

11-2015

Information Operations and the Islamic State

James G. Howard

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Program Name * See list	Master of Arts in Intelligence Studies-Capstone Option		
Keywords [250 character max.]	Islamic State; Information Operations		
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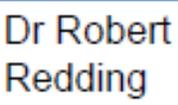
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INFORMATION OPERATIONS AND

THE ISLAMIC STATE

A Master Thesis

Submitted to the Faculty

of

American Public University System

by

James G. Howard

In Partial Fulfillment of the

Requirement for the Degree

of

Master of Arts

September 2015

American Public University System

Charles Town, WV

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DEDICATION

I dedicate this thesis to Dr. Dean Manna, a distinguished faculty member of Robert Morris University and a dear friend. Without his mentorship and instruction during my undergraduate years, I would have never made it to the point I am at today.

ACKNOWLEDGMENTS

I wish to thank the various American Military University (AMU) Professors I have had the opportunity to work with up to this point. The abundance of prior-service faculty at AMU helped those of us still serving to feel very welcome, particularly when our deployments interfered or delayed our participation in coursework. In particular, I wish to acknowledge my INTL699 Instructor, Dr. Robert Redding. Dr. Redding had no qualms about pushing me as hard as necessary to ensure I was ready to submit a Master's Thesis to standard and on time. His firm yet professional approach helped many of us in the class who struggled at multiple stages, particularly when finalizing our Theoretical Framework and Research Methodology required for this Thesis. Dr. Redding not only has the technical expertise needed, but always acted as a consummate professional during the course. For that, I am thankful. I hope he had a few laughs along the way as I did.

ABSTRACT OF THE THESIS

INFORMATION OPERATIONS AND THE ISLAMIC STATE

by

James G. Howard

American Public University System, September 2015

Charles Town, West Virginia

Dr. Robert Redding, Thesis Professor

In an age of evolving and asymmetric warfare, Information Operations represent a useful tool to shape any conflict from a distance. Its effectiveness is particularly valuable given the current climate of fiscal uncertainty and the low-risk of human casualties it presents. The study of the conflict with the Islamic State provides an ideal opportunity to determine what comprises an effective Information Operations campaign. Using a non-experimental, qualitative approach that relies on causal reasoning, this research analyzes prior Information Operations used by and against both the Islamic State and similar terror groups such as Al-Qaeda and Al-Shabaab in order to identify aspects of effective Information Operations. The research conducted shows that Information Operations targeting Islamic terror groups are effective in causing disruption, provided they have access to the correct target audience, the utilization of digital mediums, and leverage using the themes of barbarism and the Islamic State label of “Daesh”. The key to identifying effective Information Operations ultimately lies in the understanding of the target

audience through ethnography, and the knowledge of how Game Theory and Focalism form the basis of the propaganda effort.

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CHAPTER ONE

INTRODUCTION

“The spark has been lit here in Iraq, and its heat will continue to intensify – by Allah’s permission – until it burns the crusader armies in Dabiq”. Abu Mas’ab as-Zarqawi, Dabiq Issue 8, 2015.

A radical, militant Islamic group recently emerged out of the Middle East, seizing territories in Iraq, Syria, and even as far as Libya in Africa, in their attempts to recreate an Islamic Caliphate. This group named themselves the Islamic State of Iraq and the Levant (ISIL), the Islamic State in Iraq and Al-Sham (ISIS), or Islamic State for short. The Islamic State required little time before it distinguished itself from other terror groups such as Al-Qaeda and Al-Nusra. Comprised of militant Islamists looking to recreate their own Caliphate, this group is willing to take any and all required actions, however violent, needed to achieve their goal. One name for their group they did not choose is “Daesh”, which is now a popularized Arabic insult roughly translated as a “bigot who forces their views on others” or “to be crushed”, depending on various scholarly opinions (Koski 2015, 1). While some politicians and even military leaders would argue that words mean little in this global war on terror, the response from the self-proclaimed Caliph of the Islamic State, Abu Bakr al-Baghdadi, was so severe that he threatened to cut the tongues off any caught speaking its name (Koski 2015, 1). This report submits that the ease at which the Islamic State is provoked shows the power of words in this conflict, and such non-lethal approaches to disrupting this global terror organization are a necessary part of 21st century warfare. The research illustrates how this use of digital or analog media as a weapon, known as “Information Operations”, is a critical tool for “...depicting a group’s violent acts as legitimate, for reaching sympathetic target audiences, and for intimidating opponents” (Lovelace 2014, 2). Whether recruiting new fighters or enriching itself through financing from afar, the

Islamic State shows continued ability to leverage social media to achieve its desired end state: an Islamic Caliphate spanning all of Africa, Europe, and the Middle East.

Current Approaches to Terror Information Operations

Whether or not current Information Operations efforts by the Islamic State are effective is a topic of much debate. It is true that this terror organization lacks much of the technology and resources that the United States has. However, as the study of the Islamic State's current media efforts took place, this report noted these limitations did not appear to discourage the group. While the Information Operation efforts by the Islamic State help instill fear, recruit fighters, raise funds, and publicize its caliphate, it also provides much needed intelligence that enables targeting of its forces, as well as illustrating excessive barbarity within the organization (Ross 2015, 1). In stark contrast, the global community has the ability to choose from a myriad of lethal, non-lethal, or hybrid approaches to counter this threat. As expected within this report, current counter Information Operations efforts by government and military sources are quite varied. Some have taken the approach of publically denouncing the actions of the Islamic State, but nothing more. Others attempt to censor or remove access to social media from extremist groups, not only meeting with limited success, but also potentially causing civil rights violations for other religious groups (Loria 2014, 3). A third approach, already in use by the United States, involves deliberate lethal targeting by exploiting data within social media posts, such as geo-recognition tools and other GPS features (Ross 2015, 1). Lastly, a few have adopted a "standing on the sidelines" approach by blocking Islamic State social media through mediums such as Facebook, YouTube, and Twitter (Shea 2012, 24). Aside from civil liberty issues, a significant drawback to all of these approaches is that Islamic State social media represents a treasure trove of data, all exploitable by the intelligence community. While this report acknowledges the

advantages of using social media data for lethal targeting, this project also aims to determine how to leverage non-lethal approaches to conflict through social media platforms. In doing so, this research assists in helping the global community balance individual liberties and the risk of excessive censure in its efforts to combat Islamic State propaganda.

Why “Daesh”?

One Information Operations effort against the Islamic State that has struck a chord is the labeling of the group “Daesh” (Randall 2014, 1). The connotation carries a variety of meanings and interpretations, indicating anything from strife between warring tribes, to “crush underfoot” (Ostaeyen 2015, 1). This phrase appears to infuriate the Islamic State, which has already publicly punished persons, even young children, for uttering the name, threatening to cut out the tongues of any caught speaking it (Koski 2015, 1). Their extreme reaction to a simple word is what drives this research, and why this report focuses on discovering the most effective Information Operations campaign to target this group. This report submits that the United States and its allies must conduct a concerted and focused counter Information Operations campaign through the same social media channels that the Islamic State uses. The United States runs a serious risk of further destabilizing areas of the Middle East and Africa through direct military intervention, as occurred during the Gulf War and the follow on Shia vs. Sunni conflict. The findings, analysis, and conclusion to this report show how social media is a critical tool for the global community in winning this war on terror. Such a targeted information operations campaign relying on non-lethal influencing techniques will effectively disrupt Islamic State operations, all while avoiding the use of military forces unless all other options are exhausted.

Game Theory, Focalism, and Ethnography

The research links Game Theory and Focalism, combined with Ethnography, to the current body of peer-reviewed work that exists on the Islamic State's Information Operations campaign, as well as opposing Information Operations efforts in countries such as the United States. Game Theory shows how Western actions illicit a specific counter-reaction, and leads to increased extremist activities by Islamic groups. Furthermore, Game Theory illustrates how the Islamic State and the global community engage in gamesmanship, each knowing its actions will cause specific second and third order effects globally. Lastly, Ethnography applies to the research because of the environment and culture the target population lives in. The effectiveness of social media, whether used for or against the Islamic State, relies on the geographic and human terrain (Ethnography) of the target population. The focus on these theories of cognitive bias, combined with the understanding of the sociology involved, assists in developing the framework for an effective counter Information Operations campaign against the Islamic State.

Purpose Statement

Most recently, the emergence of the Islamic State in Syria, Libya, and Iraq has brought this threat to the forefront of global concern. In a new era of fiscal restraint and public outcry against open-ended conflict, there is little appetite from the citizens and its government for a protracted engagement. Instead, focusing on a non-lethal approach, the challenge becomes how to fight an enemy who uses social media to radicalize and recruit followers from afar? By examining current and historical Information Operation campaigns from the Islamic State, this report aims to extract those with effective methodology, turning the tables on the enemy, and use the same tactics against them. If one generation of radical fighters falls, the world must ensure that following generation does not take up the weapons of their fathers. Stopping this

radicalization requires an equally effective counter information operations campaign. Within this research paper, the focus lies in determining the methodologies for both disrupting and delegitimizing the social media capacities of the Islamic State, preventing their extremist ideology from spreading further. Through long-term use, the use of social media at a minimum can complement both lethal targeting as well as turning the hearts and minds of the populace against the Islamic State.

CHAPTER TWO

LITERATURE REVIEW

Islamic State Information Operations (effective vs. ineffective)

(Instills fear/spreads disinformation – effective)

During the July 4 holiday of 2015, the Islamic State made threats through social media to attack United States interests (Ross 2015, 1). Even with the death of the fighter that made the threats, the tremors of fear reverberated throughout the country leading up to Independence Day (Ross 2015, 1). While the social media data may have enabled the killing of the Islamic State fighter, the group was successful in their goal to cause the United States to increase force protection measures and expend sizeable funds to safeguard against an attack. Historical behavior by the Islamic State on social media also shows that sometimes disinformation, rather than fear, is the aim of Information Operations. In *The Islamic State of Iraq and Al-Sham and the Cleansing of Deir Ez-Zour*, Valerie Szybala reviews how the group incorporates social media into offensive operations in order to confuse their enemies as to their intent (Szybala 2014, 4). In this particular case, the Islamic State was able to puzzle their opponents as to when and where they were going to attack, spreading out their opposing forces and disrupting their battle preparations (Szybala 2014, 4). While both Ross and Szybala highlight the effectiveness of Islamic State Information Operations capabilities, they differ in that one method focuses on the psychological fear, while the other intends to disrupt the maneuver forces of the enemy based on false information. It is notable that neither researcher cites Focalism or Game Theory as influencing decision-making, yet it is applicable in both bodies of work. Ever since the spectacular attacks of September 11, 2001, the United States experiences a constant cognitive bias (Focalism) on the possibility, however miniscule, of another mass terror attack on their

country. Focalism allows the Islamic State to exert tremendous influence by utilizing this anchoring aspect in its Information Operations targeting the United States. When the Islamic State engages in the action of making threats online, it knows it will illicit the desired response (Game Theory). When the group sent out mixed messages through social media about where it would attack, the Islamic State knew the reaction would be the repositioning of opposing forces. *(Inspires jihad/recruits fighters – effective)*

In *The War of Words*, Richard Evans discusses how the mere coverage online of Islamic State attacks can serve to inspire other followers to do the same (Evans 2014, 2). This is troubling and significant to the research because this action requires little to no effort on the part of Islamic State members, other than posting a video online, to recruit others to their cause. Evans continues by highlighting how Salafimedia UK productions tailors the message to the audience based on variables such as the age group, geographic area, and language (Evans 2014, 3). This is an example of how the Islamic State uses Ethnography to enhance the effectiveness of their Information Operations Campaign. In *Pledging Bay'a: A Benefit or Burden to the Islamic State*, Daniel Milton continues this line of thinking by discussing how the Islamic State uses social media to attract foreign fighters, or more specifically, encourages individuals to make a “Bay’a”, which is an oath of fealty to the Caliph (leader of the Islamic State) (Milton 2015, 2). Game Theory shows why this approach is effective. When the leadership of the Islamic State created this pledging website, they knew it would prompt a counter-action from users, encouraging Muslim extremists to take a more dedicated approach, swearing an oath of fealty. Milton however, unlike Evans, makes an argument that this pledging method could actually be a burden instead of benefit to the Islamic State. Not only does this “Pledging Bay’a” make it exceedingly easy to make what was once a very physical and intimate pledge from centuries

past, it also risks introducing groups into the Islamic State that are not entirely committed to jihad (Milton 2015, 14). This problem is apparent when Milton discusses the jihadi groups in North Africa, and how they follow the Maliki madhhab school of Islam, which is notoriously flexible on their interpretation of the Bay'a (Milton 2015, 15). In this case, Ethnography shows the reader that the physical and human terrain of the population influences their ability to swear true fealty to Islamic State leadership. In the *London Evening Standard*, May 2015 issue, Joseph Watts discusses how multiple British pupils were "groomed" by Islamic State social media, and snuck away from their families to join the caliphate (Watts 2015, 1). In this instance, like that of the Bay of Bay'a, the quality of the new Islamic State members was extremely low, as these girls quickly became disenchanted and fearful after spending time with the group's fighters (Watts 2015, 1). Yet, sometimes the jihadist message can resonate with more lethal and experienced fighters. In the last year, reports have Chechen terrorists with significant guerrilla-based skills as well as world champion martial artists such as Valdet Gashi, drawn to the Islamic State cause (Zidan 2015, 1). This report submits that although social media makes it easier to inspire jihad and recruit fighters, it ultimately results in the inclusion of individuals who are not as extreme or as loyal as Islamic State leadership prefers. While the terror group expands its member base, it risks destabilizing its organization by attracting individuals who are intrigued by its social media, but lack the fanaticism to take real action or make a true commitment.

(The Islamic State uses a tightly controlled, yet decentralized approach for Information

Operations – effective)

Although the Islamic State is a global organization in many respects, its approach to media operations is far less centralized. In *The Islamic State*, Richard Barrett details how the group relinquishing control of Information Operations across the world often works in their favor

(Barrett 2014, 51). Barrett states that "...the Islamic State is crowd-sourcing its agenda...allowing each of its supporters to effectively create and operate his/her own ministry of information" (Barrett 2014, 51). Not only does this crowd-sourced approach save the Islamic State time and resources, it also makes it more difficult for countries such as the United States to identify and target terror group leadership through social media. Instead of the United States exploiting global positioning data (GPS) from Islamic State fighters in Syria, they might instead come across a young teenager in the basement of their apartment in the United Kingdom who is managing a Facebook page. The Soufan Group echoes this argument in their report titled *The Islamic State: A Monopoly on Messaging*. Soufan assesses that it is the heavy-handed approach to foreign journalists, combined with "...the decentralized nature of social media, which has allowed supporters to create and operate their own ministries of propaganda" (Soufan 2014, 1). Ethnography demonstrates why this decentralized approach is effective. Giving local users in various regions around the world the ability to tailor the Islamic State message allows them to refine the propaganda based on the geographical and human terrain. Depending on the language, the culture, and technologies available, these cyber supporters leverage sociological variables to enhance the reach and effectiveness of their message. Evaluating this argument through Game Theory, it confirms that The Islamic State enjoys most effective response from its target audiences globally if it cedes control of its media operations to local users.

(Highlights the caliphate narrative – effective)

In *Three Traits of the Islamic State's Information Warfare*, Haroro Ingram laments on how easily Islamic extremist groups such as Al-Qaeda and the Islamic State have been able to create "perceptions of crisis" in order to resonate with their target audience (Ingram 2014, 6). Al-Baghdadi, the self-proclaimed leader of the Islamic State, is even quoted as saying there are

only two camps, "...the camp of Islam and faith, and the camp of disbelief and hypocrisy" (Ingram 2014, 6). Indeed, in the "camp" that al-Baghdadi referenced, the Islamic State has been able to provide amenities such as education, medical care, utilities, and other social services common in many other developed nations (Soufan 2014, 1). It is this dream based on Focalism, rather than reality, that Ingram asserts that convinces followers to pursue the group. This report submits that the quality of services and functional infrastructure existing in the Islamic State capitol of Al-Raqqah function because it is the nexus of operations for the group. Within the other 99% of the areas controlled by the Islamic State, it offers no such luxuries. When Al-Baghdadi discusses the aggressive nature of Western powers, and the threat they represent to the sovereignty of Muslim nations, Al-Baghdadi is relying on the viewers' cognitive bias and anger against the United States. This acts to shape a narrative, based on a half-truth, which shows the United States continually attacking and invading Muslim countries such as Iraq and Afghanistan. Charles Caris further highlights these benefits of the Caliphate in a Middle East Security Report titled *ISIS Governance in Syria*. Caris explains that the analog and digital propaganda the Islamic States distributes is not just limited to recruiting fighters, but also encourages other citizens to "...come and live in a functioning and thriving community" (Caris 2014, 9). Even within Al-Qaeda, now fully separated from the Islamic State, this Islamic terror group continues to utilize cyberspace to build a narrative that attracts followers. In *Al-Shabaab and Social Media: A Double-Edged Sword*, Ken Menkhaus describes this online appeal as a "...virtual jihad, principally devoted to its role as a catalyst of transformational new norms, identify discourses, and worldviews" (Menkhaus 2014, 2). Menkhaus raises an important point that Ingram only hints at earlier, which is that cyber jihad has become a respite for Islamic State

sympathizers who are unable or unwilling to serve in a more dedicated fashion (Menkhaus 2014, 2).

(Highlights barbarity and divisiveness of ISIS – ineffective)

In *Clicking for ISIS*, Rafia Zakaria remarks on how terror groups such as the Islamic State and Boko Haram target young females who stray from the path of Sharia law, failing to meet their required duties as members of the Caliphate (Zakaria 2015, 24). In this case, hundreds of young pupils were kidnapped, raped and forced into marriages, while Boko Haram taunted the world globally through its social media outlets. This misogynistic mindset also attracts the young Islamic State fighter to the cause, and is another reason why this group targets ethnic minorities and offers its female sex slaves to Islamic State fighters (Zakaria 2015, 24). The polarizing nature of their videos only inflates the audience sizes further. The research here shows that the ruthlessness of this propaganda can swing both for and against the interests of terror groups. Alex Altman discusses this tactical failure by the Islamic State in *Barack Obama's Flame War Against ISIS*, where a counter-information operations team run by the United States State Department focuses on engaging the target audience instead of the group itself. This action casts the Islamic State in a negative light, reducing the lure of jihad (Altman 2014, 3). Here, Focalism works against the Islamic State, since the counter-information operations campaign by the United States State Department relies on the impact of a few barbaric actions to sway the opinion of the target audience away from the positive light that caliphate is supposed to generate. In *Strategic Communication: ISIL's Race to Dominate the Web*, Nur Azman echoes this issue of the Islamic State self-isolation through its own media campaign. When the Islamic State cut its ties to Al-Qaeda in 2013, its aggressive methods and strict interpretation of Sharia law alienated the group from many Islamic extremists once

considered its allies (Azman 2014, 9). In *The Islamic State's Expansion in Libya*, Andrew Engel also elaborates on this issue of divisive rhetoric. According to Engal, while the Islamic State publicizes its messages of “hisha” (religious accountability) and “dawa” (proselytizing), it also targets “The Awakening” who once fought against their older Al-Qaeda elements (Engel 2015, 2). Islamic State leadership appears conflicted in this regard, as their attempts to recruit new fighters also create numerous enemies along the way. From an Information Operations perspective, this shows that the Islamic State is fighting not only to persuade its target audiences globally, but must also fend off challenges online from other extremist groups who the Islamic State alienated in the past, which also disagree with their hard-liner approach.

Counter Information Operations targeting the Islamic State (effective vs. ineffective)

(Governments unable to remove access to social media – ineffective)

In *Terrorism Inc.*, Richard Clarke discusses the difficulty inherent to disrupting or removing access to the media accounts and other online tools of the Islamic State (Clarke 2015, 8). Even with the closing and banning of accounts, new usernames quickly reappear, and the use of “cloud” type file-sharing and file-hosting make it literally impossible to remove global accessibility to audio and video files (Clark 2015, 8). In *New Age of Warfare*, an article by the Terrorism Research & Analysis Consortium (TRAC), the author continues to discuss the advantages available to 21st century terrorists, such as an age of “...internet in communication, fundraising, financing, indoctrination, and recruitment” (TRAC 2014, 2). Both authors agree that it is not just the message itself, but the tools provided within social media, such as encryption and password-protected forums, that make it an impossible task to destroy in its current form (TRAC 2014, 2). These bodies of research illustrate why the methodology of attacking access to social media in a counter-information operations campaign is a poor

approach. Even with the removal of these tools from the Islamic State, Game Theory indicates that the Islamic State will evolve and respond to the restriction and find a way of overcoming it to continue their message of hate. Rather than trying to disrupt their message apparatus, the authors state, and this paper concurs, that focus needs to be on message itself, which is winning hearts and minds for the Islamic State.

(Censorship of social media is a civil liberties issue – ineffective)

Governments around the world have sent mixed signals regarding their desire to regulate online speech in an attempt to reduce religious hate-speech. In 2009, President Obama acclaimed free speech to the U.N. General Assembly, but then joined in calls to restrict anti-Islamic speech only, echoing a similar effort by then Secretary Clinton in 2011 (Shea 2012, 24). In *Should Social Media Censor Content*, Keith Loria continues this argument by discussing how the internet community reacted to the posted and gruesome beheading video of journalist James Foley (Loria 2014, 1). Loria reveals the difficulty in censoring social media by arguing “...should social media sites be in the business of censoring content-and, by extension, users” (Loria 2014, 1)? This is the one area where the research delves into civil rights, since the Constitution of the United States requires the balance of restricting hate-speech against the freedom of expression through digital mediums. Loria makes a valid point that groups snared in these censorship schemes could easily be innocent of hate-speech, such as a Baptist church that had their sermon removed from YouTube and account banned due to references of Christian persecution in the Middle East (Loria 2014, 2). In an article in the *Economist*, *Should Twitter Block Islamic Snuff Videos*, the author follows Loria’s line of thinking, but further synthesizes it into an excellent argument: “...should we respond to authoritarianism with authoritarian action” (Economist 2014, 1)? Even with current censoring efforts, a recent Brookings Institute report

found "...up to 70,000 Twitter accounts support the Islamic State, with the majority of accounts created in 2014, with tweets from within Syria and Iraq" (New Scientist 2015, 1). A fair question here is whether governments are allowing Focalism to influence their attempts to ban or censor online media due to a cognitive bias tied to historical terror events. While the beheading of James Foley was a horrific crime, does a single action by users representing less than 1% of the online community, warrant a backlash against the other 99%? Likewise, Game Theory also teaches that attempts to censor or ban accounts for some users result in their reappearance through other online personas or mediums.

(Continued use of lethal targeting against ISIS – ineffective)

In a recently published article in the Daily Beast, Nancy Youssef discussed how after Egyptian President Sisi referenced fast-tracking the death penalty for Morsi (prior leader of the Muslim Brotherhood), groups loyal to the Islamic State immediately launched attacks targeting Egyptian interests (Youssef 2015, 2). Egyptian military forces then responded to the attacks by launching their own assault on Islamic State bases, reportedly killing over 100 fighters (Youssef 2015, 2). In *The Islamic State and American National Security*, Leonard Weinberg presents the argument the United States is using to target the Islamic State, one based on national security/national interest, which is inherently flawed (Weinburg 2014, 336). Weinburg argues, and this report agrees, that the Islamic State is more interested in "fighting near enemies" instead of "nonbelievers in Western democracies" (Weinburg 2014, 337). Evaluating this argument through the theory of Focalism, historical attacks against the United States have resulted in a fixation on any possible terror attacks, regardless of their remote possibility. Game Theory is also a proponent of the argument that such direct military intervention against the Islamic State would act as a catalyst for their members and sympathizers across the globe, acting to spur more

terror attacks against the United States. A counter-argument to this viewpoint comes from Kimberly Kagan in *A Strategy to Defeat the Islamic State*, taken from a Middle East Security Report. Here Kagan argues that the Islamic State is too dangerous to let be because they demonstrate comparable lethality and dedication to historical Al-Qaeda affiliated groups (Kagan 2014, 4). However, all the authors mentioned above agree that it is the human terrain of Iraq, Syria, and other territories that the Islamic State controls, all of which are the key to defeating the group. In this way, it is Ethnography, a clear understand of the people, the culture, and the terrain, that drives the success or failure of Information Operations involving the Islamic State. *(The Islamic State as “Daesh”, mocking the caliphate, infuriates Islamic State leadership – effective)*

In 2014, the US State Department launched its own Information Operations campaign targeting the Islamic State, focusing on group’s killings and the various acts of barbarism that occur within its caliphate (Altman 2014, 1). This offensive action by the United States came to a head when government and military forces officially replaced the name of Islamic State and began referring to them as “Daesh”, considered a great insult to the terror organization (Randall 2014, 1). Both Altman and Randall confirm that very specific Information Operation messaging against the Islamic State can elicit a severe response, such as threatening to “cut out the tongues” of those caught speaking its name (Koski 2015, 1). Looking at this label through the lens of Game Theory, it is apparent why mocking the caliphate through this Arabic slur is effective. The intended insult forces not only a response from Islamic State media sources, but also leadership itself, with this reply helping to validate the message of hate and barbarism. This delegitimization of the Islamic State is key to the global community solidifying its Information Operations effort against the group. Through this constant back-and-forth dialogue, based on

Game Theory, it provides an opportunity for the United States to plan media operations two or three moves ahead of the group. Focalism also illustrates why this approach works, as the Islamic State becomes ever increasingly fixated on the label, ignoring the larger body of Information Operations, allowing this name to influence and drain their media operations resources as they file rebuttal after rebuttal.

Theoretical Framework

Research Question/Hypothesis:

The research project centers on the determination of the most effective methods of conducting Information Operations through digital mediums, targeting the Islamic State. This study proposes that if the United States conducts its own counter Information Operations campaign targeting the Islamic State through social media, then this Information Operations campaign will disrupt Islamic State operations globally.

Theories:

The research uses Game Theory and Focalism to explain how and why the United States as well as the Islamic State utilizes Information Operations to achieve a desired end state. Game Theory, as defined by Todd Sandler in *Terrorism and Game Theory*, involves "...each adversary acting on its beliefs of the opponent's anticipated actions" (Sandler 2003, 1). The use of Game Theory is critical in helping the reader understand how the interactions between terrorists and government have implications at the strategic level (Sandler 2003, 1). In contrast, Focalism, unlike Game Theory, highlights the role of cognitive bias due to anchoring that is present in decision-making. In *Focalism: A Source of Durability Bias in Affective Forecasting*, Dr. Timothy Wilson describes Focalism as "...whereby people focus too much on the occurrence in question, and fail to consider the consequences of other events likely to occur" (Wilson 2000, 3).

Focalism explains how the Islamic State, and other historical terror groups have utilized single events, such as errant bombs falling on civilians in Iraq, or the 9/11 terror attacks in the United States, to legitimize their cause, ultimately helping to recruit and finance their efforts.

Gaps in the Literature/Conclusion

The literature on Information Operations and the Islamic State uncovered numerous information gaps. Specifically, little to no research existed showing quantitative or qualitative metrics of Information Operations used by or against the Islamic State. This lack of peer-reviewed or academic data proved frustrating to the research, and required highly subjective assessments based on existing bodies of work on the Islamic State. Much of the documents and media reporting analyzed relied on open source reporting from news outlets as well as non-peer reviewed works. However, the willingness of the Islamic State to use social media to recruit and finance its organization provides a wealth of open source data for future research. The gaps and deficiencies uncovered require this research to take a causal, qualitative approach, relying on subjective interpretations of Information Operation effects on the Islamic State. The newness of the Islamic State also prevented this literature review from locating current, peer-reviewed sources that used Game Theory or Focalism to explain the action vs. reaction of the Islamic State to Information Operations. This forced this report to make assumptions on behalf of Game Theory and Focalism advocates, personally linking the Islamic State to the theories. Therefore, future research relies on analyzing additional terror groups such as Al-Qaeda and Al-Shabaab, and how Game Theory or Focalism influences their actions and responses to certain Information Operation campaigns. Through researching these information gaps, rest of the global community can determine the most effective methods of disrupting the communications capabilities of the Islamic State, as well as define what specific Information Operation themes are effective against

the group. Filling these information gaps answers the question of how the Islamic State continues to recruit fighters and raise funds, providing critical intelligence that allows the disruption of their efforts worldwide.

CHAPTER THREE

METHODOLOGY

Research Design

This research report uses a non-experimental, qualitative approach focused on causal reasoning, essentially identifying “how” and “why” Information Operations are effective in their ability to influence or disrupt their target audience. In order to build a large enough portfolio of secondary research to analyze, this report focuses not only on the existing body of research into the Islamic State, but also makes use of similar studies of other Muslim extremist groups such as Al-Shabaab, Al-Nusra, and Al-Qaeda. The study of other extremist groups permits the filling of information and research deltas that exist given the newness of the terror group, the Islamic State. In addition, this increases the credibility of the body of work, since the data compares results of Information Operations across multiple terror groups. Considering the importance of culture in understanding the effectiveness of Information Operations, the qualitative approach used for this research involves Ethnography, or simply the study of the human and geographic terrain of the target population. Since this report is unable to conduct direct observation, the unobtrusive measure of content analysis is used. This involves the detailed study of documents and media, known as thematic analysis, in order to identify prevailing themes.

Limitations/Bias

There are many limitations to both this research approach and topic. Safety concerns prevent the study of the Islamic State first hand, so without the ability to conduct primary research, the research design relies on existing documents, studies, and reporting conducted by prior researchers (secondary research). The reader is reminded that it was as recently as 2013 that the Islamic State broke away from al-Nusra to form their own group (Weinberg 2014,

341). The limited data available on the Islamic State not only forces this research project to use a smaller pool of peer-reviewed works, but also inferential methods of analysis, increasing the possibility of bias, both personal, and from the secondary research itself. The research focus is on current social media reporting by the Islamic State, followed by previous historical reporting on Information Operations and the terror group Al-Qaeda and Al-Shabaab. The entire body of social media referenced in this report relies on non-peer-reviewed sources, a fair requirement given the need to reference the most up-to-date propaganda both used by the Islamic State and the United States government. The intent of the research here is to mitigate the limited amount of data available on this terror groups by supplementing it with Information Operation studies and propaganda from similar, yet older groups. This study accepts the limitation that conclusions drawn within the secondary research used result from limited observation and small populations. Due to the short period of time allocated to conduct detailed research and develop the findings and conclusion needed for this report, the report accepts the limited number of sources (peer and non-peer-reviewed) available as a necessary constraint of the research.

Variables

Independent variables for this report are Information Operation messaging themes, digital and analog mediums of delivery, and the intended target audiences. The intent of the independent variables in this report is to identify what the elements of effective Information Operations are. Dependent variables are this report's attempts to measure the indicators or degree of the effectiveness of Information Operations. Since the data is nonnumeric, qualitative, and highly subjective in nature, the research looks for trending and causal explanation to understand the relationships between the variables.

Data Collection/Treatment Procedures

In this report, the goal of the research is to evaluate 10 cases of Information Operations involving the Islamic State, a minimum of 20 sources of peer-reviewed research on the target population itself, and 30-60 open-source documents reporting on current Islamic State media operations. The author prefers citing works that are sociology based, and have some bearing on Game Theory or Focalism. The research relies on purposive sampling in order to ensure the collection of enough Information Operations for each communication method, target population, and theme. Within Appendix A, Information Operation campaigns are broken down into their respective categories, with each text field populated with its relevant data. This data collection and treatment is the basis for the data analysis, findings, and conclusion of the report. The research also attempts to evaluate each Information Operation to determine if the effects achieved on the target population, attempting to identify the causal relationship between the independent and dependent variables.

Sources of this information, in order of preference, are peer-reviewed library references, journals, and publication databases available through American Military University and Google Scholar, followed by open source (non-peer reviewed) reporting. Unfortunately, there are significant limitations existing that affect the ability of this research project to study Information Operations and the Islamic State. This results in possible issues such as research validity and reliability, both of which are a result of the limited access to the Islamic State as well as limited number of peer-reviewed reporting available on the group. This study accepts the risks inherent to this topic, and submits they are a constraint due to the sensitive and recent nature of the Islamic State. Since the research involves no direct participation or observation, there are no moral or ethical issues, nor permissions required.

Data Analysis

Since the research conducted for this report is non-numeric in nature, this research studies instances of perceived successful and unsuccessful Information Operations in an attempt to identify “how” and “why” certain Information Operation campaigns are successful. The use of thematic coding allows the research to develop an understanding of the content in the documents and media analyzed for this report. Triangulation of sources increases the reliability of the data as well as the data-gathering process. In addition to thematic coding and triangulation, the research uses Ethnography in an attempt to uncover how and why the Information Operations message affected the audience, believing culture plays a direct role in perception. Once all media campaigns have been broken down into their respective categories, this report uses descriptive statistics to add up the instances of successful and unsuccessful attempts, and uses an inferential statistical approach to analysis, generalizing a predicted effect of Information Operations on a larger population. This allows the research to identify what aspects of the social media make it effective (IV), and what the resulting second and third order effects are on Islamic State operations (DV). Once all data is gathered and analyzed, a conclusion is drawn using causal explanation, which calculates the validity of the hypothesis. Once a prevailing pattern emerges within both analysis using Ethnography and Thematics, the research evaluates whether or not this particular Information Operations message, based on historical data, proves effective.

CHAPTER FOUR

FINDINGS & ANALYSIS

The research conducted within the report shows that the Islamic State and the United States both prefer to use digital mediums for Information Operations with messages focusing on barbarism and similar fear-producing themes (reference Appendix A). While some of these findings already mirror what was evident during the literature review, the findings within this report differed slightly in that it showed that the overwhelming nature of the barbarism themes drowned out any other attempts by the Islamic State to diversify its messaging. As a result, a causal explanation appeared between the analyzed IVs and DVs. In instances of digital media actions (IV), using the themes of barbarism and the Arabic slur “Daesh”, a reaction (DV) was recorded. Most notably, the reactions by the Islamic State when exposed to Information Operations using Daesh in Information Operations were always negative. Trending away from themes of barbarism towards what the researcher describes as “Muslim Pride”, emerged in some of the more advanced publications this report studied, such as the Islamic State online magazine *Dabiq* (Al-Akhirah 2015, 5). During a review of this publication and others, this report found that the Islamic State makes continued attempts to use the Muslim faith used as a justification for violence (Al-Akhirah 2015, 6). This shows a clear delineation in Information Operation efforts based on the target audience.

Determining the degree of achieved effects through any of these propaganda efforts proved to be challenging to this research project. In general, Information Operations (IV) that highlighted the barbarism of the Islamic State and the labeling of the Islamic State as “Daesh” appeared to have a causal relationship to the negative reaction (DV) of the target audience and negative perception (DV) of the Islamic State. This determination of effectiveness, admittedly a

very subjective assessment, came through the analysis of certain Islamic State media releases where its leadership threatened to attack those labeling them as Daesh (Randall 2014, 1). Game Theory appeared as a tool for both the United State and the Islamic State as each sought to elicit a certain reaction from the opposing side. There were multiple instances of both the United States and the Islamic State provoking each other in order to achieve a desired response. Both sides of the conflict frequently used Focalism, in addition to Game Theory, but more so within the Islamic State due to the previous terror attacks against the United States. In one such instance, the cognitive bias of anchoring based the 9/11 attacks resulted in an increased effectiveness of the message with its audience in the United States (Perez 2015, 1). Yet, the same cognitive bias proved a disadvantage to the Islamic State with the use of fear-inducing themes against a sympathetic Muslim audience. This paper concludes that even governments and politicians are bound to Game Theory and Focalism if the populace themselves are fearful of a terror attack on their home country. Ultimately, sometimes the best way to influence a government to change is not to target the government at all, but rather target the populace themselves.

(Finding #1 – The Barbarism of the Islamic State is an effective Information Operations Theme for the United States – Supports Hypothesis)

During the course of this case study on the Islamic State media operations, the research uncovered continued use of the themes of barbarism. Of the 10 Information Operation campaigns analyzed, the violent and ruthless nature of the Islamic State was evidenced in almost every one (reference Appendix A). Interestingly enough, both the Islamic State and the United States propaganda efforts equally highlight the barbarism of the terror group. This indicates that the Islamic State is partially ignorant of the effects of their own propaganda. For

example, a recent Islamic State video filmed in Afghanistan and released online shows the execution of tribal leaders with explosives tied around their bodies (McKenzie 2015, 1). This video prompted an immediate response from the Taliban, who promised retribution to the Islamic State for the killing of the village elders (McKenzie 2015, 1). For a group that is trying to build allies in Afghanistan, this effort runs completely counter to that end state. The same theme of barbarism is also present in propaganda by the US, such as the late 2014 State Department YouTube video showing the killing of Muslims in the Caliphate via crucifixion, shootings, and beheadings (Labott 2014, 1). Even in one of the first highly publicized media events by the Islamic State, the beheading of James Foley, the Islamic State theme focuses on the brutality of the execution by beheading (Friis 2015, 1). Here the paper assumes that based on the reactions of the Taliban to the video killing elders, and the disgust of the global community to the beheading videos, that barbarism is an effective theme against the Islamic State.

This degree of violence targeting Muslims and non-Muslims alike is nothing new for the Islamic State, as this group developed significant notoriety from multiple, highly publicized executions over the years (Friis 2015, 1). Interestingly enough, some countries in the War on Terror such as Egypt advertise their own atrocities against the Islamic State on social media by posting pictures of the corpses of Islamic State fighters on Facebook (Youssef 2015, 1). The research proposes that engaging in the same barbaric actions while fighting the Islamic State only strengthens the group's narrative, and is an ineffective means of influencing hearts and minds through social media. What is puzzling to this report is the reasoning of the Islamic State for always advertising their barbarity to the rest of the world. The paper hypothesizes that it is the refusal or inability of the Islamic State to engage in rational approaches to Information

Operations that causes them to highlight their barbaric nature. While this theme of barbarism may be effective in terms of producing fear from the targeted population, it is ineffective in winning the hearts and minds of the citizens of their own Caliphate.

With respect to the theme of barbarism, Game Theory shows why Information Operations highlighting barbarism could be an effective tool for the Islamic State. Game Theory determines that a country targeted by an Information Operation campaign threatening terrorism will respond accordingly by increasing spending on security measures (Fuka 2015, 3). In the case of the Islamic State, Game Theory explains the effectiveness of barbarism in causing the reaction of fear. This is seen in a recent media campaign through Twitter in April of 2015 where the group threatened another 9/11 style attack on the US (Perez 2015, 1). Here the Islamic State leverages the use of Game Theory to make its media operations targeting the United States effective. Whether or not there is threat reporting to substantiate the risk of attack, the citizens of the targeted country likely respond with fear, thus producing the desired effect of the Information Operation.

Focalism, unlike Game Theory, demonstrates why barbarism works against the Islamic State, and is therefore an appropriate theme for the United States to leverage in its own efforts. The barbarism themes present in Islamic State Information Operations, such as those showing beheadings of civilians or 9/11 themes, only serve to cause the target population to react in disgust and anger (Berman 2014, 1). As with any cognitive bias, the user bases his or her reaction to the Information Operations in an experiential manner, as opposed to any rational thinking (Greenberg 835, 1999).

The data showing that Information Operations themes highlighting Islamic State barbarism as an effective theme supports the hypothesis that a carefully selected propaganda

theme such as barbarism can damage the ability of the group to operate. The research does not support a reciprocal approach of barbarism against the Islamic State, such as the Facebook posting of mangled Islamic State corpses, as an effective means to the social media fight. Here the report recognizes that such an approach of violence mirroring that of the Islamic State only serves to validate their existing narrative.

(Finding #2 – Digital mediums such as social media are effective because they reach a larger and more varied target audience – Supports Hypothesis)

Ninety percent of the Information Operations studied within this report utilized a form of digital communication (reference Appendix A). The reason for this digital trend is due to many disadvantages that analog distribution presents. On 16 March 2015, the United States airdropped leaflets into the Islamic State capital of Al-Raqqah in an effort to counter recruitment efforts (Ackerman 2015, 1). With over 60,000 leaflets spread around the area, anyone caught with such propaganda in their possession would face swift punishment from Islamic State forces (Ackerman 2015, 1). The use of analog media allows for a more focused and localized targeting, but exposes the same population to a high degree of risk in attempting to retrieve or view such literature. While the target audience of this media campaign was limited to the Al-Raqqah area, if the media drop used conduits such as Twitter, YouTube, and Facebook, it would have provided dramatically increased exposure for Information Operations. This is the approach that the Islamic State took as early as 2013, where it overtook other jihadist groups online by “...asserting its authority in the jihadist forums...adopting a more disciplined online presence” (Azman 2014, 10). This difference in approaches shows that while analog Information Operations targeting the Islamic State can be effective, the effort ends up localized, with disadvantages emerging due to the danger to the target audience itself if caught viewing

the leaflets themselves.

The application of Game Theory exists here given the United States knows an action will be elicited through a pamphlet drop in the capital of Islamic State-held territory. The report proposes that in response to the leaflet drop, Islamic State forces will restrict the ability of the population to move about out of concern they might come upon materials deemed offensive or blasphemous. As the Islamic State reacts by pushing people away from analog media and applies ever-increasing restrictions, it pushes them towards social media and other online sources, as well as building resentment within the population itself. The United States government, realizing the action vs. reaction at play, anticipates these Game Theory based responses, and plans two or three moves ahead, similar to a chess game.

The Islamic State, more so than the United States, uses Focalism effectively throughout the social media battlefield through the frequent and accessible nature of the digital content. The constant barrage of propaganda favorable to the group easily overwhelms the minimalist approach by the United States, as evidenced in the 2015 Gawker article *The US Government's Piss-Poor Anti-ISIS Propaganda Campaign* (Arkin 2015, 1). After enough iterations of the viewing of Islamic State propaganda, viewer develops a cognitive bias, and now becomes anchored to the concept of Islamic State legitimization.

The use of social media as a medium for an effective Information Operations campaign supports the hypothesis that digital mediums can reach a larger target audience, and as a result, more severely disrupt the ability of the group to operate. This use of a digital social media campaign demonstrates a causal relationship to the ability of the United States to affect the population of the Islamic State and disrupt its operations.

(Finding #3 – The labeling of the Islamic State as “Daesh” is an effective Information Operations theme – Supports Hypothesis)

The research into the meaning of Daesh during this case study showed varied definitions and translations into the English language. According to the Terrorism Research & Analysis Consortium (TRAC), Daesh is a Latin acronym formed from the Arabic phrase “Dawlat Islamiyah Iraq Sham”, translated as “Nation of Iraq/Greater Syria or the Levant” (Ostaeyen 2015, 1). Although the literal translation of Daesh has no meaning, among the various anti-Islamic State groups operating in the Middle East and Eastern Africa, it undertook a new definition of “...to thread underfoot, trample down, or crush” (Ostaeyen 2015, 1). Over the last year, the acronym Daesh has slowly transformed into a potent propaganda tool used to infuriate the group’s fighters and their leadership. If one wonders whether the label is an effective Information Operations theme, they need look no further than to the reaction of the Islamic State, which posted messages threatening to cut the tongues out of those caught speaking it, and also uploaded a video showing a young boy whipped 60 times for using the label (Rahman 2015, 1). The United States government already considers the use of the term Daesh effective, as it was present in two out of three media campaigns this research report reviewed. In late 2014, France’s Prime Minister had an even simpler reason for the use of this label when he stated “...this is a terrorist group and not a state. I do not recommend using the terms Islamic State because it blurs the lines between Islamic, Muslims, and Islamists” (Randall 2014, 1). This comment demonstrates how the use of Daesh instead of the Islamic State acts to delegitimize the concept of the Muslim Caliphate. Here the causal relationship is clear between the Information Operation using Daesh, and the angry response from the Islamic State. The report concludes that in addition to the barbarism theme cited above, that the label of “Daesh” is

also an effective tool against the group.

The research shows that the use of Daesh produces the desired response from the Islamic State, and that Game Theory provides the rational for this action. Historical evidence shows that the use of this Arabic slur results in a hateful acknowledgement the label by the group, followed up by threats against those using the name (Randall 2014, 1). The continued use of this label acts to spite the group and force them to expend time and energy to defend themselves from what they perceive as an offensive term. This report concludes that the United States knows this term offends the Islamic State, and continues to use it, knowing it requires a response and corresponding rebuttal from the group. In a news article by *Western Journalism* in 2015, the Australian Prime Minister Tony Abbot, explained his rational for using Daesh to refer to the Islamic State, "...doing what they don't like has an instinctive appeal" (Koski 2015, 1).

Another reason this report asserts that Daesh is an effective theme against the Islamic State is due to Focalism. As stated earlier in this report, the origins and meaning of Daesh have evolved over the years, partly in terms of the reaction of Daesh to the slur, but also because of how Islamic State opponents began interpreting it (Ostaeyen 2015, 2). The meaning of Daesh is debatable, even according to Arab scholars, who say it could mean something as mediocre as "...strife between two tribes...", or something far more disparaging such as "...felon...dust...or to trample or crush underfoot" (Ostaeyen 2015, 2). The more the opponents of the Islamic State began using the slur, the more fixated the Islamic State became on the label. The original meaning of the word soon became irrelevant as the Islamic State anchored itself to the most offensive definition. The Focalism here culminated when the United States and its allies began using Daesh to describe the Islamic State publically, refusing to acknowledge the creation of a supposed Islamic Caliphate (Ostaeyen 2015, 3). This study believes this highly publicized use

of Daesh by the West represents one of the most intelligent and effective Information Operation actions taken so far against the Islamic State. With almost no resources spent, munitions dropped, or Soldiers at risk, the United States conducted a very significant offensive action against the Islamic State. The continued negative treatment of the Islamic State and its association to the label of Daesh forcibly anchored the group to the label and its new meaning.

The reaction of the Islamic State to the label of Daesh supports the hypothesis that disruption is achievable through a derogatory Information Operation campaign. This report submits that both Game Theory and Focalism increase the effectiveness of the use of Daesh against the Islamic State. Every instance of Information Operations in Appendix A using the label Daesh has an observable effect on the Islamic State.

(Finding #4 – Islamic State Media Operations are effective because they are customized to a specific target audience).

Even before the advent of the Islamic State, the method of appealing to a small, but highly vulnerable part of the Muslim population was not unusual. While this report submits that the Islamic State utilizes social media effectively, it also states that Al-Qaeda was one of the first to perfect its use in its online publication (now defunct) of *Inspire Magazine* (Levin 2015, 2). *Inspire Magazine* was notable at the time because its founder, Samir Zafar Khan, referred to as an “operational commander” by President Obama, was born in Saudi Arabia, but grew up in New York State (Spencer 2014, 1). *Inspire Magazine* did more than suggest jihadist themes; it provided detailed tutorials on building bombs at home using basic kitchen items (Spencer 2014, 2). That tactic lives on in the Islamic State today through its own publication titled *Dabiq* (Al-Akhirah 2015, 1). Curiously, a review of a 2015 issue of this Islamic State publication found little to no references to the barbarism so prevalent in much of their Twitter

and YouTube videos. Rather it was almost entirely based on religious references and ideology-based arguments supporting the conflict, all associated with Koranic verses (Akhirah 2015, 2). This represents a significant deviation from the trends of the research conducted for this report. Here the research shows that the Islamic State is precise in their use of propaganda, recognizing that specific effects are focused certain target audiences, such as the execution of nonbelievers on their knees for “rejecting” Islam (Wagner 2015, 1).

This separation of target audiences is helpful because it shows the key to an effective Information Operations campaign targeting the Islamic State. The United States State Department acknowledged that their target audience for media operations was not necessarily the terrorists, rather “...it’s the people the extremists are talking to, trying to influence...it’s the people who have not yet become terrorists” (Altman 2014, 1). This report submits that a measure of the effectiveness of Information Operations for the United States is not only the accessibility of target audience, but also if the message disrupts those intending to join the Islamic State or contribute financially to its efforts. This study acknowledges that within this report, such precise measures of effectiveness were not able to be determined. However, a general causal relationship between the target audience and selected theme existed, particularly through the absence of barbarism in the Islamic State magazine *Dabiq*.

Here is an example of how the Islamic State uses Game Theory in targeting its own populace with effective propaganda. This report submits that the Islamic State knowingly appeals to the devout Muslim, a common member of the sample population within its territory. Knowing that the effects on the population by religious references, Islamic State media operations are tailored to illicit the desired reaction, whether it is a deep-felt pride in the Muslim faith, or rage against those determined to be non-believers or invaders. This approach is

particularly apparent in the Islamic State inspired magazine *Dabiq*, through its heavy quoting of the Koran to support current actions by the ground as well as their designed end state – the Islamic Caliphate (Al-Akhirah 2015, 3).

Focalism occurred through the reasoning behind why the Islamic State chose certain themes for selected target audiences. In Ingram Haroro's *Three Traits of the Islamic State's Information Warfare*, Haroro states that "...reach, relevance, and resonance are the underlying imperatives guidance the group IO campaign" (Ingram 2014, 1). For the purposes of this research paper, resonance is what provided the proof of cognitive bias at play in Islamic State Information Operations. In particular, it was the "...exploitation of psychosocial forces in its audience..." that caused the determination that anchoring was at play.

This report submits that Ethnography is the key to understanding why the Islamic State changes their rhetoric to suit their target audience. In *Visual Propaganda and Extremism in the Online Environment*, Douglas Lovelace comments on the ethnographic aspect of what makes Information Operations effective or ineffective: "...human communication is far more complex, and approaches to persuasion, outreach, and messaging must recognize the involvement of multiple audiences" (Lovelace 2014, 106). Lovelace makes the point that messaging itself does not take on any meaning until viewed through the lens of the target audience (Lovelace 2014, 106). Therefore, knowledge of that audience, their values, norms, language, religion, and other sociocultural aspects of their life, are critical to creating an effective Information Operations campaign. The effective nature of these customized Information Operations supports the hypothesis that certain themes can have a disruptive effect on Islamic State operations, and contribute to delegitimizing the organization. This report, like Haroro Ingram, assesses that the "socio-cultural" aspect of messaging is critical in the ability of the messaging campaign to

become relevant to the audience (Ingram 2014, 2).

(Finding #5 – The Islamic State is highly responsive to Information Operation opportunities – Neither supports or contradicts the hypothesis)

The research indicated that even within the global Muslim extremist community, the Islamic State is constantly engaging in its own internal public relations fight against Al-Qaeda, Al-Nusra, and other terror groups operating in areas of the Middle East and Africa (Azman 2014, 1). Even with the constant propaganda directed against the Islamic State from other groups, it had little impact on the organization as the whole. Rather, the Islamic State showed continued deftness of maintaining its online persona through digital mediums. However, the author noted that the equal targeting of both Sunni and Shia Muslims alike by the Islamic State frequently prompted attacks from groups it might consider allies. This double-edged approach to partnerships with other extremist groups requires that the Islamic State must be constantly on guard from attacks originating from a variety of sources. While the Islamic State continues to leverage recruiting and financing efforts through social media, according to *Jane's Intelligence Review*, little to no significant and organized counter-efforts resulted against them (Evans 2014, 6). Another advantage the Islamic State has that the United States does not is the ability to operate free of bureaucratic and legal issues prevalent in Western nations or Europe (Metz 2015, 1). This lack of operational constraint, coupled by a highly mobile and effective Information Operations arm, allows the Islamic State to constantly out-perform and outmaneuver its enemies. The also research shows the Islamic State to be actively and aggressively pursuing its own social media campaign through English-language based channels (Evans 2014, 1). In fact, the Islamic State, as well as Al-Qaeda affiliated groups, sharply increased their activity and focus on English-speaking audiences in the last four years (Evans

2014, 1). This multi-pronged effort included heavy emphasis on "...discussion forums and blogging communities, to Facebook groups and the Twitter and YouTube activism" (Evans 2014, 2).

Game Theory explains the responsive nature of the Islamic State to Information Operations opportunities, particularly when it comes to recruiting from other Islamic extremist organizations. In an article titled *Pledging Bay'a: A Benefit or Burden to the Islamic State*, Daniel Milton discusses how the Islamic State leverages the desire of perspective recruits to join a Muslim Caliphate. Here Milton explains how it is important to make the distinction between vowing to support the Islamic State versus a pledge or oath as a Bay'a entails (Milton 2015, 2). The original Bay'a referred to here is an ancient oath given to the Prophet Mohammed, where individuals would swear allegiance and their lives to him (Milton 2015, 2). In the current day, this tradition has involved the use of the Bay'a to swear allegiance to the ancestors of Mohammed, knowns as the Caliphs (Milton 2015, 3). It is the Information Operations arm of the Islamic State, appealing to the devout Muslim in many of its followers by encouraging a sacred vow, based on Koranic teaching, to commit to their cause. The research concludes that Game Theory is the reason why the *Pledging Bay'a* is effective for the Islamic State. Recruiters for the organization know Muslims will be compelled to "answer the call" and offer allegiance to the Caliph of the Islamic State, rather than make an informal and unbinding commitment to the group.

This research demonstrates that an effective Information Operations plans targeting the Islamic State must not only include the correct themes through a digital medium, but rather the correct timing to take advantage of certain opportunity windows. In contrast, the United States prefers to take a more passive approach to Islamic State efforts by censoring religious hate

speech or violent jihad-based propaganda (Shea 2012, 1). The research shows that in order to make the Information Operations effort targeting the Islamic State effective, the United States must learn to evolve and adapt as the Islamic State has, leveraging social media and other online channels, to battle against the continued onslaught of terror messaging. The use of Game Theory and Focalism are key to identifying weaknesses in the armor of the Islamic State. While the finding does not support or contradict the hypothesis, it supports the research to address the problem statement by showing how the United States can learn from the Islamic State in terms of media operations.

(Finding #6 – The Islamic State relies on Anchoring to make its Information Operation Campaigns effective – Neither supports or contradicts the hypothesis)

In mid-2014, supporters of the Islamic State launched one of their first social media campaigns threatening the United States with revenge-based attacks if it moved against Islamic State interests (Kumar 2014, 1). What was unique about this media campaign were the images of 9/11, the murder of ambassador Stevens, and dead Soldiers, all intermixed into the message itself (Kumar 2014, 1). While the messaging theme was consistent with previous propaganda, the inclusion of prior successful terror events against the United States showed that the Islamic State is willing to use anchoring to increase the effectiveness of its Information Operation efforts. This pattern of linking real-world terror attacks to propaganda also emerged in a video released during the writing of this report, titled *Dawning of a New Age* (Schwartz 2015, 1). In this video, the Islamic State relies on Focalism by linking a “second blow” to the US currency standard, by citing the “first blow” of the 9/11 terror attacks to substantiate the threat (Schwartz 2015, 1). Claiming the 9/11 attack as its own is not based on factual evidence, considering it is common knowledge that it was Al-Qaeda, through the leadership of Osama Bin Laden, which

orchestrated the attacks against the United States. The continued attempts to link successful and historical terror attacks to its own show the intent of Islamic State to encourage cognitive bias among its target audiences. However, if the reader looks at the stereotypical responses of the Islamic State to the use of the label “Daesh”, the research indicates that the same anchoring concept is useful in constructing an Information Operations message targeting the group. The Islamic State binds themselves through the same cognitive bias it tries to instill and leverage against the United States. Anchoring can also be a tool to encourage false hope among its audience, which is why it is frequent strategy of the recruiting arms of the Islamic State. In May of 2015, the open source media organization *London Evening Standard* reported “...3 London schoolgirls who ran away to join the Islamic State were probably groomed by highly coordinated social media experts” (Watts 2015, 1). Even the Islamic State recruiting commander who met the girls on the border remarked how young and impressionable they were (Watts 2015, 1). This report submits that mental weakness within this naïve audience provided the ease of anchoring required to win their loyalty. This assessment mirrors that of the Islamic State commander herself, who stated “...IS is not stupid, they have educated people who know how to deal with the psychology of others” (Watts 2015, 1). Here the data highlights that it is the psychology of the audience, rather than factual messaging, that makes Focalism effective.

Using Game Theory in an effort to explain the use of Focalism is challenging. This report acknowledges that Game Theory, used within the context of terrorism, involves the “...valuation of the likely concession to be granted by a government...based on a probability distribution, conditioned on past governmental concessions” (Sandler 2003, 3). Based on this definition by Sandler, this study hypothesizes that the Islamic State recognizes the role emotion and sociology as well as logic plays in its target audience. Indeed, the Islamic State does not

need to worry about making a cohesive and rational argument to induce fear when this state of mind exists by invoking images of a historical mass-terror attack. Thus, the research discovered that the Islamic State relies on the “experiential” aspect of social media to encourage “death-related thoughts” (Greenburg 1999, 1). The Islamic State, knowing that the audience will react to in fear due to the anchoring approach, assumes that Game Theory causes the fear to have second and third order effects throughout the targeted country.

Efforts by other terror groups show the use of anchoring to persuade their own citizenry to rise up against Western powers as well. Before the advent of the Islamic State, Al-Shabaab showed the world how a powerful narrative focused on “...jihad as a legitimate act of self-defense by a Muslim people...occupied by imperialist Christian invaders...” could appeal to moderate and radical Muslims alike (Menkhaus 2014, 313). Quoting historical true events and imbedding them within an extremist ideological message of hate against the West represents a skilled Information Operations maneuver, leveraging historical Muslim oppression to create the façade of a current day crisis. Ultimately, while anchoring does not prove or disprove the hypothesis, it aids in discovering future messaging themes and mediums that produce effective results against the Islamic State.

(Finding #7 – Analyzing Historical Behaviors by other Islamic Extremist Groups help develop Information Operations against the Islamic State – neither support nor contradict the hypothesis)

In order to determine effective means of disrupting Islamic State efforts through Information Operations, this research studied previous media campaign efforts by global terror groups Al-Qaeda and Al-Shabaab. In one such effort, Al-Qaeda used a “...cartoon movie to recruit children to join the jihad against the West” (Caulfield 2011, 1). This example of

Information Operations by Al-Qaeda shows a highly customized effort, focused at a very specific target audience through a medium expected to have a high degree of visibility to them. Another similarity with Al-Qaeda, like the Islamic State, is that it glorifies violence to children in an attempt to build a new generation of fighters. This cartoon however uncovers an exploitable weakness, which is the importance of family to all Muslims, extremist or not. This report submits that the willingness of terror groups to target children in their recruiting campaign ultimately acts to delegitimize their efforts in the public spotlight. This devaluation of family by terror groups is an exploitable theme for anti-Islamic State social media. Al-Qaeda also frequently interprets world events, natural disasters, economic misfortune, and even terror attacks by others groups, through its own distorted propaganda lens (Gendron 2007, 2). The Islamic State also used this tactic, who like Al-Qaeda, quickly exploits the "...battle of ideas and sees its media strategy as crucial and complimentary to its operational campaign" (Gendron 2007, 2). Here, the research is questionable on whether or not a tactic of perpetuating misinformation against the Islamic State would even work in the same manner. Rather than attempting to mirror this tactic by Al-Qaeda, this study recommend that instead the theme focus on the dishonesty of claiming attacks by the Islamic State, and how Muslims, by their faith, are an honest people. In May of 2015, the Islamic State claimed through social media their first attack on United States soil, targeting a "Muhammed Art Exhibit and Cartoon Contest in Garland, Texas" (Chandler 1, 2015). Although government sources have yet to confirm or deny the claim, the global media point to the Islamic State claiming credit for attacks in Tunis, Yemen, Australia, and Paris, all with little to no evidence of their actual involvement (Chandler 2, 2015). The challenge here, more so for the intelligence community, is to determine what if any extent of communication that may have taken place between the Islamic State and

individuals that participated in attacks. If the United States dedicates Information Operations resources against non-existent Islamic State efforts, it risks not only wasting time and effort, but also enables the manipulation through the reaction towards Islamic State media efforts.

Al-Shabaab, like Al-Qaeda, also distinguished itself as among the most sophisticated and prolific social media users of jihadi media. Among its more recent efforts, the 2013 Nairobi Mall attack highlighted their willingness to use online mediums through their “real-time tweets” of the attack as it unfolded (Menkhaus 2014, 309). Similar to the Al-Qaeda cartoon referenced above, the social media by Al-Shabaab revealed certain weaknesses within their organization, such as the inability to control themes of messaging, as well as the use of GPS information for targeting purposes (Menkhaus 2014, 313). Real-time media reporting by terror fighters can provide the intelligence needed to conduct lethal operations as it did for an Islamic State fighter who made a 4th of July threat against the United States (Ross 2015, 1). The targeting may not only come from Europe and the United States, but also other terror groups, such as the Taliban who recently threatened retribution against the Islamic State for their execution of multiple village elders in Afghanistan (Mackenzie 2015, 1). This provides some context as to why the Islamic State, while encouraging social media praising its actions, wants to ensure it tightly controls the messaging theme for its audiences. An Intelligence Brief by the Columbia International Affairs Online (CIAO) think-tank makes the same analysis as this report when evaluating how the Islamic State controls information technology within its borders: “...the effect of this is a monopoly on messaging, with nearly all imagery of conflict zones coming from the group itself” (Soufan 2014, 1). The historical behavior by these terror groups, combined with current reporting on the Islamic State, indicate multiple points of weakness the United States could leverage in an Information Operations campaign against the group.

Game Theory is observable in both Al-Qaeda and Al-Shabaab for the same reasons behind its use in the Islamic State. In a 2014 issue of Al-Qaeda's online (now defunct) publication titled *Inspire*, Al-Qaeda suggests attacking not just American government and military officials, but also "Western commercial airliners" (Spencer 2014, 1). This report speculates that fear and resulting effects are behind the reasoning for the threats on commercial airlines. Increased fear of an attack has the capacity to not only reduce ticket sales, but also force increased security costs. Such effects emerge in an even greater context when evaluating the spectacular terror attacks of September 11, 2001. Even with the localization of short-term financial effects, the long-term the economic impact to the United States was severe, requiring a massive increase in government expenditures dedicated to the security of the country and its citizens (Makinen 2002, 2). This study eventually came to consider Game Theory akin to playing a game of chess. The opposing players must think many moves ahead, seeing the enemy response and continued counter-responses into the near future. Interestingly, one area where Al-Shabaab and Al-Qaeda differ is their approach to utilizing cyberspace. While Al-Qaeda prefers to focus on conducting a hearts-and-minds "counter-narrative", Al-Shabaab seems to take a more disorganized and amateurish approach, described as "venal" by Ken Menkhaus in *Al-Shabaab and Social Media: A Double-Edged Sword*. While both groups utilize Game Theory, each is looking to elicit a different reaction as well as produce different effects on the targeted population.

The use of Focalism within Al-Shabaab and Al-Qaeda is just as common as it is within the Islamic State, but the anchoring bias tends to focus on different themes. This report submits that while Al-Qaeda demonstrates a more measured and balanced approach to propaganda, eager to build allies and a cohesive movement involving multiple terror groups, Al-Shabaab

develops a localized approach to anchoring based on the current situation in its home territory of Somalia. This is due to Somalia currently existing as “...as collapsed state with no functional government...” and as a country that provides a completely “unregulated environment” (Menkhaus 2014, 311). This represents a unique opportunity for Al-Shabaab to shape its narrative with little or no challenge from other local terror groups or government forces. The plight of Somalia enables the group to “...reinforce the store of external oppression and Somali victimhood...”, turning the mission of the group into a “...coherent belief systems that enjoys widespread currency” among Somalis (Menkhaus 312, 2014). Here, the ability to make Focalism effective resides in Ethnography of the human and geographical terrain. The lesson for the reader is that culture ultimately drives the effective or ineffective nature of Information Operations. The Islamic State is more similar to Al-Shabaab in this case, as it does not hesitate to take extreme measures to make its point, such as the recent public flogging a young boy in a town square for referring to the Islamic State as Daesh (Rahman 2015, 1).

The research shows that identifying and exploiting the weaknesses of prior Al-Qaeda and Al-Shabaab inspired Information Operations are a means to determining current and effective Information Operations campaigns against the Islamic State. This identification of effective themes, such as the strength of Muslim families, reveals potential messaging approaches in targeting the Islamic State. While this research does not necessarily validate the hypothesis, it provides a body of peer-reviewed data to help this research project discover effective means for targeting the Islamic State through Information Operations. The lack of peer-reviewed data on the Islamic State and their Information Operations represents a delta, addressable through the examination and research of other historical terror groups.

CHAPTER FIVE

CONCLUSION

Lethal vs. Nonlethal Approaches

Current reporting from Rand Corporation indicates that the US State Department and Department of Defense spend over 250 million USD per year on Information Operations efforts to combat the Islamic State and similar efforts from other terror groups (Paul 2015, 1). The same report highlighted the difficulties in measuring effectiveness of the ability of the United States to “...inform, influence, and persuade” audiences (Paul 2015, 1). Paul argues, and this report agrees, that these ongoing Information Operation efforts, while sizeable in terms of resources, are ineffective unless such metrics of effectiveness are generated and measurable. One can only surmise that the Islamic State itself dedicates a mere fraction of its finances to the same efforts, yet appears to perform at a degree ahead of the United States. While this Information Operation fight occurs, the United States and its allies are making steady progress in another area, disrupting the ability of the Islamic State to create and distribute digital propaganda in a manner outside digital mediums. The United States, due to its resources, and technological advantages, is able to data mine and exploit social media for lethal targeting information, unlike the Islamic State, which has no such capability. This difference in approaches was on full display during the creation of this report, with the top hacker of the Islamic State, Junaid Hussain, killed by a drone strike near the Syrian city of Al-Raqqah (Meredith 2015, 1). Although government sources have not confirmed it, open source media organizations reported that Hussain was the head of the “Cybercaliphate”, and exerted significant influence in hacking attempts, online recruiting, as well as financing of the Islamic State (Meredith 2015, 1). His killing may have done more to disrupt the ability of Islamic State

to recruit and finance through social media than any media campaign the United States may have operated. This begs the question of whether a lethal approach that targets the Islamic State through social media is ultimately more effective in the long-term than a propaganda battle between the group and the United States. There is also evidence that the Islamic State's brutal approach to warfare and Information Operations is beginning to make it a target of other extremist groups. In a report by NBC, which also occurred during this report, a *Dark Net* website claimed that it would be live-broadcasting the torture and killing of 7 Islamic State fighters, completely uncensored through the "dark web", an unrestricted and often illegally used sector of internet infrastructure (Roberts 2015, 1). While the United States and its NATO allies would never employ or endorse such tactics publically, this report ponders whether behind the scenes the West and its allies are secretly delighted at such a reversal of fortunes for the Islamic State. This report submits that this is an excellent example of how the second and third order effects of Information Operations are profound and often unexpected. The Islamic State, while attempting to induce fear and disrupt its enemies through Information Operations, may in fact be directly responsible for the creation of other terror groups dedicated to fighting their cause.

United States vs. Islamic State Information Operations

The body of research conducted during the course of report demonstrates that while successes have occurred on both sides of the conflict, the Islamic State is far more agile, seasoned, and focused on their use of social media as an Information Operations weapon than the United States. In particular, the study of the Islamic State publication *Dabiq* showed how advanced and methodical this group could be when it comes to creating an excellent digital magazine to entice followers. Multiple journals and scholars cited in this report, to include the Counter Terrorist Trends and Analysis Consortium, consider the Islamic State to be a far more

dangerous and evolved terror organization compared to Al-Qaeda (Azman 2014, 8). While researching what Information Operations were effective against Al-Qaeda proved useful to this report, this research acknowledges a disparity between the two groups not known at the beginning of the report. In order to identify an effective media weapon against the Islamic State, the research should focus on the examination of Information Operation campaigns already in existence. The research concludes that by targeting the Islamic State through a digital medium, and using the themes of barbarism and Daesh, the United States can effectively disrupt Islamic State operations. Whether this report or the reader agree that Information Operations are an effective tool, the research shows that the Islamic State successfully circumvents perceived weaknesses in their organizations, such as training, equipment, and technology, by leveraging social media. Attempts to censor or remove media access, as Game Theory would suggest, only result in the group adjusting their tactics to evade those restrictions. Passive responses, such as “truth-based reporting”, and the deep held belief that at the end of the day, fact and morality will prevail in social media, will do little to reduce the digital warfare capabilities of the Islamic State (Metz 2015, 2). This report proposes that the world acting horrified each time terror groups post execution videos acts as an injustice, and is just an excuse to sit on the sidelines and take no real action. The data however shows that the other extreme is also equally problematic, where nations such as Egypt post their own mass killings of terror groups members on Facebook (Youssef 2015, 1). A successful information operations campaign, while leveraging effective themes through digital mediums, must be grounded in a moral authority to maintain credibility against the barbarity of the Islamic State.

Active vs. Passive Approaches to Information Operations

Whether through magazines or digital mediums, Islamic State multi-lingual campaigns are how the group raises money, recruits followers, and spreads its propaganda around the world (Ingram 2014, 2). These efforts often rely on Focalism and Ethnography to make their outreaches effective. Where Ethnography allows them to tailor messages to specific audiences, Focalism enables the Islamic State to use real world events, such as the original Gulf War, to enable a false narrative that the West is a threat to the sovereignty of all Muslim nations. It is a mixture of just enough truth to make the falsehood believable, and it is a skilled delivery on their part. Compared with previous tactics from insurgent groups, the Islamic State stands apart in their “advanced use of media platforms...while executing an attack” (Tadjdeh 2014, 1). These efforts have provided concrete results such as the addition of nearly 20,000 foreign fighters to their ranks in the last two years alone (Walker 2014, 20). Finding a way to disrupt the ability of the Islamic State to use social media would severely restrict their ability to appeal and fundraise globally. However, this report believes the United States must be careful in violating the civil rights of law-abiding citizens in its attempts to censor either anti or pro-Islamic State media. The risks of such an approach are evident in a *National Review* article titled *Fatwas Against Free Speech: The US Needs to Resist it*. In this publication, Nina Shea explains how the Arab world, while protesting and demanding the removal of cartoons critical of the prophet Mohammed, openly taught that Jews are “apes” and Christians are “pigs” (Shea 2012, 24). Shea sums up her assessment with the statement that “...to comply with Muslim blasphemy laws would be to undermine our liberal democracy” (Shea 2012, 25). This is what the research aims to uncover. Yet, the same research also revealed it the critical nature of replacing, rather than removing the Islamic State from its positions of power. The group, with all its terror activities and human

rights violations, currently provides critical social services in war-torn areas, infrastructure support, and controls huge swaths of agriculture that feed the population. Removing them from power, while not considering the resulting power gulf, could create another humanitarian crisis within Islamic State held territory (Soufan 2014, 1).

Game Theory and Focalism

During the course of this report, both Game Theory and Focalism served to explain why certain methods of Information Operations were effective or ineffective. Game Theory tended to support why barbarism was an effective fear-inducing theme, while Anchoring served to explain why barbarism worked against the Islamic State and in favor of United States interests. The research concluded that the barbarity themes are a double-edged approach to Information Operations by the Islamic State. Barbarism produces the desired effect of fear into the population, but that same disdain for barbarism alienates the Islamic State from another of their targeted population groups: young, impressionable Muslim families. Such reactions by target audiences are increasingly involuntary; as the exposure of the population to death-related thoughts prompts more fear-based biases intrude into conscious critical-thinking (Greenburg 1999, 835). Game Theory was particularly useful in understanding historically how economic terrorism emerged from the use of fear inducing themes, such as the massive forced expenditures due to the 9/11 attacks (Makinen 2002, 2). Game Theory and Focalism also helped explain how the label of Daesh evolved from being a term of disputed meaning among Arab researchers, to a word that single-handedly insults the Islamic State more than any other phrase (Ostaeyen 2015, 2). The research shows that this cognitive bias of anchoring can just as easily be a weapon for the Islamic State as a weapon employed against them, as evidenced by the severe reactions from the group.

Future Avenues of Research

Significant hurdles remain in the future to answering the information gaps uncovered during the scope of this research, primarily the ability of researchers and news organizations to study the Islamic State without risk to themselves. During the research for this report, the torture and execution of world-renowned archeologist and Syrian scholar Khaled al-Assad by the Islamic State occurred for his refusal to support the group's aims to seize ancient antiquities (Black 2015, 1). This is a harsh reminder how anyone attempting to enter Islamic State controlled areas accepts a high degree of risk when conducting research, and might be tortured and killed for their efforts. Fortunately, social media is one area that the Islamic State has maintained a high degree of visibility on, and the United States government has not yet attempted to censor it from view. Much of the propaganda cited in this report is self-reporting by the Islamic State. This report reminds the reader that it was only in 2013 that the Islamic State broke away from Al-Nusra and Al-Qaeda to form their own group, with an extreme interpretation of Sharia Law and the desired recreation of the Islamic Caliphate (Weinberg 2014, 341). To date, very few news organizations successfully gained access and reported within Islamic State-controlled territory, one being VICE News. In late 2014, VICE News reporter Medyan Dairieh embedded himself into the group, successfully filming and reporting on the organization and their activities for a period of three weeks (Dairieh 2014, 1). While such video evidence of Islamic State activities is important to the research topic, what continually presents a problem is the lack of quality academic or peer-reviewed work on the group.

The inclusion of first-hand quantitative data is critical in the future evaluation of how and why certain information operations against the Islamic State are effective or not. Since the Islamic State in its current form is less than two years old, this report relied far too heavily on

reporting from media outlets instead of peer-reviewed works to prove or disprove the hypothesis (Milton 2014, 10). The indicators of effectiveness were determined purely based on negative reactions from the Islamic State, published through social media channels. In addition to the inclusion of peer-reviewed, quantitative data, future research needs to evaluate more than the limited number of propaganda pieces this research evaluated. This is what will allow future research to transition from a weak causal explanation focused on subjective evaluation, to a qualitative evaluation based on objective review.

Lastly, this report highlights why future researchers should make comparisons between the effectiveness of lethal and non-lethal approaches to Information Operations targeting the Islamic State. This report argues that data mining social media may be more effective in disrupting the Islamic State since it produces targetable intelligence for lethal operations, as opposed to continually dedicating resources to a non-lethal, information operations focus. In future research, metrics of effectiveness for both lethal and non-lethal approaches need a careful evaluation and comparison to determine which would better act to destroy the Islamic State itself.

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Appendix A – Information Operations Research

O Message	Source	Target	Theme	mm Meth	et Populat
1	State Dep	ISIS	Welcome	Youtube	ISIS famili
2	ISIS	US	We will bu	Twitter	American
3	US Militar	ISIS	DAESH's W	Twitter	ISIS Fighte
4	US Militar	ISIS	DAESH Re	Leaflet	Raqqa pop
5	Al Qaeda	Muslims	Al Qaeda i	Television	Muslim Yo
6	ISIS	US	We are wa	Messenge	US service
7	ISIS	Iraq	Mosul "Sp	Jihadi For	Iraqi Popu
8	ISIS	US / Britai	Blood of D	Youtube	British gov
9	ISIS	US / Afgha	Rejecting	Jihadi For	Afghan po

(click on table to open/active excel document)