilla War* reflects a general consensus on doctrine present within the QAP⁸ leadership, arguably the product of shared experiences and discussions over the years, which he codified. [...] Al-Muqrin had apparently long pondered the issues involved in the text and had already taught the ‘Practical Course’ in Afghanistan. The QAP’s teaching of basic military and political concepts reflects the dissemination of a collective outlook and extreme commitment to transcendental goals, which created an atmosphere where ideas ceased to be proprietary and became part of the movement’s accepted canon of operative art.”

Again, we may notice the collective aspect of jihadi thought, even at a relative stage of recent jihadi history. The entanglement of technical experience-based operational art combined with ‘military and political concepts’ and the ‘com-

5 Ali Fisher, *Swarmcast: How Jihadist Networks Maintain a Persistent Online Presence*, in *Perspectives on Terrorism* 9iii (2015) (<http://www.terrorismanalysts.com/pt/index.php/pot/article/view/426/html>) (accessed January 8, 2018). For references see this article. Further remarks on the lack of robust data analysis in <http://uscpublicdiplomacy.org/blog/interpreting-data-about-isis-online?platform=hootsuite> (accessed January 8, 2018).

6 Andrea Zapparoli Manzoni/Paolo Passeri, *Consumerization of Warfare*, in *Hackmageddon* June 16, 2011 (<http://www.hackmageddon.com/2011/06/16/consumerization-of-warfare/>) (accessed January 14, 2018).

7 Norman Cigar, *Al-Qa’ida’ Doctrine for Insurgency: ‘Abd al-’Aziz al-Muqrin’s A Practical Guide for Guerilla Warfare*, Dulles, Va: Potomac Books 2009, p. 12.

8 Al-Qa’ida on the Arab Peninsula (RL).

mitment to transcendental goals' (read: a coherent theological worldview as a basic structure of Jihadi activities) has been lost in the turmoil of short-sighted and short-termed reactions to jihadi operations. Jihadism research has indeed lost its momentum due to its loss of understanding.

It is a truism that research on jihadism is still far away from holistically understanding the phenomenon it claims to research.⁹ Even worse, once the Internet enters the debate "online illiterates" join the community of researchers and claim to be competent critics.

Marc Sageman's insights with respect to the most recent developments may be characterized as 'leaderless Jihad',¹⁰ whilst they have never been systematically integrated into reflections on terrorist phenomena.¹¹ The following pages are to outline a new approach towards an understanding of the combined operational jihadi efforts aimed at adapting to ever-changing circumstances. This approach is based on first-hand knowledge of Arabic language sources, which are the main linguistic resource of jihadi communication. What Malcolm W. Nance wrote several years ago still holds true: "The field of terrorism [...] is a specialized subject that requires serious study, and requires that those in the front line of defense be as knowledgeable as possible."¹² In this regard, jihadi operations – especially online but also offline – still need 'serious study'.

One of the most significant phenomena still in need to be seriously studied is the ability of jihadists to create new technical applications to be used at an operational level.

Turning Offline

Recent research has convincingly demonstrated the fashion in which ISIS blue-collar technicians¹³ have been developing their manufacturing process. A good example may be Khalid Sheikh Mohammed who "received a degree in me-

9 For the case of lone wolf-jihadism see Raffaello Pantucci, *A Typology of Lone Wolves: Preliminary Analysis of Lone Islamist Terrorists* (https://s3.amazonaws.com/academia.edu.documents/24801864/1302002992icsrpaper_atypologyoflonewolves_pantucci.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1520163311&Signature=y8UNcwCk85FLxkly9NwG%2BXWvTs4%3D&response-content-disposition=inline%3B%20filename%3DA_typology_of_lone_wolves_preliminary_an.pdf) (accessed March 4, 2018).

10 Marc Sageman, *Leaderless Jihad: Terror Networks in the Twenty-First Century*, Philadelphia, PA: University of Pennsylvania Press 2011.

11 The first instalment of 'leaderless terrorism' or 'lone wolves' grew out of the white supremacist movement in the US, namely by Tom Metzger and Alex Curtis in the 1990s.

12 Malcolm W. Nance, *Terrorist Recognition Handbook: A Practitioner's Manual for Predicting and Identifying Terrorist Activities*, Boca Raton et al.: CRC Press 2014³, p. 1.

13 It's not only media mujahideen and fighters that should be looked at.

chanical engineering from North Carolina A&T State University, the Associated Press reported, he received permission to build a vacuum cleaner from scratch. Mindless hobbyism, according to his CIA holders, or the mark of a maker. The schematics had been downloaded from the Internet.”¹⁴

IS cadres did something similar. When they were running out of supplies

“they did something that no terrorist group has ever done before and that they continue to do today: design their own munitions and mass-produce them using advanced manufacturing techniques. Iraq’s oil fields provided the industrial base – tool-and-die sets, high-end saws, injection-molding machines – and skilled workers who knew how to quickly fashion intricate parts to spec. Raw materials came from cannibalizing steel pipe and melting down scrap. ISIS engineers forged new fuzes, new rockets and launchers, and new bomblets to be dropped by drones, all assembled using instruction plans drawn up by ISIS officials.”¹⁵

The next step may be the utilization of 3-D printers in order to produce the resources they need, using information readily available on the Internet. Even if this technology may be used up to now only for providing supply parts for weapons it is an innovation that may be important for jihadi operations in the future. Here we can see another aspect of merging real and virtual life. In fact, this is already happening right now – not using 3-D printer devices – but distributing jihadi knowledge online. For the moment, let’s leave aside other supply chains from Eastern European Countries, China, the USA, Russia, Saudi Arabia, Libya, Sudan, etc. – ranging from battlefield captures to diverted materiel – adding to IS-produced ammunition (see above). Let us focus instead on IS widely using IEDs: “IS forces have manufactured and deployed improvised explosive devices (IEDs) across the battlefield on a quasi-industrial scale.”¹⁶ Yet again, we can see the IS blue-collar technicians at work.

The knowledge these technicians can easily be detected by following jihadi Arab-language communication.

14 Brian Castner, Exclusive: Tracing ISIS’ Weapons Supply Chain – Back to the US, in *Wired* (<https://www.wired.com/story/terror-industrial-complex-isis-munitions-supply-chain/>) (accessed January 6, 2018).

15 Ibid.

16 Conflict Armament Research, *Tracing the Supply of Components Used in Islamic States IEDs. Evidence form a 20-months Investigation in Iraq and Syria*, London: Conflict Armament Research 2016, p. 7.

Turning Online Again

Since January 2016 a large amount of resources has been disseminated online under the title 'lone wolves' or '*al-dhi'āb al-munfarida*' – the Arab equivalent for lone wolves.¹⁷ Contrary to the common perception of terrorism research the main target is not 'the West'; other targets are in fact also mentioned in a programmatic series posts in a *telegram* channel called *wilāyat sainā*' (province of Sinai), a channel which at is part of the milieu of IS-related channels on this platform.¹⁸ The post reads (just an excerpt):

“Stand up! Take up any weapon and massacre the infidels and don't spare anyone [...] O lone wolves, know that this world is ephemeral and will not exist forever [...] The lone wolves are the secret weapon of the [Islamic] State. They are the unit of revenge for god, the prophet, and the believers [...] By god, by god! O you rejectionists (*rawāfid*)¹⁹, you hypocritical Arabs (*munāfiqīn*)²⁰, you will not live in peace [...] You will not be able to forget that there are lone wolves who will take revenge for their brothers on the battlefield [...] You heretic (*murtadda*) organizations, you may have cut off the way of migration (*hijra*) [to the Islamic State], but you won't be able to cut off the trail of the wolves.”²¹

The *telegram* channels related to IS,²² bearing the name of “lone wolves” etc., which were used for dissemination of ideas are to some extent inactive by now.²³ The files are still available through other groups and channels on that platform regardless – demonstrating the resilience of jihadi online operations, the swarm-like movement of the jihadi online sphere.

Al-Qa'ida followed the example of IS in using *telegram* channels for the dissemination of ideas on effective military operations.²⁴ Since some examples of

17 'Lone wolves' are described as a very innovative, but often misunderstood as loners although being integrated in a virtual or real network (Marcel Serr, Einsam, innovativ & brandgefährlich. 'Lone wolf'-Terrorismus: Einführung und aktuelle Entwicklungen, in *Österreichische Militärische Zeitschrift*, 1 (2018), pp. 71–75). We are in need of an integrated concept to avoid chasing after any new operation of jihadis.

18 We are not talking about 'official' channels, a ridiculous attempt to create a state-like enemy. If we understand ISIS – and al-Qaeda – as swarm-like entities the desperate search for structures that can be identified with European-US structures is such endeavours are helpless and inefficient.

19 A derogatory term for Shiites.

20 A derogatory term going back to the early times of the Islamic community.

21 *telegram* September 22, 2016 (channel *wilāyat sainā*).

22 Since the use of ISIS seems to be the result of ignoring the changing configuration of the *Islamic State* we stick to IS as the official designation of this entity. For the important link of (proto-)state building jihadi style and black markets see Aisha Ahmad, *Jihad & Co.: Black Markets and Islamist Power*, Oxford et al.: Oxford University Press 2017.

23 The time of writing is September 2017.

24 This study is based on material collected online and archived by the author.

the cross-over use of resources by several armed groups will be given, we shall only occasionally mention the specific Jihadi organization or group disseminating the resources.²⁵

There have been earlier attempts to build an online structure supporting jihadi operations. A study on online courses in al-Qa'ida related jihadi fora concludes²⁶ in 2013:

“Jihadi e-learning courses are a marginal phenomenon, yet they should not be ignored. While there are still very few active participants in such courses, they attract large interest among online jihadists. The quality of the courses has improved over the last few years, and there are dedicated people online who are interested in developing them further. As training in jihadi conflict areas has become difficult, more recruits are likely to try and obtain paramilitary skills before going abroad – or before attempting to carry out a terrorist attack at home. Some of these would-be jihadists might consider joining regular armed forces or private shooting clubs in their home country. A far less risky venture is to seek out jihadi training courses online because they allow the participants to remain anonymous while conducting their training.”²⁷

The turn towards the “individual jihad” in the form of lone wolf terrorism becoming famous in recent times is not new:

“Due to the extreme pressure on Al-Qaeda’s current sanctuaries abroad, Al-Qaeda leaders seem to be expanding their strategy to include so-called ‘leaderless jihad.’ The concept is not new. The jihadi strategist Abu Mus’ab al-Suri wrote and lectured on the idea back in the 1990s, and held several lecture series to trainees in jihadi training camps. The strategic concept developed by al-Suri became known as al-muqawama al-islamiyya al-‘alamiyya, ‘The Global Islamic Resistance.’ He praised ‘lone wolf’ terrorist attacks that were conducted by individuals that had no connection to Al-Qaeda Central, but who nevertheless carried out attacks supporting Al-Qaeda’s global ideology.²⁸ Individuals praised by al-Suri included El Sayyid Nusayr, an Egyptian- American who shot and killed the American-Israeli politician Meir Kahane in New York in 1990, and Ramzi Yusef, who carried out the first bombing of the World Trade Center in 1993.”²⁹

Generally speaking, lone wolf-terrorism is not merely a jihadi phenomenon and it can be found with respect to other terrorist groups too. White supremacists

25 One of the view media articles mentioning the telegram level of communication (although only using English-language sources) is Mary Ann Russon/Jason Murdock, “Welcome to the bizarre and frightening world of Islamic State channels on Telegram”, in *IB Time UK*, posted June 2, 2016 (<https://www.ibtimes.co.uk/welcome-bizarre-frightening-world-islamic-state-channels-telegram-1561186>) (accessed March 18, 2018).

26 Conclusions are to be modified for the present situation, esp., since it is no more “due to the pressure” but to a continuing process of innovation and adaptation that online activities are promoted by jihadis.

27 Anne Stenersen, “Bomb-Making for Beginners’: Inside al Al-Qaeda E-Learning Course”, in *Perspectives on Terrorism VIII* (February 2013), pp. 25–37, p. 35.

28 We would use the term theology instead of ideology in this context (see theology matters).

29 *Ibid.*, p. 26.

like Tom Metzger and Alex Curtis in the US have actually coined this term in the 1990s. Recent right-wing lone wolves are to be understood as based on certain independence with regards to their planning and operational processes. However, they are nevertheless part of a swarm connected through the mutual acceptance of a certain ideology or varieties of an ideology, facilitated via the media – especially the Internet –³⁰ and face-to-face connections.³¹ The structure of a swarm is to be detected among jihadi lone wolves whose ‘loneliness’ is a tactical means.

What apparently *is* new in the present situation, is the fact that lone wolf-resources are put online without attempting to organize online courses for tasked like bomb-making, as discussed by Stenersen. Courses are put online to allow for the acquisition of practical knowledge by letting the user study on their own and then joining the swarm and its operations. This is due to the fact that the relatively controlled environment of jihadi fora has changed to a more open environment on platforms like *telegram*.³²

Former attempts of disseminating knowledge on terrorist operations – as they are well known from the online magazine *Inspire* (and others) – have been restricted in their scope. The special issue on the package bomb, which brought down a UPS cargo plane in 2010, included a detailed technical description of the bombs used (*Inspire* No. 3 – Special Issue)³³, handling of pistols, remote control explosion, legitimizing of jihadi based on “Targeting the populations of countries that are at war with the Muslims” (all *Inspire* No.8), the praise of the “knights of lone jihad”, torching parked vehicles, causing road accidents, creating lethal poison as a means of “open source jihad” (all *Inspire* No.10), or the praise of the Boston bombings (*Inspire* No.11) (see below), all indicate an awareness of the strategic importance of individual jihadist operations for the jihadi subcultures (see below).³⁴

But there are also weapons that are as dangerous as the individual jihad, i. e. chemical and biological weapons. Here we must take the emergence of a new

30 Anders Breivik is the prime example of a right-wing milieu although the striking difference is the media framing trying to deny the influence of the right-wing extremist online milieu on his attacks (see the very instructive contributions in Rainer Just/Gabriel Ramin Schor (Hg.), *Vorböten der Barbarei: Zum Massaker von Utoya, Hamburg: Laika-Verlag 2011*).

31 Cf. Armin Pfahl-Traughber, “Das ‘Lone-Wolf’-Phänomen im Rechtsterrorismus in Skandinavien: Eine vergleichende Betrachtung von Fallbeispielen aus Norwegen und Schweden, in *Interventionen* 8 (December 2016), pp. 4–17: 16.

32 We are aware that invite links may be regarded as a restriction of access. But empirical evidence from our ongoing research shows that this actually no fundamental problem to get these files.

33 All Jihadi material quoted is archived at the Oriental Institute, University of Vienna, Austria.

34 This holds true for other contexts see Warren Hinckle, *Guerilla-Krieg in USA*, Stuttgart: Deutsche Verlagsanstalt 1971 for the readings of US-underground fighters.

group of blue-collar jihadi technicians (see below) into account we mentioned before. The overall assessment of the possible use of chemical and biological weapons by jihadists made in 2007 by Stenersen still holds true to some extent:

“Online CBW manuals and discussions indicate that jihadists display a particular interest in easily obtainable chemical agents, such as cyanide, rather than sophisticated agents that require considerable skill and resources to produce and deploy. Participants in online discussions also tend to draw ideas and inspiration from past CBW plots. While this is not surprising, it is notable that on jihadist websites, news articles of plots to use crude chemical agents are posted along with simple, do-it-yourself recipes of the same agents. The online manuals and discussion forums raise the possibility that the most imminent chemical-biological threat now comes from Al-Qaeda-inspired enthusiasts, especially those with relevant academic or professional backgrounds, rather than professional jihadist planners. That the online manuals seem too vague to result in a successful attack does not preclude the possibility that more sophisticated weapons are being developed offline.”³⁵

Looking at the technical capabilities of jihadi engineers, which has emerged in the last years in other fields (see below) “the possibility that more sophisticated weapons are being developed offline” is to be taken for granted.

A historical remark has to be made in order to stress the present state of play in jihadism research. The strategy of isolated fighters using sabotage in guerrilla warfare has already been mentioned by Alberto Bayo Garoud (d. 1967), the teacher of Fidel Castro and Ernesto Che Guevara³⁶, in Question no. 120 of his *One Hundred Fifty Questions to a Guerrilla*.³⁷ Thus, stressing the novelty of “lone wolves” can only be considered the result of a lack of historical knowledge and falling into the trap of trying to reconstruct jihadi activities without understanding basic sabotage and Guerrilla techniques. Bringing together the lone wolves acting in swarm-like collective organization, the technical capabilities of jihadi engineers, and the tradition of terrorist operations, we will have to turn to other technical innovations of jihadis. A good example of this approach to jihadism research is the case of drones.³⁸

35 Stenersen, Anne (2007), Chem-bio Cyber-class: Assessing Jihadist Chemical and Biological Manuals, in *Jane's Intelligence Review* September 2007, pp. 8–13: 13.

36 Himself learning from the North African guerrillas of Abd-el-Krim (see Er, Mevliyar, “Abd-el-Krim al-Khattabi: The Unknown Mentor of Che Guevara”, in *Terrorism and Political Violence* 27 (2015), pp. 1–23), reminding us of the network of influences in modern terrorism.

37 <http://www.latinamericanstudies.org/bayo.htm> (accessed September 25, 2016).

38 We should bear in mind, however, alternative methods of using drones, e.g., Radjawali, Irendra/Pye, Oliver, “Drones for Justice. Inclusive Technology and river-related action research along the Kapuas”, in *Geographica Helvetica* 72 (2017), pp. 17–27, Radjawali, Irendra/Pye, Oliver/ and Flitner, Michael, “Recognition through Reconnaissance? Using Drones for Counter-mapping in Indonesia”, in *Journal of Peasant Studies* 44 (2017), pp. 817–83.

Drone Wars Jihadi-Style

The issue of using drones for warfare is relevant to the discussion due to the large number of publications related to the use of drones as a weapon by IS especially. Those who have not read or seen any of the related material apart of the group's official videos may only know that IS has utilised drones as a tool for producing impressive video footage. Yet, they were also used for reconnaissance and intelligence gathering purposes and the step of using them as weapons was to be expected. As predicted, the weaponisation of drones occurred and spread throughout the year 2016. After two Kurdish soldiers were killed in the same year, this development could no longer be ignored and the Combating Terrorism Center (CTC) published the first overview on the issue in January 2017.³⁹ However, despite previous experiences the CTC report attempted to downplay the role of consumer drones whilst Jake Godin has pursued a more realistic approach, calling drones “the industrial revolution of terrorism”.⁴⁰

A very apt commentary reads: “Some here also say they don't possess enough of a skill level to do it, or that toy/hobby grade aircraft/drones will never be used by terrorist.”⁴¹ This very commentary could truly be the motto of most terrorism research trying to catch up with terrorists until it is too late. We can furthermore interpret the case of utilizing drones for Jihadi purposes as yet another example for terrorism research trying to catch up with jihadi innovations and not following the insights gained from other fields of consumerization of warfare.⁴²

IS has used jihadi-attack-drones, whilst other jihadi forces have also used them for an attack on a Russian airbase near Latakia in early 2018.⁴³ The number of drones⁴⁴ used for the attack was reported to be 13 – a small swarm. Out the

39 <https://fortunascorner.com/2017/01/31/the-islamic-states-drone-documents-management-acquisitions-diy-tradecraft/> (accessed August 07, 2017).

40 <https://www.newsly.com/stories/isis-drones-and-the-industrial-revolution-of-terrorism/> (accessed August 07, 2017). For an overview of the products of this ‘industrial revolution’ see Nick Waters, “Types of Islamic State’s Bombs and Where to find them” (https://www.bellingcat.com/news/mena/2017/05/24/types-islamic-state-drone-bombs-find/?utm_content=buffer4d8e0&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer) (accessed August 07, 2017).

41 <https://www.rcgroups.com/forums/showthread.php?2833203-Some-Here-Say-This-Kind-of-Thing-is-Untrue-and-Not-Really-Happening> (accessed August 07, 2017).

42 For a recent example of Jihadis dropping bombs from drones see the most recent files since it is an ongoing practice.

43 <https://www.almasdarnews.com/article/jihadist-drone-attacks-russian-airbase-southwest-latakia/> (accessed February 8, 2018). This source uses the word “rebels” to cover the adherence of forces participating to other jihadi forces than ISIS.

44 <https://www.almasdarnews.com/article/russian-military-shoots-13-jihadist-drones-hmay-mim-airport/> (accessed February 8, 2018).

borders of the Syrian/Iraqi area of operation, more drone attacks are to be expected. An article from September 2017 reads:

“The terror group’s technicians claim to have perfected modifications which would allow a drone to carry a devastating payload of up to 20 kg – some 20 times the current maximum. The jihadists’ online material now regularly exhorts sympathizers to use the devices to launch attacks and experts have told that a successful atrocity using a drone against countries including the UK is one of the terror group’s highest priorities.”⁴⁵

Also on a *telegram* channel entitled “Islamic State” (*al-dawla al-islāmiyya*) we could watch a series of tutorials on drones as early as in March 2016.⁴⁶ However, the use of drones by IS goes back to even 2014 and we may argue that this knowledge on the possible utilisation of drones was out there in the jihadi swarm already at very early stages – yet often ignored.⁴⁷ This spreading of information on drone-warfare within jihadi circles can be interpreted as an example of virtual leadership.

Drones are discussed in jihadi magazines (see below). In *al-Īhā‘āt al-jihādiyya*, a magazine published by the Centre for Jihadi Preachers (*markaz du‘āt al-jihād min ard al-Shām al-mubāraka*) close to the jihadi preacher al-Muhaysinī, a leading figure in the al-Qa‘ida related organizations in Syria, published some comprehensive articles on drones.⁴⁸ The first article describes the ways in which drones might be operated whereas the following article attempts to convince jihadis of its feasibility. Another interesting article in this part of the magazine discusses operational art in times of drone surveillance. By analyzing the way in which they reflect on new developments of warfare, we could easily understand how jihadist operate. In fact, this is the only way of achieving such an understanding.

Moreover, an essential aspect of this approach is to holistically consider that jihadis produce a coherent theology as discussed in the issue of *al-Īhā‘āt al-jihādiyya*. Consequentially, the following article in this magazine covers the role of women in the jihadi subculture, whilst another two-pager displays Arab calligraphy and demonstrates the importance of the Arabic language for the jihadi *imaginaire*. Jihadi magazines are still an important part of jihadi communication even at operational level. This aspect of jihadi communication will be discussed later in this chapter.

This communication ultimately contributes to the overall coherence of jihadi

45 <https://inews.co.uk/news/uk/drone-terror-attack-jihadists-britain-matter-time-security-sources-warn/> (accessed February 8, 2018).

46 See *telegram.me*, channel *al-dawla al-islāmiyya*, March 24, 2016.

47 For a first report on the ISIS drone program see http://www.icsve.org/research-reports/isis-drones-evolution-leadership-bases-operations-and-logistics/#_ftn55 (accessed February 8, 2018).

48 *al-Īhā‘āt al-jihādiyya* No.3 (Dhu l-hijja 1437h), pp. 61–67.

virtual guidance and is another example of the need of a historical understanding of terrorist operations. A lack of historical knowledge means being surprised again and again by jihadi operations in reality.

Virtual Guidance

A “community” or a “network” has been identified as the source of most terrorist attacks. The attempt to identify a “community of criminals” as the force behind the anarchist attacks in France can be seen as an example for a learning network – some kind of an emergent swarm – promoting ‘illegal’ actions in the 1890s. This “community of criminals” allows us to understand how a diffuse network of individuals, journals and small groups of activists have been (mis-) understood as an organization with permanent internal structures. This situation in France at the end of the 19th century and at the beginning of 20th century may serve as an example for a learning network – again, a kind of emergent swarm – promoting ‘illegal’ actions without a permanent internal structure.⁴⁹ A situation we may find to be rather similar to the present circumstances.⁵⁰

Although some of the material analysed in this chapter has been disseminated for predominantly organizational purposes, we cannot deny the importance as much as quantity of religious-theological resources online and on conservative Islamic online platforms. Although the material presented here is operational in nature, technical, and military in general, the overall framework of virtual leadership is still based on a theology of violence. This theology of violence produces the coherent way of thinking that is needed for terrorist attacks and the framework within which operatives guide the attackers who in turn carry out these ideas.⁵¹ This coherent theological framework is also distributed across several virtual platforms – first and foremost *telegram* – and create the cohesion needed for Jihadi operations. The virtual guidance aspect of jihadi communication is not to be ignored unless research will not fall into the trap of beginning again after any new jihadi operation occurs. One of these new modes operations has been called virtually planning or remote control terrorism.

49 For a detailed account of the development of the illegalist anarchist networks in France at that time in a leftist perspective see Richard Parry, *Die Bonnot-Bande*, Vienna: bahoe books 2017².

50 For an account by a revolutionary socialist see Holitscher, Arthur, *Ravachol und die Pariser Anarchisten*, Frankfurt a. M.: Verlag Freie Gesellschaft s. d. (Reprint of the first edition Berlin 1925), pp. 78–83.

51 Lohlker 2016a, 2016b, 2016c, and 2017 for the larger religious milieu.

Virtually Planning or Remote Control Terrorism

This is another Internet-based mode of operation, which can often be perceived as a lone wolves attack at first glance.⁵² Later on, one can uncover direct communication lines between the attacker and jihadist organizations. For such operations the terms “remote control”, “virtual plot” or “virtual planning”⁵³ are commonly used. In the Hyderabad plot of 2016, for instance, the structures associated with the virtual planning of operations became visible.⁵⁴ In said plot, a promising young jihadi recruit, willing to carry out attacks, had been identified. Virtual planners guided him through every step of the plan, which was thought to be the Islamic State’s first attack in India. The planners also helped recruiting other attackers, organized the delivery of weapons and chemicals from Syria to India in order to make explosives. Lastly, they also arranged for the logistics behind the attack and for the delivery and pick up of weapons and explosives. In order to achieve this, they had to remain in constant connection with the attackers until shortly before they got arrested.

“In the most basic enabled attacks, Islamic State handlers acted as confidants and coaches, coaxing recruits to embrace violence. In the Hyderabad plot, among the most involved found so far, the terrorist group reached deep into a country with strict gun laws to arrange for pistols and ammunition to be left in a bag swinging from the branches of a tree. For the most part, the operatives who are conceiving and guiding such attacks are doing so from behind a wall of anonymity. When the Hyderabad plotters were arrested last summer, they could not so much as confirm the nationalities of their interlocutors in the Islamic State, let alone describe what they looked like. Because the recruits are instructed to use encrypted messaging applications, the guiding role played by the terrorist group often remains obscured.”⁵⁵

But the recruitment process may also work in another way:

“In early August, Kassim posted an audio recording on Telegram in which he instructed future attackers to send him a video message prior to their operation. According to Belgian journalist Guy Van Vlieden, who first reported on the recording, Kassim specified that the video ‘must contain an oath of allegiance and a message of dawa’ that encourages others to carry out attacks. Kassim promised that once he received the video

52 We may add the cases of persons with psychological problems following some elements of online and media discourses driving them to violent action.

53 Bridget Moreng, “ISIS’ Virtual Puppeteers: How they Recruit and Train ‘Lone Wolves’”, in *Foreign Affairs* (<https://www.foreignaffairs.com/articles/2016-09-21/isis-virtual-puppeteers>) (accessed June 9, 2017) (posted September 21, 2016).

54 I am following the report by Rukmini Callimachi, “Not ‘Lone Wolves’ After All: How ISIS Guides World’s Terror Plots from Afar”, in *The New York Times* (https://www.nytimes.com/2017/02/04/world/asia/isis-messaging-app-terror-plot.html?_r=0) (accessed June 9, 2017) (posted February 4, 2017).

55 See Callimachi, “Not ‘Lone wolves’.”

he would have it translated and broadcast. ‘I am involved in this area, which means that in two seconds they will be translated Arabic-French,’ he explained in his Telegram message. ‘They will be transmitted to the entire world.’⁵⁶

The report on the Indian case demonstrates that there is a wide range of activities beyond the European (and the US) assessment on the deliberate planning of jihadis – despite some organizational restructuring:

“As has become clearer over time, ISIS’ strategy for external operations in Europe is not haphazard – its methods are deliberate and carefully organized under the direction of one of its wings, the Amn al-Kharji.”⁵⁷

This holds true for the organized networks and for groups guided by a central body of IS. However, there are additional activities connected to IS, AQ, and others. There

“are fundamental differences between centrally planned operations (such as the Istanbul airport attack) and attacks coordinated by virtual planners, with the latter generally being less sophisticated and less lethal. But it is remarkable, and worrisome, how many of the Ramadan attacks [2016] are clearly linked to the Amn al-Kharji. And the group’s ability to use encrypted online communications to interact with operatives abroad leaves open the possibility of links that have not yet been discovered.”⁵⁸

Taking into account the elements of virtual planning and guidance, there are still other terrorist attackers who operate individually and whom the coherent ideologies of violence⁵⁹ – IS or al-Qa’ida style – may have inspired.⁶⁰ These individual attackers are in need of knowledge and technical resources to carry out their operation. Although there are many non-jihadi resources available online, jihadis put other Arabic-language resources online.

Technical Resources

Some of the resources published online date back to the beginning of Jihadi transnational operations in Afghanistan. We can find five volumes⁶¹ of the

56 See Moreng, “ISIS’ Virtual Puppeteers.”

57 See Moreng, “ISIS’ Virtual Puppeteers.”

58 Daveed Gartenstein-Ross/Nathaniel Barr, “Bloody Ramadan: How the Islamic State Coordinated Global Terrorist Campaign”, in *War on the Rocks* (<https://warontherocks.com/2016/07/bloody-ramadan-how-the-islamic-state-coordinated-a-global-terrorist-campaign/>) (accessed June 9, 2017) (posted July 20, 2016).

59 For this concept see Rüdiger Lohlker, *Theologie der Gewalt. Das Beispiel IS*, Vienna: facultas 2016.

60 This word is intentionally used to remind the reader of the semantics of the magazine of al-Qa’ida titled *Inspire*.

61 The volumes were published electronically in 1424 hijri.

“Encyclopaedia of Large Weapons” (*mausū’at al-asliha al-kubrā*) about the handling of i. e. machine guns, mortars etc. published by the “Bureau of Services” (*maktab al-khadamāt*) and the “Directorate of Training Camps and Frontiers” (*qiyādat al-mu’askarāt wa’l-jabahāt*) in the Taliban-Islamic Emirate of Afghanistan. The “Encyclopaedia of Large Weapons” is dedicated to Usāma bin Lādin, who contextualised it within the creation and stabilization of a jihadi tradition.

One questions comes to our mind. Is the republishing of such material due to a mere historical interest in somewhat out-dated material? We may consider this to be partly true; but on the other hand, when thinking about the highly diverse global weapons market, knowing how to handle a Sten gun may still turn out to be useful...

A telegram channel⁶² started on the 25th of November 2016, focuses on such operational issues.⁶³ It starts with a post on ammunition, a description of the Russian sniper rifle *Dragunov*, some guidelines for fighters on trench warfare, mortars, anti-tank weaponry and missiles. Also, we can find the biography of an early Muslim master-spy; yet again another aspect of Jihadi reliance on early Islamic history in order to create an *imaginaire* supporting the theological cohesion.

Furthermore, the publishers provide us with an example of a subterranean tunnel system taken from the Indochina war including plans of the structure of this system. A post referring to this illustration stresses the high number of losses by the US-troops in Vietnam.⁶⁴ Lastly, a text of twenty pages demonstrates how to launch anti-tank operations, whilst another post contains a tiny spy drone.

In this channel we can also find the reminder that “it is true that god obliged us to lead jihad, but obliged us to prepare for it...”⁶⁵ and the descriptions for practical preparations within theological programs of jihadism.

Several other posts are dealing with Kalashnikov rifles,⁶⁶ whereas cross-organizational references are available from Jihadi online sources. For instance, a series of videos by an offshoot of the Free Syrian Army (FSA)⁶⁷ offers an online course on urban warfare. Amongst the videos we can find the content on: secure handling of guns (video No. 02), asymmetrical sniping (video No. 034), physical fitness (video No. 059) using and cleaning of handguns (video No. 066), a sub-

62 At the time of writing having 484 members.

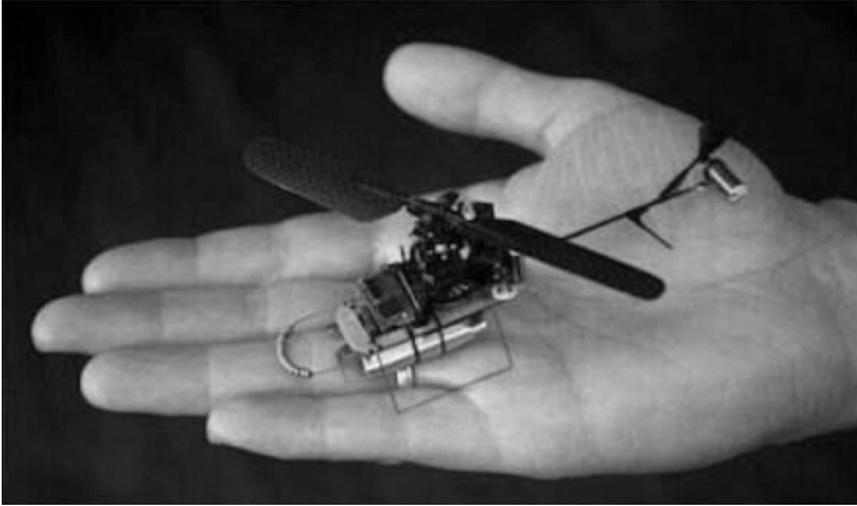
63 *Taktikāt ‘askariyya: ma’lūmāt yahtajuhā al-mujāhidīn*.

64 A more regional approach exploring the experience from the tunnels in and out of Gaza and its application in Syria is to be found in “al-Anfāq bayna al-Shām wa-Ghazza”, in *al-Īhā’āt al-jihādiyya* No.3 (Dhu l-hijja 1437h), pp. 56–59.

65 *Taktikāt ‘askariyya: ma’lūmāt yahtajuhā al-mujāhidīn*, telegram.me, December 1, 2016.

66 See for a detailed history C. J. Chivers, *The Gun: The Story of the AK-47*, London et al.: Penguin 2011.

67 We will not discuss here the present status of the FSA, its affiliations, etc., a discussion that is futile in our context.



Spy Drone

terrestrial (video No. 072), self defense (video No. 076; several additional videos), handling and constructing a flamethrower operating with napalm (video No. 077).

Without assessing the practicability of the information provided in these videos we could consider them a resource for, a) fighters on the ground in Syria, and b) for) fighters worldwide who are seeking information and training in urban warfare. Also, referencing non-Jihadi resources has happened in earlier periods of Jihadi online training.

The aforementioned videos were produced at the beginning of the Syrian uprising. Based on the general title the videos are intended for “the protection of the peaceful Syrian revolution” – this part of the title was, however, dropped in later videos. Having said this we may turn to guides to produce explosives; the importance of IEDs we mentioned before.

Explosives

Since the Afghanistan period of violent jihad we are aware of the (offline) courses on explosives, which have been transferred to other media outlets like jihadi magazines in the real world or in cyberspace. At first we will have to take a look into jihadi magazines as an important hub of jihadi communication and part of the collective organizational process of the jihadi swarm.

Magazines

We have introduced the idea of collective organizers with a quotation on the role of a newspaper in the beginning of this chapter. Hence, it may be appropriate to turn our attention to jihadi magazines in order to understand the operational aspects of jihadism, which are not limited to propaganda but can also include action.

Jihadi magazines have a long tradition, which dates back to the early 2000s. The most prominent publications of this time period are the Saudi “Voice of Jihad” (*sawt al-jihād*)⁶⁸, a religio-theological magazine, and “al-Battar⁶⁹ Training Camp” (*mu’askar al-battār*) (see below), which was once called “a representative example of the way insurgents are using the internet to spread their ideas.”⁷⁰ This description clearly demonstrates the close relation of religious and military-operational ideas at the very beginnings of modern jihadism. By looking into some of these journals we shall attempt to analyse this dimension of jihadi knowledge.⁷¹

The Journal *al-Wa’d al-ākhir*⁷², one of the lesser known jihadi magazines as it is published in Arabic published a series of articles on the “engineering art of explosives” (*handasat al-mutafağğīrāt*) in their general section on “military culture” (*al-taqāfa al-‘askariyya*). The first article provides us with a short introduction on the various categories of explosive “for a general study of [explosives] in respect of their use and application”.⁷³ The second article deals with hollow charge ammunition used in RPG-7, RPG-29, or in the 9M133 Cornet anti-tank guided missile and with some remarks on their effective use.⁷⁴ The third and fourth article describes cluster bombs used against light to medium armed transporters, arriving at the conclusion that they are not useful against civilians

68 The first – and up to now only – comprehensive study of this magazine is Nico Prucha, *Die Stimme des Dschihad*, Hamburg: Dr. Kovač 2010 with an introduction by the author of this chapter.

69 The name is referring to a sword of the prophet Muhammad, another reference to the religio-theological aspect of jihadi thought.

70 <http://misc.survivalism.narkive.com/EnEmtHRr/mu-askar-al-battar-al-queda-training-manual> (accessed February 6, 2018).

71 A recent attempt of analysis focussing only at magazines in English (and one in English and Somali, i. e., the English language part of it) ignoring the much more important Arabic language magazines is Maura Conway/Jodie Parker/ Sean Looney, Online Jihadi Instructional Content: The Role of Magazines, in Conway, Maura et al. (eds.), *Terrorists’ Use of the Internet: Assessment and Response*, IOS Press, Amsterdam 2017, pp. 182–193. The focus on bomb-making is erroneous. The conclusions are insufficient as it is demonstrated below.

72 Another religious reference in the title. The magazine is covering the Palestinian jihadi movement. The Internet site has the transliteration wrong.

73 *al-Wa’d al-ākhir* No. 1 (Jumāda al-ākhirā 1436), p. 13.

74 *al-Wa’d al-ākhir* No. 2 (Rağab 1436), p. 17.