

The US Army War College Quarterly: Parameters

Volume 46
Number 3 *Parameters Autumn 2016*

Article 9

Fall 9-1-2016

Using Information in Contemporary War

James P. Farwell

Darby J. Arakelian

Follow this and additional works at: <https://press.armywarcollege.edu/parameters>



Part of the [Defense and Security Studies Commons](#)

Recommended Citation

James P. Farwell & Darby J. Arakelian, "Using Information in Contemporary War," *Parameters* 46, no. 3 (2016), <https://press.armywarcollege.edu/parameters/vol46/iss3/9>

This Article is brought to you for free and open access by USAWC Press. It has been accepted for inclusion in The US Army War College Quarterly: Parameters by an authorized editor of USAWC Press.

Using Information in Contemporary War

James P. Farwell and Darby J. Arakelian

© 2016 James P. Farwell and Darby J. Arakelian

ABSTRACT: The Islamic State of Iraq and the Levant (ISIL) has sophisticated propaganda capabilities and expertise that can be turned against it. The United States should draw upon its expertise in political communication and psychological operations as well as adapt Russian precepts of operational shock and reflexive control to complement traditional military approaches.

The requirements for defeating the Islamic State of Iraq and the Levant (ISIL) have many facets: a coherent policy, a confluent political strategy, traditional military and kinetic operations, and effective information warfare (IW) strategies. Despite their dominant role in ISIL's playbook, IW strategies are too often ignored. The group has used information warfare to expand its battlespace beyond the borders of Syria and Iraq to every television set on the planet—reaching anyone with Internet access.¹ American IW response must be as aggressive and strategic as kinetic military operations.

Congress recognized the need to broaden military authority to counter ISIL messaging after US Special Operations Command commander General Joseph L. Votel argued the Department of Defense required more authority to counter recruitment and reduce the flow of foreign fighters.² This article, therefore, focuses on communication strategies and tactics the US military might employ in close coordination with kinetic operations as well as political and diplomatic efforts. We first examine the broader precepts governing information warfare, then apply them to define potential options for defeating ISIL.

Fundamental Assumptions about Winning the War

What steps will achieve battlefield dominance against ISIL in information warfare? One key lies in aligning a counter-ISIL narrative with our military objectives and the political goals of regional allies, which

1 Rupert Smith, *The Utility of Force: The Art of War in the Modern World* (London: Vintage Press, 2008). Smith argues the future threat environment is defined by engagements (no kinetics) and conflicts (kinetics) that take place in areas in which combatants and noncombatants are intermixed, not on conventional battlefields where opposing armies confront one another.

2 "Hearing on National Defense Authorization Act for Fiscal Year 2016," March 18, 2015, https://fas.org/irp/congress/2015_hr/socom-2016.pdf; and "DoD Gets Go-Ahead to Counter Islamic State Messaging," Federation of American Scientists, November 30, 2015, <https://fas.org/blogs/secretcy/2015/11/dod-counter-is/>. In its FY2016 Defense Authorization Bill, signed into law by President Barack Obama on November 25, 2015, Congress ordained: "The Secretary of Defense should develop creative and agile concepts, technologies, and strategies across all available media to most effectively reach target audiences, to counter and degrade the ability of adversaries and potential adversaries to persuade, inspire, and recruit inside areas of hostilities or in other areas in direct support of the objectives of commanders."

requires defining assumptions about US intentions.³ First, battlefield victories—including victory in the information environment—are vital. Second, taking sides in the long-standing tensions between Sunnis and Shī'ites or making US policy the issue in the conflict should be voided. Third, the prominent public role Muslims should take in articulating a counter-narrative that discredits and delegitimizes the religious and political dogma of ISIL should be recognized. Public demonstrations denouncing ISIL require words and deeds to contribute significantly to success: Western countries should provide behind-the-scenes leadership and support, but Muslims must lead.

The United States must clearly define the stakes, narratives, themes, and messengers, requiring careful target audience analysis (TAA) for language and content.⁴ No single narrative or messenger fits every strategy. Components must be consistent, coordinated, and tailored to each target audience. Communication strategies must respect current political and military realities. Iraqi Sunnis comprehend ISIL brutality; however, they will not risk their lives to destroy ISIL to restore the *status quo ante* of Shī'ite repression.

A winning IW strategy requires fresh approaches. Western commercial advertising methods do not work for politics or for changing behavior in military conflict zones. Consumers represent groups who have already decided to purchase. Brand advertising seeks to increase the *hit rate* of customers in a target group. A successful commercial ad campaign may change the minds of 10 percent of customers. But as Steve Tatham points out, a “10-percent change in the behavior of an insurgent group or hostile community is highly unlikely to be game changing in the context of the wider conflict.”⁵ The United States should not confuse political communication with commercial advertising. Branding and commercial advertising are the kiss of death for information warfare.

Strategic Considerations for Information Warfare

We define communication as words, deeds, images, or symbols that shape public opinion and attitudes to change behavior in order to achieve specific effects or end-states.⁶ Information warfare must discredit and delegitimize ISIL, destroy the ideological pillars upon which its appeal rests, reveal its leaders are hypocrites, and drive the message that ISIL faces inevitable defeat and does not represent the winning side.

Information warfare can help undercut ISIL's center of gravity, whatever enables a party to keep on fighting, in this case the will and decision-making of ISIL. We must subvert and destroy that will, which means attacking the core claims of ISIL:

3 James P. Farwell, *Persuasion and Power* (Washington, DC: Georgetown University Press, 2012), 145.

4 This article suggests some messages or narratives. Each needs to be phrased in proper Arab language or dialects so testing yields dependable answers. Research for story, narrative, theme, and message must be keyed to a clear comprehension of religious, cultural, psychological, linguistic, and psychological factors that shape behavior, not merely attitudes, among target audiences. For a good discussion of these, see Dr. Steve Tatham and Keir Giles, *Training Humans for the Human Domain* (Carlisle, PA: US Army War College Press, November 2015).

5 Dr. Steve Tatham, *US Governmental Information Operations and Strategic Communications: A Discredited Tool or User Failure? Implications for Future Conflict* (Carlisle, PA: US Army War College Press, December 2013), 33–35.

6 Farwell, *Persuasion and Power*.

1. Controlling territory governed through a new Caliphate
2. Contrasting corrupt, apostate governments with those of “religious” integrity
3. Rejecting the artificial Middle Eastern borders drawn by the Sykes-Picot Agreement (1916), which fuel the revolutionary appeal for a new Arab nationalism⁷
4. Protecting Sunnis against Shi‘ite repression
5. Proclaiming inevitable victory ordained by God⁸

ISIL spreads its narratives, themes, and messages through social media and battlefield results. Information warfare conducted by coalition allies must discredit the claim ISIL advances its notions of theology or justice are true to Islam.⁹ Muslim religious leaders must lead the effort. While noting that a grand counter-messaging campaign lies beyond the scope of this comment, this article focuses on IW support for US military strategies, operations, and tactics.

The Maxwell Message Grid, a four-dimensional analysis tool, frames perceptions ISIL has about itself and its enemies as well as what enemies of ISIL say about themselves and their messages beyond the subjective views communicated through narratives, themes, and messages. Applied rigorously, the grid can help achieve persuasive information dominance.¹⁰ Moreover information superiority, “the imbalance in one’s favor (relative advantage) in the information domain that is achieved by being able to get the right information to the right people at the right time in the right form while denying the adversary the ability to do the same,” informs operators while minimizing risks of information compromise and helps throw adversaries off balance.

Advanced information technology provides a competitive edge by fostering collaboration and enhancing awareness of relevant, accurate information.¹¹ Sharing knowledge provides a real-time, accurate picture of ground realities. Key channels for achieving information dominance include social media, cyberspace, grass-roots activities and broadcasts, as well as political actions and statements by key communicators.¹² Even though defeating ISIL requires a whole-of-government approach, US government allocation of task as well as the debate between advocates of

7 *History.com This Day in History*, <http://www.history.com/this-day-in-history/britain-and-france-conclude-sykes-picot-agreement>. This claim of arguably erasing the border between Syria and Iraq was among his most popular actions among its supporters.

8 Abetted by soldiers and security operatives who once served Saddam Hussein, ISIL has enhanced its lethality in combat. See Liz Sly, “The Hidden Hand behind the Islamic State Militants? Saddam Hussein’s,” *Washington Post*, April 4, 2015, https://www.washingtonpost.com/world/middle_east/the-hidden-hand-behind-the-islamic-state-militants-saddam-husseins/2015/04/04/aa97676c-cc32-11e4-8730-4f473416e759_story.html. Abetted by soldiers and security operatives who once served Saddam Hussein, ISIL has enhanced its lethality in combat.

9 Led by Majid Nawaz, the Quilliam Foundation has articulated some of the most actionable ideas for achieving this goal on their website at Quilliamfoundation.org.

10 Named after the distinguished political consultant John Maxwell who devised it.

11 David S. Alberts et al., *Understanding Information Age Warfare* (Washington, DC: Command and Control Research Program, 2001), 53–54, 139.

12 The Anbar Awakening that proved vital to success during the Iraq 2003 War illustrates this notion.

information warfare—such as ourselves—and patriotic, but misguided traditionalists in military public affairs who oppose the idea of using the military for influence operations are beyond the scope of this article.¹³

Forging a Strategy

A successful communication strategy requires effective target audience analysis that frames the story and narratives using credible voices and channels which also create and drive themes and messages to discredit the enemy. Information warfare campaign planning should start with target audience analysis.

Target Audience Analysis

Target audience analysis highlights stories, narratives, themes, and messages that strike a responsive chord with the intended audience. Each aspect of the analysis is articulated in language that resonates with the audience and respects religious, cultural, psychological, linguistic, and psychological factors that affect the audience and shape not only their behavior but also their attitudes.¹⁴ While reason persuades, emotion motivates. Messages designed to shape behavior, therefore, should appeal to emotions and be rooted in values, which are critical to human decision-making and behavior. Effective messages “resonate with information already stored within an individual and thereby induce the desired learning or behavioral effect. Resonance takes place when the stimuli put into our communication evoke *meaning* in a listener or viewer.”¹⁵

Communication strategy communicates information in ways that shape and influence desired behavior. A message is not the starting point for communicating but “the final product arrived at after considering the effect we hope to achieve and the communication environment where people will experience our stimuli.”¹⁶ How does one reach an audience? The maxim “frequency = penetration = impact” helps to answer the question.

Correct target audience analysis provides insight into the emotional impact of communication. Microsegmenting audiences helps distinguish

13 Farwell, *Persuasion and Power*. Actually, as Mark Kimmitt’s political strategy in handling the Abu Ghraib debacle and the public affairs fiasco that surrounded the “rescue” of Jessica Lynch in Iraq illustrate, military public affairs does not flinch from the kind of influence operations many public affairs officers deny sanctioning. In our view, their approach constrains the ability to defeat enemies in the new information age and inadvertently constitutes a prime asset enemies can exploit for their advantage. Political and corporate communication explicitly aim to influence and change behavior. The media understands and expects that and discounts the view expressed by many public affairs officers that they avoid influence or manipulation.

14 Tatham and Giles, *Training Humans for the Human Domain*.

15 Tony Schwartz, *The Responsive Chord* (New York, NY: Anchor Books, 1973), 24–25. The classic example was the “Daisy” television spot aired just once in 1964 for President Lyndon Johnson, in which a little girl picks leaves off a daisy. The frame freezes, the camera zooms into her eye, a narrator counts down, and there is a nuclear explosion. The spot worked because it brilliantly crystallized deeply held fears and doubts about Senator Barry Goldwater. While that involved American politics, the principles that governed the success of Schwartz’s famous strategy apply to Iraq-Syria and other conflicts. By analogy, Muslims who criticize a leader as a pharaoh need not explain further. People understand the critics mean a tyrant and is “arguably the most prominent narrative archetype in the Qur’an.” See J. R. Halverson, H. L. Goodall Jr., and S. R. Corman, *Master Narratives of Islamist Extremism* (New York: Palgrave Macmillan, 2011), 28.

16 *Ibid.*, 26.

how communication—the process by which communicators transmit stimuli (usually verbal)—can modify the behavior of target audiences. This analysis is about who says what to whom and with what effect.

Several tools are available for analyzing target audiences. The military favors polling and focus groups to help examine the impact of messages and strategies among base audiences whose opinions are hard and fast and swing audiences whose opinions can be moved. Polling provides statistical data across demographic and regional groups to help ascertain what must be said or not said. Polling can yield a picture in time of the dynamics of a strategic situation, but as a snapshot in time, the data can become quickly obsolete. Polls are clumsy for ascertaining what communication motivates behavior or evokes an emotional response.¹⁷ Poorly framed questions can produce misleading results. Focus groups explore participants' concerns in their own words, determine their intensity of interest, and discover the sources of their ideas and opinions; however, the results cannot be projected onto a larger universe.¹⁸ Focus groups are useful in a limited context of understanding what language to use in driving a message.

Volumetrics monitor media and support social media analysis, but they do not measure the emotional impact of statements. We stress reason persuades, but emotion motivates.¹⁹ No correlation exists between sentiment analysis and identifying emotional response to statements, actions, or images.²⁰

The best target audience analysis tools measure emotion and motivation and combine those results with quantitative analysis, innovative technology that employs information theory in real time to identify key communicators and assess the impact statements have on their emotions and motivation. In fact, emotional metrics correlate strongly with the likelihood of violent action with such certainty that specific emotional affinity scores correlate strongly with recruitment into violent extremist organizations. Metrics cross the emotional vectors of grief to ecstasy and loathing to admiration as well as the motivational vectors of apathy to attention and calm to panic. The intersection of emotional and motivational responses generates inclination toward behavior and changes in that behavior.²¹

17 Steve Tatham argues polls “are just not accurate predictors of real behavior.” Steve Tatham, *Using Target Audience Analysis to Aid Strategic Level Decisionmaking* (Carlisle, PA: US Army War College Press, August, 2015), 8. Tatham is acutely insightful about target audience analysis, but that statement over-generalizes. Properly used, polling can be very relevant in predicting behavior, depending on the context in which it is employed.

18 Interview with Celinda Lake of Lake Research, November 20, 2015.

19 For example, see Schwartz, *The Responsive Chord*; Neville Bolt, *Violent Image: Insurgent Propaganda and the New Revolutionaries* (New York: Oxford University Press, 2012); and Farwell, *Persuasion and Power*.

20 Richard LaPiere, “Attitudes vs. Actions,” *Social Forces* 13, no. 2 (December 1934); and Martin Fishbein and I. Ajzen, *Belief Attitude, Intention, and Behavior: An Introduction to Theory and Research* (Boston: Addison-Wesley, June 1975). Attitudes can measure favorability but this factor does not ascertain emotional response or predict behavior; and *Ibid.*, chapter 8.

21 For more on the subject of emotions, violence, and the psychotherapy process, including information theory and Plutchik's Wheel, see the research of Dr. Robert Plutchik. For more on identifying key communicators and the emotional and motivational impact their messages have on micro-segmented audiences and an advocate's view on the use of “multisource, scientifically verified, diagnostic methodology undertaken in-country and in the local language used to identify specific motivations for behavior,” see Tatham, *Using Target Audience Analysis to Aid Strategic Level Decision Making*, 26.

The values-laddering approach, pioneered by the late Richard Wirthlin, is difficult to employ in a conflict zone, but applies when surveying a proxy audience, such as refugees or exiles, and in nonconflict zones. Wirthlin assessed decision-making by identifying the attributes of issues, the consequences associated with them, and the beliefs—personal and societal motivations—that bestow specific importance and meaning, which are essential to forging narratives, themes, and messages that strike a responsive chord.

Opinion researcher and former Wirthlin associate, Mike Dabadie, suggests effective target audience analysis helps:

1. Reinforce the network of positive attributes, consequences, and values embodied in narratives, themes, and messages
2. Refocus the links between attributes and consequences or introducing new attributes or consequences that strengthen our posture and weaken that of hostile parties
3. Redefine potential weaknesses to be perceived as strengths
4. Reframe adversary's strength to be perceived as a weakness
5. Redirect attention from an adversary's strength to its weakness
6. Remove an adversary's strength by showing strength does not exist²²

Decisions have rational and emotional aspects. Perceptions have positive and negative dimensions. Effective strategy leverages the positives and neutralizes the negatives. Context affects choices so strategy must match context. People do not make decisions in a linear, ordered manner; therefore, strategy must consider ways to engage target audiences in adjustable ways.²³

No matter how sound a message, it will fail unless communicated by credible sources through credible channels. Persuading someone to change their beliefs, especially those rooted in cultural practices and established through respected voices, is difficult. Audience attention, comprehension, receptivity, and retention of a message varies. Whether audience members believe they have the power to decide their own actions or other parties, such as ISIL, control their actions matters. Existing beliefs, life experiences, family, culture, social context, class, cognitive biases, and, above all, values guide the decision process.²⁴

Values—the emotional criteria people use to determine the importance of, give purpose to, and motivate individual action—are culturally contingent. Increasingly, people ask how decisions affect them personally, how choices benefit them, and how choices affect society. In Western cultures, the decision context tends to be more about “me” (individualism). In other cultures—including the Middle East—decisions are more

22 Interview with Mike Dabadie, November 21, 2015.

23 Ibid.

24 These include belief bias—an overdependence on prior knowledge in arriving at decisions, hindsight bias—the tendency to readily explain as inevitable events once they have happened, omission bias—the propensity to omit information perceived as risky, and confirmation bias—the belief people observe what they expect. See Cindy Dietrich, “Decision Making: Factors that Influence Decision Making, Heuristics Used, and Decision Outcomes,” *Inquiries Journal* 2, no. 2 (2012); K. E. Stanovich and R. F. West, “On the Relative Independence of Thinking Biases and Cognitive Ability,” *Journal of Personality and Social Psychology* 94, no. 4 (2008): 672–95; and S. Nestler and G. von Collani, “Hindsight Bias, Conjunctive Explanations and Causal Attribution,” *Social Cognition* 26, no. 4 (2008): 482–93.

about “us” (collectivism)—tribe, family, and clan. Pluralism is rising around the world. To drive (or avert) motivation, we must understand whether decisions are made based on how actions affect the individuals or the group—or both.

Framing Narratives

Narratives explain who you are, what you are doing, your cause, how you pursue it, and what it means for target audiences.²⁵ Narratives bind together players, actions, and objectives in related stories so audiences can make sense of events. Often widely shared and repeated, events woven together may be deeply embedded in culture and serve as common knowledge for the society. The narrative expresses ideas about what people should or should not do and what rewards or penalties a particular action may produce, forming a basis for arguments.²⁶ Circulating in social and political environments, narratives create a landscape that embrace a complex array.²⁷ Different narratives may resonate differently with each target audience, thus, the development of ISIL and coalition narratives requires testing.²⁸

Themes and Messages

Themes and messages flow from story and narrative. Certain messages, which can be formulated in many ways, are worth testing to redefine, refocus, reframe, and redirect ISIL narratives, themes and messages. Testing can also reinforce our themes and messages and determine if we are achieving our goals to undermine, discredit, and delegitimize ISIL.

Several messages are worth testing. One is that ISIL is doomed.²⁹ Its recruits apparently believe in inevitable victory, but what is the impact on recruiting if followers and fence-sitters decide the group faces inevitable defeat?

Another is women are leading the fight against ISIL. Some reports claim the group believes being killed by a man opens the path to heaven,

25 Farwell, *Persuasion and Power*, 163–64.

26 Halverson, Goodall Jr., and Corman, *Master Narratives of Islamist Extremism*, 182.

27 Narratives share story elements, cultural reference, and a rhetorical desire to resolve a conflict by structuring audience expectations and interpretations. See D. L. Bernardi, P. H. Cheong, C. Lundry, and S. W. Ruston, *Narrative Landmines* (New Brunswick, NJ: Rutgers University Press, 2012).

28 One coalition narrative worth testing might be: “ISIL leaders are mercenaries, terrorists, sub-humans that use terrorism and accuse everyone of blasphemy.” Another might be: “ISIL leaders are cowards. They hide while sending followers to die. While Arabs are sent to the front, Western thrill-seekers get special privileges—cars, good housing, food, and are kept safe. ISIL promises a good life. But look around. In the streets, garbage piles up uncollected, the poor scavenge for scraps, women and children have no food, water is undrinkable, disease is on the rise. They do not respect good Islamic principles to help others. Its Caliphate is a fraud and doomed. We need new leaders we can trust to provide real opportunities and a better life.” An ISIL narrative might be: “Today once again your sons and clerics and the faithful people in these circumstances are fighting for a Caliphate against non-Muslims, apostates, and infidels who have demolished Arab homes and kicked Arabs out. ISIL is serving Islam. If you do not do anything else, at least support your Sunni families and sons, and do not be tricked by the false propaganda of non-Muslim enemies.” Each needs to be tested for content, language, and resonance with each target audience. These are two of many possible narratives, from which flow themes and messages. Both narratives reflect Tony Schwartz’s insight that the most effective narratives and messages avoid providing new information or attempting to change minds. Instead they tap into beliefs, attitudes, and opinions already held and make those relevant to an argument or message.

29 This presumes ISIL loses more battles. If they do not, none of this matters.

while being killed in combat by a woman is a ticket to hell.³⁰ The exploitation of that fear is worth assessing. Could messages highlight the role of females as battlefield leaders, aircraft pilots, and drone pilots and accord women maximum credit for killing terrorist fighters motivate ISIL fighters—not renowned for their respect or support for gender equality—to stiffen their resolve? Possibly, which is the point of testing.

We should examine ISIL's perverse exploitation of women. The Quilliam Foundation discounts the "jihadi bridge" concept as lacking nuance. It notes the organization offers women empowerment, in noncombatant roles; deliverance, using religious justification to oppose gender equality; participation in building a state—especially for teachers, doctors, and nurses; and piety by addressing claims to divine credibility and thus a theological imperative for women to make *hijrah* to join ISIL.³¹ Accounts of abuse of women by ISIL may offer potential.

Also worth testing is the message that ISIL leaders are hypocrites. Not accidentally, the Prophet Muhammad constantly labeled his opponents hypocrites.³² As Jessica Stern and J. M. Berger point out, ISIL engages in sexual abuse, sexual slavery, rape of women and men, and execution of gay men by rape while promoting puritanical virtue.³³ What impact might painting these leaders as cowards who hide from fighting, who lie to followers, and who cannot be trusted have?³⁴

A message is needed to show the solidarity of the many Muslims and non-Muslims across the world who agree ISIL is not Islamic. They need a message to show solidarity. Observers like Graeme Wood have cogently argued the group holds carefully considered beliefs well rooted in Islam.³⁵ He contends their ideology is drawn from tangible issues, like currency and education, as well as intangible issues, like *twahid* (oneness of God) and *al-wal' w'al bara* (loyalty and disavowal).³⁶ Still, many Muslim scholars have denounced ISIL as not Islamic.³⁷ These ideas should be tested for resonance and application. Does the concept of a solid international coalition comprised of nations and individuals from different

30 Bob Crilly, "ISIL Fanatics 'Fear Being Killed by a Woman Will Deprive Them of Virgins in Paradise,'" *Telegraph*, September 20, 2014; and Geoff Earle, "ISIS Fighters Terrified of Being Killed by Female Troops," *New York Post*, September 19, 2014. Both stories source that to Representative Ed Royce, who chairs the House International Relations Committee.

31 Haras Rafiq and Nikita Malik, *Caliphettes: Women and the Appeal of Islamic State* (London: Quilliam Foundation, 2015); Al-Khanassaa Brigade (Translation and Analysis by Charlie Winter), *Women of the Islamic State: A Manifesto on Women by the Al-Khansaa Brigade* (London: Quilliam Foundation, February 2015); and Eileen MacDonald, *Shoot the Women First* (New York: Random House, 1991). An older book, it examines the experiences and motivations of the most notorious female terrorists of the last century.

32 Hypocrisy in Arabic is *niffaaq* and a hypocrite is *munaafiq*. Applying the terms to ISIL will resonate if done properly. Telephone interview with Foreign Service Officer Greg Hicks, May 26, 2015.

33 Jessica Stern and J. M. Berger, "A 6-Point Plan to Defeat ISIS Propaganda War," *Time*, March 30, 2015.

34 Dr. Juan Cole and Cathrin Schaer report young Arabs are mocking ISIL quite effectively on the Internet. See "The Rolex Camel Selfie: How Iraqi Youth are Ridiculing Daesh/ISIL Online," Informed Comment, November 29, 2014, <http://www.juancole.com/2014/11/caliph-ridiculing-daeshisil.html>.

35 Graeme Wood, "What ISIS Really Wants," *The Atlantic*, March 2015.

36 Norman Benotman and Charlie Winter, *Islamic State—One Year On: Understanding and Countering the Caliphate's Brand* (London: Quilliam Foundation, June 17, 2015); and David Ignatius, "How ISIS Spread in the Middle East: And How to Stop It," *The Atlantic*, October 29, 2015.

37 Lauren Markoe, "Muslim Scholars Release Open Letter to Islamic State Meticulously Blasting Its Ideology," *Huffington Post*, September 25, 2014, http://www.huffingtonpost.com/2014/09/24/muslim-scholars-islamic-state_n_5878038.html.

religious backgrounds fighting against ISIL resonate differently than one comprised only of Muslims? Do certain nations—notably Saudi Arabia—carry different weight with certain audiences? What is the impact of the new Saudi-Iranian tensions? How do regional allies view the role of Kurds, Turkey, and Kurd-Turkey tensions? The answers to these questions may prove useful in mounting operations.

We should test how effectively the testimony of those who joined ISIL and then defected can be leveraged. Exploiting the realities of these defectors and highlighting changed beliefs and behaviors may deter future recruits and sow doubt among supporters. Propaganda fosters the belief that joining ISIL is an adventure for a noble cause. The reality, as media accounts widely report, is quite different. What impact can communicating the realities have on our efforts?³⁸

Any counter-ISIL narrative needs to highlight injustice.³⁹ The question is how, where, and when to use this message. The group believes its cause is righteous, invoking Islam to justify violence and intimidation, arguing its violence discriminately punishes only those who oppose it.⁴⁰ Anecdotal evidence suggests this argument does not resonate, even among its own followers. Abu Hajer, an ISIL cameraman, expressed discontent with the mass execution of captured Assad soldiers. What bothered him was not their execution, but the manner of it. “I thought they deserved to get shot,” he declared, noting they were soldiers. “What I did not like was that they were stripped to their underwear,” an indignity under Islamic law.⁴¹ These ideas merit thorough testing.

Finally, we should test the impact of generally positive Arab reaction to Kurdish action in traditionally Arab territories that ISIL controls or occupies. President Barack Obama clearly believes Kurdish forces are key to defeating ISIL militarily. Kurds have doubtlessly proven effective in defending their turf. They helped regain Sinjar and have declared it part of Kurdish territory.⁴²

Information Warfare Tactics

Information Dominance

The first goal of any information warfare strategy, operation, or tactic is to gain information dominance.⁴³ No formula guides what constitutes success in this area (e.g., volume of tweets or social media communication). The overall goal is to forge a cohesive communication

38 Benjamin Weinthal, “Former ISIS Bride Recruiter Warns European Girls of Caliphate Horrors,” Fox News, June 23, 2015, <http://www.foxnews.com/world/2015/06/23/former-isis-bride-recruiter-warns-european-girls-caliphate-horrors/?intcmp=trending>.

39 Benotman and Winter, *Islamic State—One Year On*.

40 Craig Whiteside, “War, Interrupted, Part I: The Roots of the Jihadist Resurgence in Iraq,” War on the Rocks, November 5, 2014, <http://warontherocks.com/2014/11/war-interrupted-part-i-the-roots-of-the-jihadist-resurgence-in-iraq/>.

41 Greg Miller and Souad Mekhennet, “Inside the Surreal World of the Islamic State’s Propaganda Machine,” *Washington Post*, November 20, 2015.

42 Michael R. Gordon, “Kurds, Backed by US Air Power, Try to Regain Sinjar from ISIS,” *New York Times*, November 11, 2015.

43 A complete discussion of IW components would take into account Department of Defense operations security, physical destruction, electronic warfare, etc. to help describe the entire IW toolkit available to create potential synergies necessary for achieving operational and strategic effects. Space limitations mandate leaving that analysis to a future commentary.

strategy that achieves superior credibility, reach, and frequency to microaudiences; that strikes a responsive chord; and that shapes or changes behavior.

Achieving dominance has defensive and offensive aspects. Knocking ISIL and hostiles off the Internet may make sense.⁴⁴ Yet, identifying and mapping its voices and exploiting that vulnerability may be wiser. Zeroing in on digital commanders by identifying and suspending specific accounts that set strategy, and through which they give orders to the online army, makes sense and should be done case-by-case as an operational decision. Other considerations may mandate keeping ISIL actors online specifically for tracking and exploitation.

Monitoring hostile voices may yield important information and intelligence. We should preserve our ability to monitor enemy social media while disrupting or manipulating it. Different tactics offer that opportunity. Distributed denial of service attacks can generate a flood of precisely timed counter-ISIL messages delivered to target audiences. Volume and content can overwhelm the group's messaging and exploit channels of communication to confuse, mislead, demoralize, misguide, or disrupt. We should employ every channel of communication, including television, radio, social media, print, and grass-roots communications to achieve information dominance.

Humor

Humor can help achieve information dominance as the Middle East enjoys a strong tradition of satire.⁴⁵ Humor is powerful. As a symbol of ruthless authority, ISIL offers an ideal target. Iraq's *State of Myths* television show featuring a gun-toting dwarf and an Abu al-Baghdad who arm-curls human skulls illustrates the popularity of satire.⁴⁶ Humor draws audiences; it helps shape the information environment. A well-targeted campaign using print, social media, and broadcast media (radio and television) to mock the terrorists may bolster morale among its opponents while goading the other side into mistakes.⁴⁷ Humor is an effective tool to discredit and delegitimize ISIL among populations and to drive the message: it is going to lose.

44 Jared Cohen argues for marginalizing, not defeating ISIL, urging we separate human from automated Internet accounts, suspend social media accounts, publicize arrests, and use algorithmic analysis to identify, map, and deactivate accounts of terrorist supporters. Each of these has merit, but should be subject to specific strategies for operations and tactics. Except for publicizing arrests, one must be cautious about over-generalizing. See Cohen, "Digital Counterinsurgency: How to Marginalize the Islamic State Online," *Foreign Affairs* 94, no. 6 (November/December 2015).

45 Sonia Tamar Seeman points to the Turkish satirical journal *LeMan*, Iranian cartoonist Kianoush Ramezani's work for the Green Movement, and Tunisian satirists. See Seeman, "The Long History of Satire in the Middle East," *Pacific Standard*, January 16, 2015; and Ian Black, Patrick Kingsley, Manu Abdo, Constanze Letsch, Martin Chulov, Moni Mohsin, and Saeed Kamali Dehghan, "Laughing in the Face of Danger: The State of Satire in the Muslim World," *Guardian*, January 12, 2015. The Lebanese band, The Great Departed, use loud music and cultural references to target ISIL.

46 For an example of a TV cast persevering over death threats, see F. Brinley Bruton, "Iraq's 'State of Myths' TV Satire Takes Aim at ISIS Extremists," NBC News, November 5, 2014, <http://www.nbcnews.com/storyline/isis-terror/iraqs-state-myths-tv-satire-takes-aim-isis-extremists-n240636>.

47 Arab militants are not famous for having a sense of humor. In Lebanon, the TV show *A Nation Smiles* poked fun at Hezbollah. Instead of laughing, an angry Hezbollah took to the streets in demonstrations. Bassem Mroue, "Officials: TV Satire Riots Taint Lebanon," *Washington Post*, June 2, 2006. Any tactic that goads an opponent into mistakes is worth considering. Do not confuse such tactics with controversies such as the Danish cartoons which Muslims felt insulted their religion.

Operational Shock

Achieving operational shock on ISIL command and control mechanisms could prove useful. Shimon Naveh, a retired Israeli Defense Forces Brigadier General, draws upon Russian theories of deep operations that inflict shock and unhinge an adversary's equilibrium.⁴⁸ Simultaneous operations attack the enemy's center of gravity by identifying exact points of enemy strength and weakness, creating operational vulnerabilities, and exploiting those opportunities through maneuvering strikes to destroy operational cohesion.

The theory combines a mechanical element (kinetic strike) with cognitive elements (surprise and deception) and momentum to affect the adversary's consciousness.⁴⁹ This notion was developed for kinetic operations, but adapts well to information strategy in asymmetric conflicts that lack a continuous front.⁵⁰ Operational shock may dampen enemy morale, create doubt, sow confusion, diminish confidence, disrupt command and control, deter recruitment, discourage potential donors, rattle leadership, destroy cohesion, and force mistakes.

Experiences in Iraq in 2003 and Syria in 2015 illustrate this point. In Iraq, journalist Mark Urban reported Joint Special Operations Command (JSOC) operations killed around 3,000 insurgents and captured 8,000 to 9,000.⁵¹ British Special Forces captured or killed 3,500, which impaired al-Qaeda. In May 2015, US Special Operations forces staged a surprise attack that killed ISIL commander Abu Sayyaf.⁵² The ISIL response betrayed surprise and dismay.⁵³ Mounted continuously and simultaneously against key targets, such tactics can induce operational shock, wear down hostiles, and throw them on the defensive.⁵⁴

Military strategy we leave to the military. An integrated strategy that combines a kinetic element with information warfare can jointly achieve an operational shock that paralyzes, disrupts, confuses, misleads, or otherwise disrupts the military capacity and effectiveness of ISIL.

Reflexive Control

The discussion of traditional American notions of psychological operations important to any information warfare strategy lies beyond the scope of this article, but it should be considered in tandem with

48 Shimon Naveh, *In Pursuit of Military Excellence: The Evolution of Operational Theory* (London: Frank Cass, 1997), 12–13 and Chapter 6, 209.

49 *Ibid.*, 18–19 and 218–20.

50 Russian Deep Operation theories were developed for conventional wars characterized by armies opposing one another on a defined battlefield.

51 Mark Urban, *Task Force Black* (London: Little Brown & Co. 2011), 270–71.

52 Barbara Starr, Laura Smith-Spark, and Ray Sanchez, "Abu Sayyaf, Key ISIS Figure in Syria, Killed in US Raid," CNN, May 17, 2015, <http://www.cnn.com/2015/05/16/middleeast/syria-isis-us-raid/>. Obviously such raids require solid intelligence and a commitment of resources. No one suggests beating ISIL is easy or simple.

53 For a good illustration of the cumulative impact of forces inflicting operational shock, see the 2010 CNN news broadcast documentary by Paul Refsdal that took viewers behind Taliban lines in Afghanistan. The confidence and cohesiveness of Taliban fighters disintegrated into sheer panic when the noise of approaching helicopters signaled the apparent arrival of US Special Operations forces. See Paul Refsdal, CNN, "Inside the Everyday Life of the Taliban," December 11, 2010, <https://www.youtube.com/watch?v=1VDNArLotuQ>.

54 One recognizes success for these raids requires a lot of elements, including solid intelligence.

Russia's theory of reflexive control.⁵⁵ The Russian notion represents another tactic to use that requires understanding the motivation and decision-making of ISIL fighters and then manipulating them into doing the wrong thing.⁵⁶

Stephen Padgett, a former British commander in Afghanistan, relates a good example of how the mujahideen employed this tactic against the Soviets:

The Soviets advanced in conventional formation with mechanized forces against a dismounted mujahideen enemy that used tactics unlike anything the Soviets had trained for. The mujahideen knew and understood the Soviet tactical approach. They countered the Soviets with low-visibility small units that operated through dispersed command and control. They employed rapid fire and movement. They avoided presenting themselves as the types of targets the Soviets had trained to defeat—other conventional forces. The mujahideen got inside the decision-action cycle of the Soviets and used it against them to inflict casualties and defeat on the Russians.⁵⁷

The goal here is to manipulate information to compel an enemy to take desired actions. The conditions for using reflexive control require strong target audience analysis, which enables anticipating enemy action and using harsh forms of pressure that take social elements as well as intellectual, psychological, theological, and ideological factors into account.⁵⁸ The theory holds using armed force requires a psychological campaign. Like Carl von Clausewitz, reflexive control frames war as politics by other means.⁵⁹

National security expert Timothy Thomas notes reflexive control emphasizes the criticality of disorganizing the enemy as much as achieving information superiority in a successful information warfare campaign, and the former produces the latter.⁶⁰ Applying strong psychological pressure and driving messages that provoke emotional responses and disadvantage the enemy require influence operations that go beyond traditional military deception or military information support operations. Some American military public affairs officers may frown upon these tactics, but information warfare is about influence operations. Concerns these operations will undercut credibility through deceptive tactics are misguided. Mislead ISIL? Certainly. Operations should disrupt and demoralize the enemy at every level. Political and corporate communication campaigns achieve this goal all the time. Our military must do so as well.

55 Diane Chotikul defines reflexive control as “conveying to a partner or an opponent specially prepared information to incline him to voluntarily make the predetermined decision.” See Chotikul, *The Soviet Theory of Reflexive Control in History and Psychological Perspective: A Preliminary Study* (Monterey, CA: Naval Postgraduate School, July 1986).

56 Brian D. Dailey and Patrick J. Parker, eds., *Soviet Strategic Deception* (Stanford, CA: Hoover Institution Press, 1987); and Timothy L. Thomas, “Russia’s Reflexive Control Theory and the Military,” *Journal of Slavic Military Studies* 17, no. 2 (June 2004): 244.

57 Interview with retired Colonel Stephen Padgett, May 17, 2016.

58 Timothy L. Thomas, “Russian Information-Psychological Actions: Implications for US PSYOP,” *Special Warfare* 10, no. 1 (Winter 1997): 12–19.

59 Carl von Clausewitz, *On War* (Translated by Col. J. J. Graham), Kindle Location 416/4382.

60 Timothy L. Thomas, *Comparing US, Russian, and Chinese Information Operations Concepts* (Fort Leavenworth, KS: Foreign Military Studies Office, February 2004), 3–4; and also cited by Tatham, *Information Operations and Strategic Communications*, 51. Thomas notes the Chinese consider “control” to be nearly as important as information superiority and that control produces superiority.

Reflexive control entails several elements.⁶¹ Distraction creates a real or imaginary threat to a location the enemy considers vital, forcing the enemy to reconsider the wisdom of their decisions. This tactic may often combine kinetic and information tactics. The Soviet takeover of Afghanistan offers a good example of the impact of this tactic when the combination of kinetic and information tactics are properly executed.⁶² Using feints or disinformation to mislead, confuse, or distract may exploit vulnerabilities in the dispersal of ISIL forces. The effect may force them to become more visible to kinetic operations or to make a tactical mistake. At this writing, despite recent setbacks in Fallujah and other places, ISIL seems confident it can win most battles, therefore, information strategy should aim to make it overconfident.

Information overload through distributed denial of service can overwhelm the enemy by sending a large amount of conflicting information. The goal is to confuse and paralyze by denying access to a website by flooding the site with enormous numbers of visit requests. The Russians notoriously employed this tactic in Estonia and Georgia; Israelis and Palestinians used it against each other. China's "Twitter War" of 2012 over Tibet used bots that flooded discussions with the hashtags #Tibet and #Freetibet to intimidate Tibetan activists. This tactic illustrates how focused use of the Internet employs nonconventional military means to promote objectives.⁶³ The Islamic State prides itself on posting 90,000 messages a day. Tactics that degrade this capacity while promoting our messages can create confusion, distraction, paralysis, and other problems.

Reflexive control and operational shock can induce ISIL to carry out useless operations and tax its finite resources. Setting a trap, strategic messaging that uses social media outlets to provide false or misleading information may prompt them to perceive a vulnerability incorrectly. Strategic messaging communication about the size of a force, type of force, available support, or morale closes the trap and sets the stage for trumpeting ISIL weaknesses and allied triumphs.

Division and deterrence are additional elements of reflexive control. Division may convince ISIL to divide its forces to cope with a pressing problem and provoke reactions that make their combat forces vulnerable or disclose vital intelligence. Deterrence can create the perception of insurmountable superiority, which may impair small-unit attacks or delay a larger assault, giving coalition forces time to counter them.

Provoking ISIL by using attacks, coordinated messaging, or other means of initiating irrational emotional responses may induce ISIL to take actions that make it more vulnerable. The force that is demoralized, hesitant, or paralyzed by command and control makes mistakes.

61 Thomas, "Russia's Reflexive Control Theory and the Military," 248–49.

62 Soviet advisers convinced Afghan President Hafizullah Amin to move his court to a secure place at Darulaman, outside of Kabul. The move made him vulnerable to *Spetsnaz* forces who secretly moved into the Kabul airport and Bagram Air Base. Much of Amin's government was captured at a lavish Soviet social function in Kabul. In the meantime, Russian forces attacked and killed Amin and his family at Darulaman. This operation was an excellent example of deception, manipulation, and surprise. See Mark Lloyd, *The Art of Military Deception* (Barnsley, UK: Pen and Sword, June 1999), 128–29. Iraq and Syria may not offer an exact parallel, but the principle of finding ways to execute such tactics stands. Deception and surprise work for both kinetic and information warfare, although one needs to be very careful to limit deception to achieving military operational goals.

63 Adam Segal, "China's Twitter War," *Asia Unbound* (blog), March 22, 2012, <http://blogs.cfr.org/asia/2012/03/22/chinas-twitter-war/>. Segal notes the government took no credit for the war, but no other explanation makes sense.

Reflexive control tools help achieve cognitive dissonance, tension between the expectations of a target audience and the impact of information that contradicts those expectations—with similar results. In Iraq, al-Baghdadi and other leaders exhort members to fight and die for a winning cause. Their leaders' refusal to bear the same risks and battlefield losses creates opportunities for achieving this dissonance. Mocking ISIL about the better treatment accorded foreign fighters over Arabs opens up a second potential vulnerability for information warfare. A third may lie in undercutting expectations of victory—assuming Iraqis develop a will to fight. In Ramadi they have done so, although at a fearful cost. At this writing, Iraqi Security Forces, supported by US airpower, seem to have dislodged ISIL from Ramadi. Unfortunately the city lies in ruins. A similar situation occurred in Fallujah.

The United States did the same thing in its two battles for Fallujah in 2004. Losing the first battle thanks to superior information warfare by insurgents, Coalition forces prevailed in the second battle, but at the cost of destroying the city. Residents hated the insurgents, but they also did not like having their city destroyed. Fortunately by the war's end, Coalition forces avoided destroying the city and ousted the enemy—an outstanding achievement.

Weaponized Social Media

Weaponized social media opens up opportunities for kinetic action, but should be used in tandem with other tactics.⁶⁴ Members of ISIL use Twitter, Facebook, Skype, Viper, and YouTube as well as radio, television, print, and the rumor mill—a force multiplier that is ideal for capturing popular imaginations while speaking intimately to cultural, religious, and political sensitivities.⁶⁵ Our information warfare arsenal should include tactics that employ technical approaches to exploit the enemy's use of online venues.

We must access and utilize content that lies beyond mainstream Internet sites. Search engines like Google tap only 5 percent of the web. The remaining Deep Web consists of sites accessible generally through

64 For an excellent analysis of how social media can be used as a weapon, see Thomas Elkjer Nissen, *#TheWeaponizationOfSocialMedia: @Characteristics_of_Contemporary_Conflicts* (Copenhagen: Royal Danish Defence College, 2015).

65 In the Iraq War, the rumor mill was effective in spreading false information that consumed time and resources. See Bernardi, Cheong, Lundry, and Ruston, *Narrative Landmines*. Grounded in fears and frustrations of target audiences, rumor is a shorthand term for speculation, half-truths, and misinformation in the form of stories, that to some groups, offer rational cause-and-effect explanations of effects. They flow freely and plausibly fill gaps in knowledge in ways that can be totally fraudulent. Rumors operate as part of narrative systems and circulate within narrative landscapes. They explain conditions in the absence of information, express social anxieties, and are non-narrative. Example: In the Iraq War, insurgents spread the rumor US forces administering medicine to cattle were poisoning them. Cattle were observed to die. But why? No one knew; al-Qaeda tied the rumor into the broader narrative during the Crusades that Westerners came, attacked, pillaged, and destroyed. Now the United States is back, doing the same thing. The story fits into a familiar pattern that makes sense to local residents. As the story was repeated, it gained legitimacy. In the current conflict, rumors have spread—and believed by Iraqi troops—that American forces are secretly supplying ISIL, making them vulnerable to reprisal attacks. See: Seán D. Naylor, "Top US General: Many Iraqis Believe Washington Aiding Islamic State," *Foreign Policy*, May 20, 2015. In the meantime, Iranian leader Ali Khamenei has blamed the rise of the Islamic State on "America, Zionism, and especially the veteran expert of spreading divisions—the wicked government of Britain." See Jacob Siegel, "Who Thinks ISIS Is a Zionist Plot?" *The Daily Beast*, March 20, 2015, <http://www.thedailybeast.com/articles/2015/03/20/who-thinks-isis-is-a-zionist-plot.html>. Such rumors undercut efforts to forge a cohesive political, military, or information warfare strategy against ISIL.

encrypted technologies and comprises more than 90 percent of the web. New approaches of collecting, archiving, and analyzing that content, including DARPA's Plan X, are being developed.⁶⁶ Potentially useful, Plan X will provide a common operating picture of the entire realm of cyberspace that will enable commanders to select targets; to develop strategies, operations, and tactics; and to understand the enemy order of battle.⁶⁷ Such technology should be employed as soon as it becomes feasible given ISIL employs the Dark Web to recruit, raise money, and plan operations.⁶⁸ Information warfare tactics should incorporate strategic analytical insights gleaned from hidden service directories, social site monitoring, hidden service monitoring, and marketplace profiling.⁶⁹

Additional Information Warfare Operations

We should identify key communicators important to the target audiences and shape not sentiment, but behavior. These voices connect directly to the target audience; what they communicate—and how we deal with them—is pivotal. Core messages must astutely blend nuance, emotion, and appropriate language—for example, incorporating highly emotional words or phrases that key into predicted psychological reactions improves the chances of motivating behavior.⁷⁰

Accurately measuring the results of the information warfare campaign is imperative. One tool that uses volumetrics is behavioral analysis, which tracks user website visits, browsing, and interactions.⁷¹ Behavior analysis requires gaining secure access to targeted networks, systems, or nodes to facilitate data mining (cyberexploitation) of terrorist networks and communications channels. Stanley McChrystal, a retired general and former commander of US and North Atlantic Treaty Organization forces in Afghanistan, emphasized the value of this approach in the Iraq War.⁷² So did the Mumbai attack on November 29, 2008, which gave Pakistani terrorists an edge over Indian law enforcement. Gaining access will facilitate the collection and exploitation of ISIL data and provide better situational awareness of the cyber domain.

In another tactic, information warfare attacks against these networks deny, confuse, degrade, disrupt, deceive, divert, destroy, and ultimately prevent freedom of online operations. Preventing online

66 Kim Zetter, "DARPA is Developing a Search Engine for the Dark Web," *Wired*, February 10, 2015. The term Dark Web is a catch-all term for various Internet networks most people do not use, such as Tor, Freenet, and I2P; and Thomas Fox-Brewster, "Watch out Google, DARPA Just Open Sourced All This Swish 'Dark Web' Search Tech," *Forbes*, April 17, 2015.

67 Andy Greenberg, "DARPA Turns Oculus into a Weapon for Cyberwar," *Wired*, May 23, 2014; and Cheryl Pellerin, "DARPA's Plan X Uses New Technologies to 'See' Cyber Effects," DoD News, June 11, 2014, <http://archive.defense.gov/news/newsarticle.aspx?id=122455>.

68 Mikael Thalen, "ISIS Launches Site on Dark Web: Anonymous Hackers Intensify Operations Against Terror Group following Paris Attack," *Infowars.com*, November 17, 2015, <http://www.infowars.com/isis-launches-site-on-dark-web/> (popular ISIL website mirrored on the Dark Web in wake of Paris attacks); and Eric Niler, "ISIS Taps Dark Web, Encryption Apps to Coordinate," *News.Discovery.com*, November 16, 2015, <http://www.seeker.com/isis-taps-dark-web-encryption-apps-to-coordinate-1770473869.html#news.discovery.com>.

69 *Ibid.* Customer data monitoring refers to watching the visible web to see how user behavior relates to, or telegraphs, attempted connections to nonstandard domains. Social site monitoring applies to sites like Pastebin, which is often used to exchange contact information and addresses for new hidden services. Hidden service monitoring means staking out Dark Web sites. Marketplace profiling means developing construction models of how deals on the Dark Web go down.

70 Nissen, #*TheWeaponizationOfSocialMedia*.

71 *Ibid.*

72 Stanley McChrystal, *My Share of the Task: A Memoir* (New York: Portfolio / Penguin, 2013).

access could have devastating effects on ISIL who has become reliant on cyber technology to coordinate its fighters, support its networks and attacks, and conduct online messaging, recruiting, and fundraising.⁷³

Conclusion

Information warfare alone will not defeat ISIL. Information warfare is about advocacy and giving visibility to something by promoting ideas or perceptions that advance our interests while discrediting those of the enemy. Hammering ISIL on every lie, large or small, and fostering negative rumors rooted in truth can be effective.⁷⁴ Information strategies are crucial to neutralizing supporters of ISIL or other adversaries and converting them to be supportive opponents.

Information warfare is about changing behaviors—the way people act. Combined with the right political strategies and battlefield victories, information warfare can prove divisive. The United States has never forged a smart, savvy, cohesive strategic plan for it, but needs to for victory.

James P. Farwell

James P. Farwell is a national security expert who has advised the US Special Operations Command and former US House Speaker Newt Gingrich. He is the author of *The Pakistan Cauldron: Conspiracy, Assassination and Instability* (Washington, DC: Potomac Books, 2011) and *Persuasion and Power* (Washington, DC: Georgetown University Press, 2012).

Darby J. Arakelian

Darby Arakelian is a national security expert and former CIA officer. Farwell and Arakelian have co-authored the textbook, *Communication Strategy: How to Forge One That Wins on Communication Warfare* for the Joint Special Operations University and their new book on information warfare, *Punch Counter Punch*, will appear in 2016.

⁷³ In Iraq, then-General Stanley McChrystal used cyber technology and fusion capabilities from diverse parties to track enemies. Should DARPA's Plan X become operational, it will provide a common operating picture commanders can use to select targets; develop strategies, operations, and tactics for attack; understand the enemy order of battle; and advise special operations forces on forging and executing effective measures. The goal is to obtain a rapid, high-order picture of what cyberspace looks like at any given point, including network connections and the capacity a particular route has for carrying computer malware (e.g., a cyberweapon) and to suggest alternative routes according to traffic flows. Mapping may also enable commanders and tactical operators to avoid damaging systems not targeted, including homes or hospitals.

⁷⁴ False rumors can be discredited, undercutting broader messaging against ISIL. Spreading rumors, such as ISIL showing it was no match for Kurdish women and was afraid at Kobani, is different from fabricating stories about false victories.