ONLINE RADICALIZATION BEHAVIORS BY VIOLENT EXTREMIST TYPE

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Abstract

Existing research suggests that different types of violent extremist organizations utilize distinct approaches to radicalize and mobilize potential recruits online. Specifically, previous studies indicate that Violent Islamic Extremist (VIE) groups attempt to create virtual breeding grounds that mimic in-person socialization. Conversely, Radical Right Extremist (RRE) organizations forgo web-based community-building efforts, preferring instead to proliferate mass amounts of alternative ideological propaganda to subvert mainstream narratives. There is little research examining whether the phenomenon continues at the actor level among the individuals actually committing terrorist attacks. Therefore, this study qualitatively investigates whether web-based behaviors differ by actor type through a comparative case study analysis. To do so, the research explores the radicalization of perpetrators prior to six terrorist attacks in the United States.

The study tests the hypotheses that internet behaviors vary by actor type (H1), with VIE subjects presenting more interactive online engagement (HIa) and RRE subjects showing more one-way absorption of information (H1b). The resulting evidence does not support the hypotheses as little discernible difference has been discovered between the online radicalization behaviors that VIE and RRE actors partook in. In fact, the results suggest that if a difference does exist, it is that RRE perpetrators engage in more online interaction than VIE counterparts. However, this slight discrepancy results from a case with inconclusive data due to contradictory reports. Therefore, the findings show little significant difference in online radicalization among actor types.

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Finally, in memory of my mother, Dr. Leslie Gilbert, who inspires me daily and convinces me that with a little perseverance, anything is possible.

Halle Baltes

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Introduction

Radicalization is a process that leads from cognitive opening to extremist cognition or behavior. Traditionally, radicalization is considered to be a social phenomenon that occurs within social networks with direct interaction. However, advancements in technology, the rise of social media, and the ubiquity of the web allow the internet to mimic the socialization process. This has led to academic debate as to whether radicalization is possible in an entirely virtual setting. More recently, however, it has become increasingly evident that comparing the impacts of online versus in-person socialization creates a false dichotomy, as aspects of both modes are typically present in most contemporary cases. As such, studies have shifted to determining how the internet is utilized to augment radicalization. Existing research attempts to establish how the internet is employed by different types of extremist groups to recruit potential violent actors to their ideological cause. A comparative assessment between Violent Islamic Extremists (VIE) and Radical Right Extremist (RRE) organizations shows that VIE groups attempt to cultivate virtual communities that replace in-person socialization, while RRE actors hope to awaken aggrieved individuals to a cause by replacing mainstream cognition.[1] However, there is insufficient empirical data indicating how the targeted individuals engage with such attempts.

This study examines how violent radical actors connect with online content throughout the radicalization process. Existing literature suggests that VIE actors may undergo a more interactive virtual experience in which the exchange of ideas socializes radical ideology. Conversely, the web-based strategies of RRE groups insinuate that radical right actors consume extremist material with little two-way interaction. To test that assumption, this research

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[1] J. M. Berger, "Nazis vs. ISIS on Twitter: A Comparative Study of White Nationalist and ISIS Online Social Media Networks," Report (Center for Cyber & Homeland Security (GWU), September 1, 2016), https://apo.org.au/node/67247.

compares six case studies, three among each group, to uncover which trends were present during the radicalization process leading up to significant terror attacks in the United States. The information derived from this study is important for shaping law enforcement, counterterrorism, and intelligence policies aimed at preventing or interdicting the radicalization of domestic and homegrown violent extremists. The findings are particularly pertinent as the COVID-19 pandemic has heightened grievances and increased the cumulative time individuals spend online.

Part I: Literature Review

The following literature review is divided into three parts. First, it explores complex topics of radicalization and socialization. Second, it summarizes current debates surrounding the role the internet plays in the radicalization of ideological actors. Finally, it analyzes existing studies which compare internet usage by violent extremist type. For the sake of the study, extremist actors are defined as those who utilize terror and violence against civilians to achieve ideological, economic, religious, social, or political objectives.[2]

Radicalization and Socialization
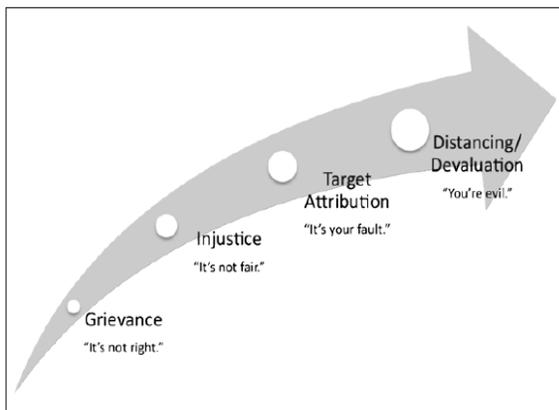
Figure 1: Borum's Four-Stage Model of the Terrorist Mindset[3]

Radicalization is a process that leads individuals or groups to reject accepted norms and legitimize violence. There are several theories that attempt to capture radicalization in useful, predictive models, each of which depicts successive, escalatory steps from cognitive opening to extremist event. For example, Randy

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[2] "What Is Violent Extremism?," Page, Federal Bureau of Investigation, accessed February 12, 2021, https://www.fbi.gov/cve508/teen-website/what-is-violent-extremism.
[3] Randy Borum, "Radicalization into Violent Extremism II: A Review of Conceptual Models and Empirical Research," *Journal of Strategic Security* 4, no. 4 (November 2011): 39.

Borum, a strategy and intelligence scholar, describes the process as having four stages. Borum's model, shown in Figure 1, begins with the establishment of the grievance, develops into a narrative of injustice, is followed by attribution of blame, and culminates with justifications of violence.[4] Borum's model is simple, clear, and representative of similar paradigms without focusing too heavily on specific ideologies associated with extremism. It demonstrates that the radicalization process does not require militant training or formal indoctrination. It is not an anomaly that occurs abroad, nor is it limited to officially recognized terrorist organizations. Instead, the radicalization process can occur in any setting in which aggrieved, at-risk individuals find violent justifications through extremist narratives.

Traditionally, exposure to and adoption of radical ideologies are examined through the framework of socialization, with some scholars defining radicalization as an inherently social process.[5] Social networks provide initial exposure to extremist ideologies and a space to normalize escalatory cognition and behaviors. Researchers examining the radicalization and socialization phenomenon in Peru's *Sendero Luminoso* insurgency explained that "friendship networks are extremely important for social radicalization, since they can become the main normative values source, they provide emotional rewards, sense of belonging, totality and significance."[6] The rejection of societal norms and the adoption of extremist perceptions may result in negative consequences; therefore, "the more costly and dangerous the collective action,

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[4] Randy Borum, "Radicalization into Violent Extremism II: A Review of Conceptual Models and Empirical Research," *Journal of Strategic Security* 4, no. 4 (November 2011): 39.

[5] Mohammed Hafez and Creighton Mullins, "The Radicalization Puzzle: A Theoretical Synthesis of Empirical Approaches to Homegrown Extremism," *Studies in Conflict & Terrorism* 38, no. 11 (November 2015): 960, https://doi.org/10.1080/1057610X.2015.1051375.

[6] Eli Malvaceda-Espinoza, Juan Herrero, and Jossue Correa, "Socialización y Radicalización Política En Militantes Del Partido Comunista Del Perú–Sendero Luminoso (PCP-SL)," *Convergencia Revista de Ciencias Sociales*, June 25, 2018, 1247, https://doi.org/10.29101/crcs.v25i78.4657.

the stronger and more numerous the ties required for individuals to participate."[7] Studies

conducted by Sageman and Stern in the early 2000s both highlighted the importance of social

interaction on the psychological radicalization process.[8] In fact, research conducted by Stern

suggested that peer pressure can, at times, be a more persuasive force than the overall objective

in pushing individuals toward radical beliefs and deviant behaviors.[9] Ultimately, the socialization

of radical ideals enables the psychological conditions necessary to foster extremism. It is this

social dynamic of radicalization that raises questions as to the role of the internet within the

overall process.

The Contested Role of the Internet

There is ongoing academic debate regarding the extent to which the internet can affect

the radicalization process. It is generally agreed that terrorist and insurgent operations utilize

virtual opportunities to research targets, communicate, train, fundraise, and propagate ideological

agendas.[10] Thus, the discussion is not over whether the internet plays a role in radicalization, but

if it can act as the singular factor in the process. For instance, author and journalist Jason Burke

once argued that radicalization is a complex experience that requires close personal relationship

to progress.[11] This supports Sageman's 2004 claims that, while the internet may appeal to the

isolated, aggrieved individual by providing a virtual community, "he still needs to undergo an

intense period of face-to-face interaction to check for his commitment and devotion to the cause

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[7] Donatella Della Porta and Mario Diani, "Individuals, Networks, and Participation," in *Social Movements an Introduction*, 2nd ed. (New Jersey: Blackwell Publishing, 2006), 119, https://ares.library.jhu.edu/ares/ares.dll?Action=10&Type=10&Value=636383.

[8] Thomas J. Holt, Joshua D. Freilich, and Steven M. Chermak, "Internet-Based Radicalization as Enculturation to Violent Deviant Subcultures," *Deviant Behavior* 38, no. 8 (September 27, 2016): 857, https://doi.org/10.1080/01639625.2016.1197704.

[9] *Ibid.*

[10] Barbara Mantel, "Terrorism and the Internet: Should Web Sites That Promote Terrorism Be Shut Down?," *CQ Global Researcher* 3, no. 11 (November 2009): 130.

[11] Jason Burke, "Al-Shabab's Tweets Won't Boost Its Cause | Jason Burke," *The Guardian*, December 16, 2011, sec. Opinion, https://www.theguardian.com/commentisfree/2011/dec/16/al-shabab-tweets-terrorism-twitter.

and generate bonds that will prevent him from betraying the cause."[12] However, Sageman's theory predates the rise of social media and fails to account for the constant connectivity afforded by technological advances. Instead, a stronger argument notes the creation of false dichotomy in current terrorism studies, one that pits online and offline activities against each other rather than assessing them as parts of a whole.[13]

This study does not attempt to determine if online or offline activities are more influential in the radicalization process. Rather, it understands that the internet "has become a primary operational environment, in which political ideologies are realized, attacks planned, and social movements made" and seeks to understand *how* it does so.[14] Most literature suggests that technological advances have created new virtual breeding grounds which codify collective identities and enhance grievance narratives.[15] This occurs because interactive interfaces allow individuals to engage with material in a manner that mimics direct socialization. Maura Conway explains, "today's Internet does not simply allow for the dissemination and consumption of 'extremist material' in a one-way broadcast from producer to consumer, but also high levels of online social interaction around this material."[16] For instance, chat rooms, social media, and interactive forums may connect extremists with potential recruits; video games provide social incentives and rewards; films or recordings attract larger numbers of viewers; and static websites

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[12] Marc Sageman, *Understanding Terror Networks* (Philadelphia: University of Pennsylvania Press, 2004): 163.

[13] Paul Gill et al., "Terrorist Use of the Internet by the Numbers," *Criminology & Public Policy* 16, no. 1 (February 2017): 100, https://doi.org/10.1111/1745-9133.12249.

[14] Charlie Winter et al., "Online Extremism: Research Trends in Internet Activism, Radicalization, and Counter-Strategies," *International Journal of Conflict & Violence* 14, no. 2 (July 2020): 1, https://doi.org/10.4119/ijcv-3809.

[15] Thomas Holt et al., "Political Radicalization on the Internet: Extremist Content, Government Control, and the Power of Victim and Jihad Videos," *Dynamics of Asymmetric Conflict* 8, no. 2 (May 4, 2015): 107–20, https://doi.org/10.1080/17467586.2015.1065101.

[16] Maura Conway, "Determining the Role of the Internet in Violent Extremism and Terrorism: Six Suggestions for Progressing Research," *Studies in Conflict & Terrorism* 40, no. 1 (January 2017): 80, https://doi.org/10.1080/1057610X.2016.1157408.

propagate ideology among the geographically dispersed.[17] Each of these platforms provides a

potentially addictive setting in which individuals can find promises of purpose, adventure, and

community.[18]

      Virtual socialization expands extremist engagement beyond the scope afforded by face-

to-face interaction. This is aided by technological advances which allow the near omnipresence

of the web. This ubiquity provides a larger potential audience for extremist agendas – one not

constrained by traditional geographic considerations or societal barriers.[19] Further, although in

2004 Sageman disputed the internet's ability to fully replace in-person socialization in the

radicalization process, he did recognize its capacity to engage the otherwise inaccessible. He

notes that "it appeals to isolated individuals by easing their loneliness through connections to

people sharing some commonality."[20] For those who are isolated from outside influences, hate-

filled virtual communities impact them psychologically by facilitating the formations of new

identities, the legitimization of radical ideologies, and negotiation of moral boundaries.[21]

Additionally, virtual interaction eases initiation into deviant cognition by allowing seemingly

anonymous experimentation with extremist ideology. It does so by providing a sense of non-

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[17] Thomas Frissen, "Internet, the Great Radicalizer? Exploring Relationships between Seeking for Online Extremist Materials and Cognitive Radicalization in Young Adults," *Computers in Human Behavior* 114 (January 2021): 106549, https://doi.org/10.1016/j.chb.2020.106549; Thomas Holt et al., "Political Radicalization on the Internet: Extremist Content, Government Control, and the Power of Victim and Jihad Videos," *Dynamics of Asymmetric Conflict* 8, no. 2 (May 4, 2015): 107–20, https://doi.org/10.1080/17467586.2015.1065101.

[18] Robin Thompson, "Radicalization and the Use of Social Media," *Journal of Strategic Security* 4, no. 4 (2011): 171, http://dx.doi.org/10.5038/1944-0472.4.4.8.

[19] Thomas J. Holt, Joshua D. Freilich, and Steven M. Chermak, "Internet-Based Radicalization as Enculturation to Violent Deviant Subcultures," *Deviant Behavior* 38, no. 8 (September 27, 2016): 855–69, https://doi.org/10.1080/01639625.2016.1197704.

[20] Marc Sageman, *Understanding Terror Networks* (Philadelphia: University of Pennsylvania Press, 2004): 161.

[21] Lorraine Bowman-Grieve, "Exploring 'Stormfront': A Virtual Community of the Radical Right," *Studies in Conflict & Terrorism* 32, no. 11 (October 30, 2009): 998, https://doi.org/10.1080/10576100903259951.

attribution, offering an ostensibly innocuous setting for individuals to engage anonymously in taboo behavior.[22]

The normative effect of internet-based socialization is aided by the increasing prevalence of virtual echo chambers – or environments that present information from singular perspectives which reinforce opinions and create divergent realities.[23] An essay penned by Jia Tolentino examined the effects of the internet on identity and found five key factors which effectively influenced user perception. According to Tolentino, "the final, and possibly most psychologically destructive distortion of the social internet is its distortion of scale. This is not an accident but an essential design feature: social media was constructed around the idea that a thing is important insofar as it is important to you."[24]

Technology feeds the ontological dilemma with useful algorithms designed to provide consumers with relevant information. The New York Times produced a podcast titled "Rabbit Hole" which narratively explored the web-based radicalization of a single individual. The podcast interviewed Guillaume Chaslot, a former YouTube employee, who designed algorithms to enhance the platform's usership. Chaslot explained that YouTube shifted away from tracking metrics by clicks per video and instead measures time spent on the platform.[25] To increase viewership, YouTube created a recommendation system that encourages consumers to watch similar types of videos.[26] The podcast argued that the resulting "rabbit hole" creates differing

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[22] Alexander Meleagrou-Hitchens, Audrey Alexander, and Nick Kaderbhai, "The Impact of Digital Communications Technology on Radicalization and Recruitment," *International Affairs* 93, no. 5 (September 1, 2017): 1238, https://doi.org/10.1093/ia/iix103.

[23] "Digital Media Literacy: What Is an Echo Chamber?," GCFGlobal.org, accessed February 11, 2021, https://edu.gcfglobal.org/en/digital-media-literacy/what-is-an-echo-chamber/1/.

[24] Jia Tolentino, "The I in Internet," in *Trick Mirror* (New York: Random House, 2019), 28.

[25] Kevin Roose, "One: Wonderland," New York Times: Rabbit Hole, accessed February 11, 2021, https://www.nytimes.com/2020/04/16/podcasts/rabbit-hole-internet-youtube-virus.html.

[26] *Ibid.*

realities for various audiences. Similarly, Google results can alter perceptions and intensify echo chambers. For instance, "results masquerade as relatively objective truths: why else would a link come up on the first page of the world's most trusted search engine?"[27] In these cases,
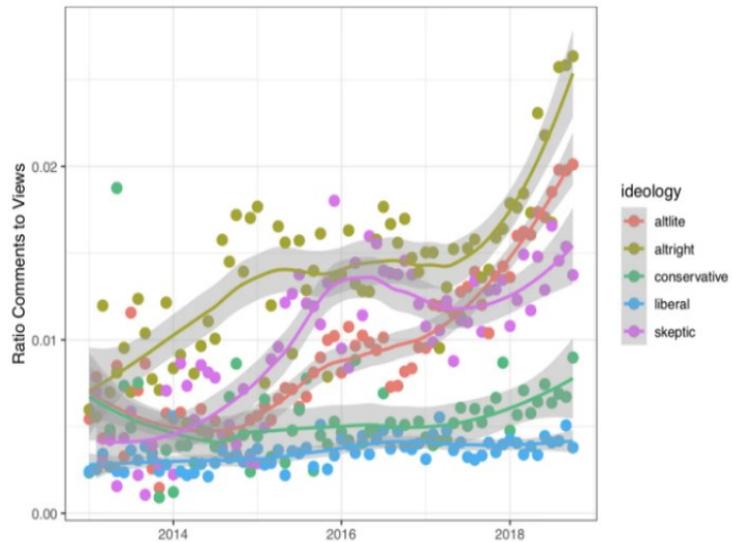

Figure 2: Intensity of Engagement: Ratio of Comments to Views[29]

top or recurring search results may give digital media false credibility, especially among populations that have difficulty critically evaluating the credibility of claims made by sites that appear in trusted search engines.[28]

However, analyses of developing echo chambers may be overly simplified. A quantitative study conducted by a team of Penn State researchers suggests that recommendation algorithms may be far less culpable than media reports suggest.[30] Instead, the researchers contend, radicalization on the platform may result from simple supply and demand.[31] The pure mass of alternative content, created by low barrier of entry and high potential reward, has

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[27] Rishi Chebrolu, "The Racial Lens of Dylann Roof: Racial Anxiety and White Nationalist Rhetoric on New Media," *Review of Communication* 20, no. 1 (January 2020): 57, https://doi.org/10.1080/15358593.2019.1708441.
[28] *Ibid.*
[29] Paris Martineau, "Maybe It's Not YouTube's Algorithm That Radicalizes People," *Wired*, October 23, 2019, https://www.wired.com/story/not-youtubes-algorithm-radicalizes-people/.
[30] *Ibid.*
[31] Kevin Munger and Joseph Phillips, "Right-Wing YouTube: A Supply and Demand Perspective," *The International Journal of Press/Politics*, October 21, 2020, 1940161220964767, https://doi.org/10.1177/1940161220964767.

inundated the platform.[32] The study found that among political radicals, interaction between account holders creates a highly accessible virtual forum, as seen in Figure 2.[33] "These interactions, even if contentious, reinforce parasocial relationships between audience and creator and a sense of community between audience members."[34] The study emphasized that it is the internet's unique ability to imitate real socialization, not its recommendation systems, that persuades and radicalizes individuals experiencing cognitive openings.[35]

Existing Comparative Studies

There are studies that comparatively assess internet usage among radical actor types. Much of this research seeks to quantitatively analyze engagement by group or platform. A study conducted by J.M. Berger at George Washington University examined Twitter trends among three groups: Nazis, White Nationalists, and ISIS. Berger found radical right groups consistently presented higher numbers of followers and tweets than the accounts held by ISIS affiliates.[36] A similar study analyzing metrics of the online White Nationalist forum, Stormfront, and the *jihadi* website, *al-Shumukh al-Islam*, also found higher numbers of posts made annually by the radical right community.[37] The extreme right has a long history of communicating ideology virtually, strategizing ways to optimize consumption and lower the threshold of participation.[38] To do so,

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[32] Paris Martineau, "Maybe It's Not YouTube's Algorithm That Radicalizes People," *Wired*, October 23, 2019, https://www.wired.com/story/not-youtubes-algorithm-radicalizes-people/.

[33] Kevin Munger and Joseph Phillips, "Right-Wing YouTube: A Supply and Demand Perspective," *The International Journal of Press/Politics*, October 21, 2020, 1940161220964767, https://doi.org/10.1177/1940161220964767.

[34] *Ibid.*

[35] Paris Martineau, "Maybe It's Not YouTube's Algorithm That Radicalizes People," *Wired*, October 23, 2019, https://www.wired.com/story/not-youtubes-algorithm-radicalizes-people/.

[36] J. M. Berger, "Nazis vs. ISIS on Twitter: A Comparative Study of White Nationalist and ISIS Online Social Media Networks," Report (Center for Cyber & Homeland Security (GWU), September 1, 2016), https://apo.org.au/node/67247.

[37] Maura Conway, "Determining the Role of the Internet in Violent Extremism and Terrorism: Six Suggestions for Progressing Research," *Studies in Conflict & Terrorism* 40, no. 1 (January 2017): 77–98, https://doi.org/10.1080/1057610X.2016.1157408.

[38] *Ibid.*

the radical right utilizes social media tools and applications designed to increase online traffic and follower counts.[39] Additionally, many white power websites manipulate algorithms to ensure their websites are among the first results produced by various web searches.[40] The appearance of such websites at the top of search engine results provides a misleading sense of legitimacy and increased number of visitors to the sites.[41] Tactics designed to expand outreach satisfy radical right social media strategies which rely primarily on ideological diffusion and replacement of standard worldviews.[42]

Virtual Violent Islamic Extremist (VIE) forums also hope to appeal to large global audiences. Many websites and social media accounts publish information in English rather than Arabic to expand potential viewership.[43] Yet, VIE sites follow a different type of engagement strategy than that of the radical right. Instead of broad messaging campaigns, VIE sites tend to cultivate intimate, hierarchical online communities designed to radicalize potential recruits in a manner closer to traditional socialization.[44] For instance, among ISIS accounts, "members of the recruiter social network flock around prospective recruits to provide a sense of supportive community; recruiters then isolate users from their pre-existing communities. This activity culminates in an effort to prompt recruits to take material steps in support of ISIS, such as

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[39] J. M. Berger, "Nazis vs. ISIS on Twitter: A Comparative Study of White Nationalist and ISIS Online Social Media Networks," Report (Center for Cyber & Homeland Security (GWU), September 1, 2016), https://apo.org.au/node/67247.

[40] Rishi Chebrolu, "The Racial Lens of Dylann Roof: Racial Anxiety and White Nationalist Rhetoric on New Media," *Review of Communication* 20, no. 1 (January 2020): 56, https://doi.org/10.1080/15358593.2019.1708441.

[41] *Ibid.*

[42] J. M. Berger, "Nazis vs. ISIS on Twitter: A Comparative Study of White Nationalist and ISIS Online Social Media Networks," Report (Center for Cyber & Homeland Security (GWU), September 1, 2016), https://apo.org.au/node/67247.

[43] Alexander Meleagrou-Hitchens, Audrey Alexander, and Nick Kaderbhai, "The Impact of Digital Communications Technology on Radicalization and Recruitment," *International Affairs* 93, no. 5 (September 1, 2017): 1237, https://doi.org/10.1093/ia/iix103.

[44] *Ibid.*

becoming a foreign fighter or carrying out a terrorist attack."[45] Some experts contend that these online communities may be attempts by VIE organizations to manipulate disenfranchised individuals in Western countries into committing smaller, but less logistically challenging, terror attacks.[46] In essence, these organizations seek to crowdsource terror.

One way that extremist organizations ensure long-term exposure to radical online content is by "gamifying" their website experiences. This is done by applying game-like incentives in non-game settings.[47] For example, al Qaeda (AQ) operates two web forums, *al Shumukh* and *al-Fida*, both of which utilize a point-based system to encourage increased user engagement.[48] Point accrual allows individuals within the community to gain reputations, power, and legitimacy among other users on the sites. Stormfront introduced a similar scheme in which users gain status by posting to the RRE website.[49] One author noted that, "Awlaki has used gamification to do what al Qaeda had been unable to do before him, at least in any systematic way: get Americans to compete with one another to put down their keyboards and pick up their weapons."[50]

Both VIE and radical right organizations are encountering online policing more frequently as sites like Twitter suspend the accounts of known radicals.[51] Suspensions are often

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[45] J. M. Berger, "Nazis vs. ISIS on Twitter: A Comparative Study of White Nationalist and ISIS Online Social Media Networks," Report (Center for Cyber & Homeland Security (GWU), September 1, 2016): 20, https://apo.org.au/node/67247.

[46] Robin Thompson, "Radicalization and the Use of Social Media," *Journal of Strategic Security* 4, no. 4 (2011): 167–90, http://dx.doi.org/10.5038/1944-0472.4.4.8; Jason Burke, "The Age of Selfie Jihad: How Evolving Media Technology Is Changing Terrorism," *Combating Terrorism Center Sentinel* 9, no. 11 (November 30, 2016), https://ctc.usma.edu/the-age-of-selfie-jihad-how-evolving-media-technology-is-changing-terrorism/.

[47] Jarret Brachman and Alix Levine, "The World of Holy Warcraft," *Foreign Policy* (blog), April 13, 2011, https://foreignpolicy-com.proxy1.library.jhu.edu/2011/04/13/the-world-of-holy-warcraft/.

[48] Thérèse Postel, "The Young and the Normless: Al Qaeda's Ideological Recruitment of Western Extremists," *Connections* 12, no. 4 (Fall 2013): 110.

[49] Jarret Brachman and Alix Levine, "The World of Holy Warcraft," *Foreign Policy* (blog), April 13, 2011, https://foreignpolicy-com.proxy1.library.jhu.edu/2011/04/13/the-world-of-holy-warcraft/.

[50] *Ibid.*

[51] J M Berger and Heather Perez, "The Islamic State's Diminishing Returns on Twitter: How Suspensions Are Limiting Social Networks of English-Speaking ISIS Supporters" (George Washington University, February 2016), https://extremism.gwu.edu/sites/g/files/zaxdzs2191/f/downloads/JMB%20Diminishing%20Returns.pdf.

not permanent, however, as radicals have developed countermeasures to ensure continued

presence on various platforms.[52] Nonetheless, Berger and fellow researcher Heather Perez found

that the long-term impacts caused by such deferments are interfering with extremist output.[53]

Thus, many radicals are looking for new platforms upon which to build virtual followings. While

platform and group-based studies are vital to understanding the impacts of online realities, there

is too little information available exploring how individuals are affected by the various virtual

campaigns. Therefore, this study addresses qualitatively how individuals engage with extremist

material leading up to violent events to determine whether there is a difference in how different

actors are radicalized and mobilized.

Part II: Research Design
Hypotheses

        The Literature Review examined existing comparative, quantitative research which found

differences in the strategies utilized by radical groups online. VIE groups publish static materials

(material designed for one-way consumption) aimed to inspire extremists, but also implement

formalized recruitment schemes and escalatory radicalization. Previous research indicates that

these organizations often aim to cultivate online breeding grounds and virtual communities. [54]

Conversely, RRE factions prefer to inundate web users with alternative information sources.[55]

Past studies suggest these groups are more interested in propagating large amounts of radical

material to replace conventional viewpoints than in fostering online communities. However, little

empirical evidence exists determining the efficacy of these techniques from the standpoint of the

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[52] J M Berger and Heather Perez, "The Islamic State's Diminishing Returns on Twitter: How Suspensions Are Limiting Social Networks of English-Speaking ISIS Supporters" (George Washington University, February 2016), https://extremism.gwu.edu/sites/g/files/zaxdzs2191/f/downloads/JMB%20Diminishing%20Returns.pdf.
[53] *Ibid.*
[54] *Ibid.*
[55] *Ibid.*

extremist. Thus, a crucial research question emerges: do different types of extremist actors demonstrate distinct radicalization behaviors online in conjunction with the strategies implemented by ideologically aligned organizations? Or are internet-based aspects of radicalization similar across radical typology despite the distinctive mobilization strategies utilized by different extremist groups?

This exploratory study sought to qualitatively understand the phenomenon of how the internet influences the radicalization process of different types of violent extremist actors. It did not intend to establish causality of online radicalization nor did it attempt to understand why the internet influences different types of actors in distinct ways, as there is no evidence that such discrepancy exists at the actor level. Instead, it aimed to discover the actor experience during the online radicalization process by assessing if internet behaviors are similar by actor type. Due to the distinct online strategies utilized by different types of extremist groups, this researcher hypothesized that various types of subjects would display distinct behavioral patterns. This was reflected by the following hypothesis and sub-hypotheses:

> H1: Different types of violent extremists demonstrate unique online behaviors throughout individual radicalization.
> H1(a): Radical Right Extremists (RREs) are primarily one-way consumers of extremist content and contribute little original thought.
> H1(b): Violent Islamic Extremists (VIEs) participate in interactive online communications and become active members of virtual communities.

The hypotheses expected results to show at least partial online radicalization in the selected case studies. However, results were anticipated to reveal differences in actor engagement with online material (H1). Specifically, the study considered RREs to be less likely to partake in two-way virtual interactions, either for the purposes of ideological socialization or logistical planning (H1a). Instead, H1a posited that RREs were more apt to absorb mass amounts

of radical propaganda while only publicly publishing pre-attack manifestos online since RRE organizations demonstrate little activity in building web-based communities. Conversely, Literature Review findings suggest formal VIE organizations attempt to cultivate virtual breeding groups that mimic traditional radicalization. As such, H1b expected that VIEs participate in virtual idea exchanges, mentorship programs, and operation planning – often with known terrorist organizations. Unexpected results included cases with little or no web-based radicalization, instances in which RREs maintained vocal online presences, and examples in which VIEs absorbed ideological material while abstaining from virtual socialization.

Methodology

To test these hypotheses, this research compared the internet-based radicalization of VIEs and RREs in the United States through a cross-case analysis.[56] The project analyzed three instances of each case type, looking for common trends within the radicalization processes of both groups. Sample cases were identified in the START Global Terrorism Database (GTD) and selected based upon available data.[57] Further, sample selection considered *most similar* cases in an effort to control external variables.[58] Thus, the research examined individual and partner attacks since they are less likely to have experienced formal, in-person socialization and more likely to have radicalized – at least in part – online. Additionally, to ensure sample similarities, only instances in which fatalities occurred were analyzed. Finally, each case considered for this study occurred between 2010 and 2019. The small timeframe accounts for the rise of most prominent social media platforms and most relevant technological advances. Data occurring after 2019 was excluded from the study due to potential behavioral changes caused by the pandemic.

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[56] John W. Creswell, *Qualitative Inquiry & Research Design: Choosing among Five Approaches*, 2nd ed (Thousand Oaks: Sage Publications, 2007): 75.

[57] "GTD | Global Terrorism Database," accessed February 15, 2021, https://www.start.umd.edu/gtd/.

[58] Jason Seawright and John Gerring, "Case Selection Techniques in Case Study Research: A Menu of Qualitative and Quantitative Options," *Political Research Quarterly* 61, no. 2 (June 1, 2008): 294–308.

This study examined the nexus of two variables. One variable considered the type of actor. The research defined VIE actors will be any militant inspired by extreme Islamic ideology and *jihad*. The radical right is more ambiguous as it includes multiple distinct ideologies. For this study RRE actors were constrained to those showing white supremacist, white nationalist, or neo-Nazi motivations. The second variable in this study examined various web-based behaviors. To operationalize this variable, specific trends were pulled from the literature review and the case narratives then categorized as either one-way absorption of extremist material or two-way socialization or radical content. Specifically, participation with a virtual community (e.g., interactive forums, gaming, social media communities), mentorship with a formal organization, solicitation of planning assistance, socialization of ideas through public or posted messages, and socialization of ideas through private messages were all deemed to be interactive behaviors. Meanwhile, absorption of one-way content (e.g., videos, lectures, written materials, static websites), pledges to unaffiliated groups, individual target and planning behaviors were coded as non-social internet utilizations. Variables were tracked in individual tables at the end of each case study in Part III of the study.

The following case studies are written in a narrative format with a primary focus on the violent actor's internet-based radicalization. Background information and evidence of in-person socialization was included in cases as necessary. All data was mined through a mixture of first and secondary sources, including: media reports, court documents, press releases, interview transcripts, congressional hearings, scholarly articles, manifestos, and social media records.

Part III: Data

Violent Islamic Extremists

VIE Case Study I: Omar Mateen

On June 12th, 2016, Omar Mateen carried out an attack at the Pulse nightclub in Orlando,

Florida, killing 49 and injuring 53 more.[59] Mateen credited ISIS with the attack, pledging his

allegiance to Abu Bakr al-Baghdadi amid the violence.[60] However, investigators uncovered no

evidence of a formal connection between the perpetrator and the organization; instead, they

found an individual who mostly self-radicalized.[61] Omar Mateen was known to authorities prior

to the Orlando attack. He was first investigated after claiming affiliation to a known terrorist

organization and again in connection to a known foreign fighter.[62] Despite this, Omar Mateen's

quiet radicalization continued undetected by authorities.

Reports note that Omar Mateen had active profiles on Facebook and MySpace and

operated several email accounts.[63] Additionally, some speculation indicates that he may have

created accounts on gay dating apps, although no corroborating evidence was ever released by

investigative agencies.[64] In any case, Mateen maintained an active social media presence, having

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[59] Joe Whittaker, "Online Radicalization, The West, and The 'Web 2.0': A Case Study Analysis," in *Countering Terrorist Activities in Cyberspace*, ed. Z. Minchev and M. Bogdanoski (Amsterdam, NETHERLANDS, THE: IOS Press, Incorporated, 2018), http://ebookcentral.proquest.com/lib/jhu/detail.action?docID=5435937.

[60] Andrea Aprea, "Investigative Update Regarding Pulse Nightclub Shooting — FBI," Press Release, June 20, 2016, https://www.fbi.gov/contact-us/field-offices/tampa/news/press-releases/investigative-update-regarding-pulse-nightclub-shooting.

[61] Jeffrey Kluger, "This Is What Drove the Orlando Killer," Time, June 14, 2016, https://time.com/4368275/mateen-orlando-why-he-killed/.

[62] Mark Mazzetti, Eric Lichtblau, and Alan Blinder, "Omar Mateen, Twice Scrutinized by F.B.I., Shows Threat of Lone Terrorists," *The New York Times*, June 14, 2016, sec. U.S., https://www.nytimes.com/2016/06/14/us/politics/orlando-shooting-omar-mateen.html.

[63] "Omar Mateen," Counter Extremism Project, June 13, 2016, https://www.counterextremism.com/extremists/omar-mateen.

[64] Joe Whittaker, "Online Radicalization, The West, and The 'Web 2.0': A Case Study Analysis," in *Countering Terrorist Activities in Cyberspace*, ed. Z. Minchev and M. Bogdanoski (Amsterdam, NETHERLANDS, THE: IOS Press, Incorporated, 2018), http://ebookcentral.proquest.com/lib/jhu/detail.action?docID=5435937.

met his first wife on MySpace in 2008.[65] He was also a frequent Facebook user, utilizing the

platform as both a social tool and a search engine.[66] A letter from Senator Ron Johnson to

Facebook CEO Mark Zuckerberg indicates that Mateen may have operated multiple Facebook

accounts in his search for ideological materials.[67] It appears his searches, both through social

media and more conventional search engines, primarily focused on ISIS propaganda, the Boston

Bombings, and the 2015 San Bernardino attack.[68] However, his internet musings were

discordant, conflicting, and largely incoherent. One researcher noted that,

> "As Mateen 'read up' the contents of the internet's vast data reservoir, he did not
> decode its information through a grand narrative of Wahhabism, Khomeinism, or
> some mainline practice of American Islam (reports indicate he was somewhat
> dislocated from his own religious community) but rather through his own
> affective tendencies toward fantasies of violence and power."[69]

He did not engage in virtual communities nor seek increasingly religious teachings.[70]

Rather, he absorbed extremist messaging and narratives found in ISIS propaganda.[71] As Seamus

Hughes, Deputy Director of George Washington University's Program on Extremism noted,

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[65] Mark Mazzetti, Eric Lichtblau, and Alan Blinder, "Omar Mateen, Twice Scrutinized by F.B.I., Shows Threat of Lone Terrorists," *The New York Times*, June 14, 2016, sec. U.S., https://www.nytimes.com/2016/06/14/us/politics/orlando-shooting-omar-mateen.html.

[66] Alan Blinder, Frances Robles, and Richard Pérez-Peña, "Facebook Asked to Provide Details of Gunman's Postings," *The New York Times*, June 16, 2016, sec. U.S., https://www.nytimes.com/interactive/2016/06/16/us/document-JohnsonFacebookletter-2.html.

[67] *Ibid.*

[68] Kevin Sullivan et al., "Orlando Shooter Posted Messages on Facebook Pledging Allegiance to the Leader of ISIS and Vowing More Attacks," *Washington Post*, June 15, 2016, sec. National Security, https://www.washingtonpost.com/world/national-security/investigation-into-orlando-shooting-continues-no-impending-charges-expected/2016/06/15/c3eccf5e-3333-11e6-8758-d58e76e11b12_story.html.

[69] Brian Hughes, "A Lone Wolf in the Hypertext: Radicalization Online," *21st Century Global Dynamics* 10, no. 52 (August 7, 2017), https://www.21global.ucsb.edu/global-e/august-2017/lone-wolf-hypertext-radicalization-online.

[70] *Ibid.*

[71] Dan Frosch and Nicole Hong, "Transcripts Show ISIS Influence on Orlando Gunman," *The Wall Street Journal*, September 27, 2016, sec. U.S., https://www.wsj.com/articles/transcripts-show-isis-influence-on-orlando-gunman-1475023090.

Mateen's stated grievances regarding U.S. airstrikes in the Middle East and the killing of Abu Wahib reflected an avid consumption of ISIS messaging.[72]

Despite Mateen's intake of extremist materials, he partook in very little virtual socialization throughout his radicalization process. Authorities found that he had spent years searching for and viewing ideological propaganda, primarily in the form of radical videos, such as when he conducted a June 4th, 2016 search for speeches by ISIS leader Abu Bakr al-Baghdadi.[73] Yet, Mateen never engaged *with* the online ISIS community. He did not have a mentor or socialize with any like-minded users.[74] It appears that the majority of his online extremist rhetoric was posted throughout the attack on Pulse nightclub, during which time he published several messages in support of the Islamic State.[75] It does not appear that Mateen utilized any online sources to plan the attack, aside from Google searches for nightclubs in Orlando on the night of the attack.[76] In total, Omar Mateen did not have a virtual community, was not engaged in an internet echo chamber, and showed no signs of soliciting online planning

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[72] Dan Frosch and Nicole Hong, "Transcripts Show ISIS Influence on Orlando Gunman," *The Wall Street Journal*, September 27, 2016, sec. U.S., https://www.wsj.com/articles/transcripts-show-isis-influence-on-orlando-gunman-1475023090.

[73] Kevin Sullivan et al., "Orlando Shooter Posted Messages on Facebook Pledging Allegiance to the Leader of ISIS and Vowing More Attacks," *Washington Post*, June 15, 2016, sec. National Security, https://www.washingtonpost.com/world/national-security/investigation-into-orlando-shooting-continues-no-impending-charges-expected/2016/06/15/c3eccf5e-3333-11e6-8758-d58e76e11b12_story.html; Kevin Sullivan et al., "Orlando Shooter Posted Messages on Facebook Pledging Allegiance to the Leader of ISIS and Vowing More Attacks," *Washington Post*, June 15, 2016, sec. National Security, https://www.washingtonpost.com/world/national-security/investigation-into-orlando-shooting-continues-no-impending-charges-expected/2016/06/15/c3eccf5e-3333-11e6-8758-d58e76e11b12_story.html.

[74] Joe Whittaker, "Online Radicalization, The West, and The 'Web 2.0': A Case Study Analysis," in *Countering Terrorist Activities in Cyberspace*, ed. Z. Minchev and M. Bogdanoski (Amsterdam, NETHERLANDS, THE: IOS Press, Incorporated, 2018), http://ebookcentral.proquest.com/lib/jhu/detail.action?docID=5435937.

[75] Alan Blinder, Frances Robles, and Richard Pérez-Peña, "Facebook Asked to Provide Details of Gunman's Postings," *The New York Times*, June 16, 2016, sec. U.S., https://www.nytimes.com/interactive/2016/06/16/us/document-JohnsonFacebookletter-2.html.

[76] Gal Tziperman Lotan, "Pulse Shooter Visited Disney, Another Club in Hours before Attack, Widow's Defense Says," orlandosentinel.com, March 5, 2018, https://www.orlandosentinel.com/news/pulse-orlando-nightclub-shooting/os-omar-mateen-cell-records-night-of-pulse-shooting-20180305-story.html.

assistance. His radicalization included almost no web-based socialization aside from consumption of web-based extremist materials.

Virtual Community	Mentorship w/ formal Org	Planning Assistance	Socialization of ideas (public or posted)	Socialization of ideas (private messaging)	Absorption of one-way content	Published manifesto	Pledge to unaffiliated group	Searching or planning
					X		X	X

Table 1: Variables Displayed by Omar Mateen

VIE Case Study II: Syad Rizwan Farook & Tashfeen Malik

Syad Rizwan Farook and his wife, Tashfeen Malik, attacked a Christmas party at Farook's place of work on December 2nd, 2015 in San Bernardino, California.[77] The couple reportedly attempted to continue the rampage in the surrounding area with Improvised Explosive Devices (IEDs) that ultimately failed to detonate.[78] The preparators credited the attack, which killed 14 and injured 22, to the Islamic State, though no formal connection was ever established.[79] Examination of the case suggests that the radicalization of Farook and Malik started separately and occurred both in-person and online.

Farook's radicalization began with an accomplice, prior to meeting Malik. Farook, who was born in the United States to Pakistani parents, introduced his younger neighbor, Enrique Marquez, to Islam in the mid-2000s.[80] It is through related case files from an investigation into Marquez, not Farook, that much of their radicalization was revealed to authorities. The FBI found that the two men experimented with increasingly radical forms of Islam after Marquez's

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[77] John Roth, "MEMORANDUM: December 3, 2015 - San Bernardino Incident" (Office of Inspector General Department of Homeland Security, June 1, 2016), https://www.hsdl.org/?search=&searchfield=&all=%22san+bernardino%22+shooting&collection=documents&submitted=Search.

[78] Joel T. Anderson, United States of America v. Enrique Marquez, Jr., No. 5:15MJ498 (United States District Court for the Central District of California Date 2015).

[79] James B. Comey, "Federal Bureau of Investigation Oversight | C-SPAN.Org" (2015), https://www.c-span.org/video/?401606-1/fbi-director-james-comey-oversight-hearing-testimony.

[80] William Finnegan, "Last Days," *New Yorker* 92, no. 2 (February 22, 2016): 50–59.

initial conversion to Islam.[81] By the late 2000s, Marquez was accessing extremist materials

online, presumably with the help of Farook.[82] This material included Anwar al-Awlaki's lecture,

"The Hereafter," and the teachings of Imran Hosein, a scholar who espoused support of Sharia-

based commune.[83] According to FBI documents,

> "Marquez spent most of his time at Farook's residence, where he read, listened to
> lectures, and watched videos involving radical Islam content, including Inspire
> Magazine, the official publication of AQAP, 'Defense of Muslim Lands,' by
> Shaikh Abdullah Azzam, and videos produced by Al-Shabbab, Al-Qa'ida's
> affiliate in Somalia."[84]

Around 2012, the two men planned and prepared to carry out a two-pronged attack in

which they intended to target Riverside Community College and State Route 91.[85] The duo

utilized information found in AQ's *Inspire* Magazine to prepare for the attack.[86] However,

Marquez disengaged from the plan and the incident was never perpetrated.[87]

Marquez was integral in Farook's radicalization as an audience upon which he could

socialize radical narratives; however, Farook's radicalization expanded beyond his friendship

with the younger man. Farook's internet history suggests he was interested in finding a Muslim

wife of Middle Eastern or South Asian descent.[88] Reportedly, he joined Dubaimatrimonial.com

where he created a profile describing himself as a modern man with a blend of Eastern and

Western values.[89] However, Farook's dating profiles suggest the reality of his increasingly

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[81] William Finnegan, "Last Days," *New Yorker* 92, no. 2 (February 22, 2016): 52.

[82] Joel T. Anderson, United States of America v. Enrique Marquez, Jr., No. 5:15MJ498 (United States District Court for the Central District of California Date 2015).

[83] *Ibid: 7.*

[84] Joel T. Anderson, United States of America v. Enrique Marquez, Jr., No. 5:15MJ498 (United States District Court for the Central District of California Date 2015): 8.

[85] *Ibid: 11.*

[86] *Ibid: 25.*

[87] William Finnegan, "Last Days," *New Yorker* 92, no. 2 (February 22, 2016): 53.

[88] *Ibid, 55.*

[89] *Ibid.*

radical faith. Specifically, he later joined a second site, BestMuslim.com, where he described himself as an ardent student of the Quran looking to find a devout wife.[90] There he met and exchanged radical ideas about *jihad* and martyrdom with Tashfeen Malik.[91]

Little is known about Tashfeen Malik aside from a few sporadic communications she made on social media. Malik was known to strictly follow the conservative guidelines of Wahhabism despite having been raised in a moderate Sufi family in Pakistan.[92] As such, early acquaintances remembered her as a gregarious with modern values.[93] However, as she adopted more fundamentalist views of Islam, she became more isolated, later communicating only with those inside of her immediate circle of trusted friends.[94] After leaving Pakistan, Malik moved to Saudi Arabia with her parents where she received a degree in pharmacology and subsequently studied the Quran at a conservative madrassa.[95] Her social media presence was limited, secure, and hard to access by anyone outside of a select group of online friends.[96] What was accessible indicated that she radicalized prior to immigrating to the United States.[97] She operated a Facebook account under the pseudonym *Larki Zaat*, which is Urdu for "girl with no name."[98] The account revealed at least two messages in which she told friends in Pakistan that she hoped to partake in *jihad*.[99] Additionally, one of her first posts upon coming to America was the ISIS

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[90] William Finnegan, "Last Days," *New Yorker* 92, no. 2 (February 22, 2016): 55.

[91] James B. Comey, "Federal Bureau of Investigation Oversight" (2015), https://www.c-span.org/video/?401606-1/fbi-director-james-comey-oversight-hearing-testimony.

[92] William Finnegan, "Last Days," *New Yorker* 92, no. 2 (February 22, 2016): 55.

[93] Pat St. Claire, Greg Botelho, and Ralph Ellis, "San Bernardino Shooter Tashfeen Malik: Who Was She?," CNN, December 6, 2015, https://www.cnn.com/2015/12/06/us/san-bernardino-shooter-tashfeen-malik/index.html.

[94] William Finnegan, "Last Days," *New Yorker* 92, no. 2 (February 22, 2016): 56.

[95] *Ibid, 55.*

[96] Evan Perez and Dana Ford, "San Bernardino Shooter's Social Media Posts on Jihad Were Obscured," CNN, December 14, 2015, https://www.cnn.com/2015/12/14/us/san-bernardino-shooting/index.html.

[97] James B. Comey, "Federal Bureau of Investigation Oversight" (2015), https://www.c-span.org/video/?401606-1/fbi-director-james-comey-oversight-hearing-testimony.

[98] William Finnegan, "Last Days," *New Yorker* 92, no. 2 (February 22, 2016): 56.

[99] *Ibid.*

slur, "woe to coconut Muslims," which was a reference to "Muslims who were, by her lights, insufficiently militant."[100]

There is less information available about the couple's internet usage and search history over the course of Farook and Malik's short marriage. Investigators found destroyed technology in the couple's home but were only able to garner a small amount of information from the recovered data.[101] However, it appears that the IEDs created by Farook and Malik were consistent with the pipe bomb designs published in AQAP's web-based periodical, *Inspire*.[102] Additionally, the San Bernardino Police Chief revealed that "[Malik] had essentially made the statement in an online account that she didn't think that a Muslim should have to participate in a non-Muslim holiday or event" prior to the attack.[103] An FBI affidavit reveals that at 8:43 am, just prior to the incident, Malik searched for information on ISIS and the terror organization's leadership.[104] After the attack, at 11:14am, Malik posted the following message to her Facebook page: "We pledge allegiance to Khalifa bu bkr al bhaghdadi al quraishi" – the leader of the ISIS they had searched earlier that day.[105]

Farook and Malik's radicalization processes were complex and multi-faceted. They both evidently participated in periods of traditional, face-to-face socialization. Farook's escalatory relationship with Marquez allowed him to blend virtual teachings with in-person planning.

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[100] William Finnegan, "Last Days," *New Yorker* 92, no. 2 (February 22, 2016): 56.

[101] Michael S. Schmidt and Salman Masood, "San Bernardino Couple Spoke of Attacks in 2013, F.B.I. Says," *The New York Times*, December 9, 2015, sec. U.S., https://www.nytimes.com/2015/12/10/us/san-bernardino-massacre-fbi.html.

[102] Joel T. Anderson, United States of America v. Enrique Marquez, Jr., No. 5:15MJ498 (United States District Court for the Central District of California Date 2015).

[103] Megan Christie et al., "Christmas Party May Have Triggered San Bernardino Terror Attack: Police," ABC News, November 30, 2016, https://abcnews.go.com/US/christmas-party-triggered-san-bernardino-terror-attack-police/story?id=43884973.

[104] Joel T. Anderson, United States of America v. Enrique Marquez, Jr., No. 5:15MJ498 (United States District Court for the Central District of California Date 2015).

[105] *Ibid.*

Although little is known of Malik's exposure to and adoption of radical ideals, it can be reasonably presumed that husband and wife socialized further ideations during their marriage. However, there are several online features of the couple's radicalization as well. Farook relied heavily on videos, lectures, and magazines published by formal terror organizations to create grievance narratives and plan attacks. Malik shared radical feelings with friends on hidden social media accounts. The couple utilized dating websites to share and socialize extremist ideas amongst themselves. Finally, the couple revealed motives and a last-minute accreditation to ISIS in online forums. Yet, despite the numerous influences the internet had on the couple's radicalization, there was no discernable connection between Farook, Malik, and a formally defined terror network. They were not part of a larger radical community, nor was there evidence they followed social media accounts related to such efforts. They were not mentored or offered guidance. Rather, they absorbed teachings virtually while socializing and planning offline.

Virtual Community	Mentorship w/ formal Org	Planning Assistance	Socialization of ideas (public or posted)	Socialization of ideas (private messaging)	Absorption of one-way content	Published manifesto	Pledge to unaffiliated group	Searching or planning
			X	X	X		X	

Table 2: Variables Displayed by Syad Rizwan Farook & Tashfeen Malik

VIE Case Study III: Tsarnaev Brothers

Brothers Tamerlan and Dzhokhar Tsarnaev were born in the Soviet Union and in present-day Kyrgyzstan, respectively, to an ethnically Chechen family.[106] In 2001, the brothers moved with their sisters and parents to Dagestan, a republic of Russia.[107] In 2002 Dzhokhar, or Jahar to

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[106] Janet Reitman, "Jahar: The Making of a Monster," *Rolling Stone* (blog), July 17, 2013, https://www.rollingstone.com/culture/culture-news/jahars-world-83856/.

[107] CNN Staff, "Timeline: A Look at Tamerlan Tsarnaev's Past," CNN, April 22, 2013, https://www.cnn.com/2013/04/21/us/tamerlan-tsarnaev-timeline/index.html.

his American friends, immigrated with his parents to the United States.[108] Tamerlan and the sisters joined their family in Boston the following year.[109] A decade later, on April 15th, 2013, the Tsarnaev brothers used IEDs to bomb the finish line of the Boston Marathon, killing three and injuring over 250.[110] The rampage continued during their attempted escape, during which time they killed an additional victim.[111] The decade between the brothers' arrival in the United States and their ideologically-motivated killing spree shows the development of grievances and socialization of radical ideologies, both of which occurred in-person and in cyberspace.

Tamerlan Tsarnaev was the oldest son, which thanks to Chechen cultural norms, granted him increased influence within his family.[112] His clout was heightened by his boxing prowess and his seemingly attainable dreams of becoming an Olympian.[113] Yet, his time in the United States resulted in disappointment. As one analyst of the case noted, "Tamerlan Tsarnaev struggled with school, never fit into a social group, witnessed his parents' divorce and return to Russia, and saw his Olympic dreams to box as an American crushed."[114] His increasing isolation and disillusionment resulted in erratic behaviors. Thus, under the guidance of his mother, Tamerlan turned to Islam to quell his growing discontent.[115] Eventually, Mikhail "Mischa" Allakhverdov, a friend of the Tsarnaevs, began delivering private sermons to Tamerlan on Islam,

[108] CNN Staff, "Timeline: A Look at Tamerlan Tsarnaev's Past," CNN, April 22, 2013, https://www.cnn.com/2013/04/21/us/tamerlan-tsarnaev-timeline/index.html.

[109] Ibid.

[110] "Boston Marathon Bomb Trial: The Victims," BBC News, March 4, 2015, sec. US & Canada, https://www.bbc.com/news/world-us-canada-22157894.

[111] "Boston Marathon Bomb Trial: The Victims," BBC News, March 4, 2015, sec. US & Canada, https://www.bbc.com/news/world-us-canada-22157894.

[112] Janet Reitman, "Jahar: The Making of a Monster," Rolling Stone (blog), July 17, 2013, https://www.rollingstone.com/culture/culture-news/jahars-world-83856/.

[113] Ibid.

[114] Thérèse Postel, "The Young and the Normless: Al Qaeda's Ideological Recruitment of Western Extremists," Connections 12, no. 4 (Fall 2013): 107.

[115] Alan Cullison, Paul Sonne, and Anton Troianovski, "Turn to Religion Split Suspects' Home," Wall Street Journal, April 22, 2013, sec. US, https://online.wsj.com/article/SB10001424127887324235304578437131250259170.html.

the Quran, and mystical aspects of the religion, in what may have been early ideological socialization.[116] Interestingly, while Tamerlan was becoming a progressively more devout Muslim, he was also consuming RRE literature including newsletters by *The American Free Press* and *The First Freedom* – publications with anti-Semitic and white supremacist leanings.[117] Paradoxically, he was simultaneously exploring conspiracy sites like Alex Jones's *InfoWars* and consuming Salafi online extremist propaganda.[118] By 2009, he was openly espousing radical ideologies to family and friends.[119]

Tamerlan's radicalization was flagrant enough to draw the attention of authorities in early 2011 when Russia requested the FBI's assistance in investigating his potential to become an Islamic foreign fighter.[120] However, FBI did not find that Tsarnaev presented a credible threat and closed the investigation.[121] In 2012, Tamerlan traveled to Russia with the intent to join a group of Chechen rebels.[122] This was likely influenced by a virtual connection he made with William Plotnikov – a similarly disillusioned Russian immigrant in Canada who returned to fight with militants in Dagestan.[123] However, while there, a cousin criticized Tamerlan's usefulness to

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[116] Janet Reitman, "Jahar: The Making of a Monster," *Rolling Stone* (blog), July 17, 2013, https://www.rollingstone.com/culture/culture-news/jahars-world-83856/.

[117] Thérèse Postel, "The Young and the Normless: Al Qaeda's Ideological Recruitment of Western Extremists," *Connections* 12, no. 4 (Fall 2013): 103.

[118] Janet Reitman, "Jahar: The Making of a Monster," *Rolling Stone* (blog), July 17, 2013, https://www.rollingstone.com/culture/culture-news/jahars-world-83856/.

[119] Alan Cullison, Paul Sonne, and Anton Troianovski, "Turn to Religion Split Suspects' Home," *Wall Street Journal*, April 22, 2013, sec. US, https://online.wsj.com/article/SB10001424127887324235304578437131250259170.html.

[120] FBI National Press Office, "2011 Request for Information on Tamerlan Tsarnaev from Foreign Government," FBI, April 19, 2013, https://www.fbi.gov/news/pressrel/press-releases/2011-request-for-information-on-tamerlan-tsarnaev-from-foreign-government.

[121] CNN Staff, "Timeline: A Look at Tamerlan Tsarnaev's Past," CNN, April 22, 2013, https://www.cnn.com/2013/04/21/us/tamerlan-tsarnaev-timeline/index.html.

[122] *Ibid.*

[123] Anne Speckhard, "The Boston Marathon Bombers: The Lethal Cocktail That Turned Troubled Youth to Terrorism," *Perspectives on Terrorism* 7, no. 3 (2013): 73.

the rebellion, which seemingly reoriented Tsarnaev's objective toward global *jihad* rather than regional insurgency.[124]

Not much is known about Tamerlan's six-month stint in Dagestan, but it is likely he further socialized his radical ideologies among the extremists with whom he interacted. Upon his return, Tamerlan posted multiple radical uploads to a YouTube page. These included videos featuring Imarat Kavkaz – a prominent militant Islamist group in the north Caucasus – , and AQ's "*The Emergence of Prophecy: The Black Flags from Khorasan*."[125] Additionally, he created an encrypted file on his computer with images of suffering Muslims and quotes promoting *jihad*.[126] His return to the United States prompted Tamerlan to engage Jahar in socialization of radical beliefs, encouraging his younger brother to commit more strongly to Islam and fostering his consumption of extremist materials.

Jahar Tsarnaev adjusted much more naturally to American life than his older brother. He had friends, did well in school, and was a successful athlete.[127] However, his transition from high school to college occurred during a period of intense family turmoil and he seemingly lost his sense of direction.[128] During this time, Tamerlan was Jahar's only local family and exerted significant influence over the younger Tsarnaev.[129] Jahar frequently received extremist material

[124] Janet Reitman, "Jahar: The Making of a Monster," *Rolling Stone* (blog), July 17, 2013, https://www.rollingstone.com/culture/culture-news/jahars-world-83856/.

[125] Michiko Kakutani, "Unraveling Boston Suspects' Online Lives, Link by Link," *The New York Times*, April 24, 2013, sec. U.S., https://www.nytimes.com/2013/04/24/us/unraveling-brothers-online-lives-link-by-link.html; CNN Staff, "Timeline: A Look at Tamerlan Tsarnaev's Past," CNN, April 22, 2013, https://www.cnn.com/2013/04/21/us/tamerlan-tsarnaev-timeline/index.html.

[126] Shira Schoenberg, "Dzhokhar Tsarnaev Trial: Jihadi Videos, Photos of Bloodied Muslim Children on Brother's Computer," Mass Live, April 28, 2015, https://www.masslive.com/news/boston/2015/04/dzhokhar_tsarnaev_trial_tamerl.html.

[127] Janet Reitman, "Jahar: The Making of a Monster," *Rolling Stone* (blog), July 17, 2013, https://www.rollingstone.com/culture/culture-news/jahars-world-83856/.

[128] *Ibid.*

[129] *Ibid.*

from his brother, including lectures by Anwar Al-Awlaki such as "*The Hereafter*".[130] Other

radical propaganda was also found on the younger Tsarnaev's computer, including: a digital

book entitled "*The Slicing Sword, Against the One Who Forms Allegiances With the Disbelievers*

and Takes Them as Supporters Instead of Allah, His Messenger and The Believers;" propaganda

from jihadist leader Abdullah Azzam entitled "*Defense of the Muslim Lands, the First Obligation*

After Imam;" and a piece titled "*Jihad and Effects of Intention Upon It*," among others.[131]

Finally, he had electronic content from Al Qaeda in the Arabian Peninsula's (AQAP's) *Inspire*

magazine, which the brothers used to prepare for the attack. One article found in Jahar's files

was "How to Make a Bomb in the Kitchen of Your Mom," from which the brothers gleaned their

knowledge of how to create the IEDs utilized in the attack.[132] Despite Jahar's consumption of

radical materials, few who knew him were aware that he harbored extremist ideations.

Unlike Tamerlan, Jahar did not widely promote extremist rhetoric in-person or online. A

single conversation with a friend hinted at his disdain and disbelief regarding the September 11th

terrorist attacks.[133] Some analysts considered this episode to be an accidental slip rather than a

case of socialization, since Jahar quickly reverted to his well-adjusted façade rather than

justifying his views.[134] He also discussed the possibility of striving to reach *Jannah* – or paradise

– with a friend via text.[135] His online presence also appeared innocuous at first, but in hindsight

[130] Ann O'Neill, "Dzhokhar Tsarnaev Trial: The Radicalization of Jahar," CNN, March 30, 2015, https://www.cnn.com/2015/03/27/us/tsarnaev-13th-juror-jahar-radicalization/index.html.

[131] United States of America v. Dzhokhar A. Tsarnaev, a/k/a "Jahar Tsarni, Defendant., No. 1:13CR10200GAO (United States District Court District of Massachusetts June 27, 2013).

[132] Thérèse Postel, "The Young and the Normless: Al Qaeda's Ideological Recruitment of Western Extremists," *Connections* 12, no. 4 (Fall 2013): 114.

[133] Janet Reitman, "Jahar: The Making of a Monster," *Rolling Stone* (blog), July 17, 2013, https://www.rollingstone.com/culture/culture-news/jahars-world-83856/.

[134] *Ibid.*

[135] Ann O'Neill, "Dzhokhar Tsarnaev Trial: The Radicalization of Jahar," CNN, March 30, 2015, https://www.cnn.com/2015/03/27/us/tsarnaev-13th-juror-jahar-radicalization/index.html.

reveals potential hints to Jahar's darker desires. The younger Tsarnaev had profiles on Facebook, Twitter, and VKontakte (a Russian social media website).[136] Between mundane posts he would include comments such as "a decade in America already, I want out," and "never underestimate a rebel with a cause."[137] One post, dated about a year before the attack, declared in Russian, "I will die young."[138] However, investigators uncovered a second Twitter account also utilized by Jahar. This one, with the handle @Al_firdausiA, was where Jahar published more blatantly extreme comments, including one in which he encouraged his followers to follow the teachings of Anwar Al-Awlaki.[139]

The radicalization processes of the Tsarnaev brothers were different but interconnected. Tamerlan utilized the internet to assuage isolation and purposelessness. He found virtual communities among both VIE and RRE forums. He consumed copious amounts of propaganda and formed friendships with other radicals online. His only engagement with a formal militant organization seems to have occurred in-person during his visit to Dagestan. Upon his return he engaged in public and private two-way interaction with extremist material. Meanwhile, Jahar was likely introduced to VIE ideology through Tamerlan. He similarly consumed VIE propaganda and socialized his radical thoughts online. Jahar wrote a manifesto while hiding from law enforcement after the attack; however, he never published it to the internet so it could not be included in this study. The brothers utilized AQAP's *Inspire* magazine as a planning resource but

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[136] Michiko Kakutani, "Unraveling Boston Suspects' Online Lives, Link by Link," *The New York Times*, April 24, 2013, sec. U.S., https://www.nytimes.com/2013/04/24/us/unraveling-brothers-online-lives-link-by-link.html.
[137] *Ibid.*
[138] Alexander Abad-Santos, "'I Will Die Young': The Eerie Subtext of Dzhokhar Tsarnaev on Social Media," The Atlantic, April 19, 2013, https://www.theatlantic.com/national/archive/2013/04/dzhokhar-tsarnaev-social-media-accounts/316092/.
[139] Patricia Wen, "Tsarnaev Posted Radical Messages on Second Twitter Account, FBI Agent Testifies," BostonGlobe.com, March 10, 2015, https://www.bostonglobe.com/metro/2015/03/09/tsarnaev-had-second-secret-twitter-account-witness-testifies/lgiJqqmXlD3ua8HmFLnAZO/story.html.

did not solicit any direct assistance, and neither brother ever credited a specific group with their massacre.

Virtual Community	Mentorship w/ formal Org	Planning Assistance	Socialization of ideas (public or posted)	Socialization of ideas (private messaging)	Absorption of one-way content	Published manifesto	Pledge to unaffiliated group	Searching or planning
X			X	X	X			X

Table 3: Variables Displayed by the Tzarnaev Brothers

Radical Right Extremists

RRE Case Study I: Dylann Roof

One June 17th, 2015, Dylann Roof traveled to Charleston, South Carolina and targeted members of the Emanuel African Methodist Episcopal Church – one of the country's oldest historically Black churches – in a hate crime and terrorist attack.[140] Roof joined a small evening prayer meeting before killing nine members of the congregation and injuring one.[141] Roof's primary goal was to incite a race war in the United States, an objective he cultivated primarily online.[142]

Dylann Roof was a socially awkward youth with multiple untreated mental disorders that contributed to his radicalization.[143] He began failing classes and dropped out of high school after his first year, choosing instead to take GED classes online.[144] Roof completely isolated himself

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[140] Jason Horowitz, Nick Corasaniti, and Ashley Southall, "Nine Killed in Shooting at Black Church in Charleston," *The New York Times*, June 18, 2015, sec. U.S., https://www.nytimes.com/2015/06/18/us/church-attacked-in-charleston-south-carolina.html.

[141] Frances Robles, "Dylann Roof Photos and a Manifesto Are Posted on Website," *The New York Times*, June 20, 2015, sec. U.S., https://www.nytimes.com/2015/06/21/us/dylann-storm-roof-photos-website-charleston-church-shooting.html.

[142] Rachel Kaadzi Ghansah, "A Most American Terrorist: The Making Of Dylann Roof," GQ, August 21, 2017, https://www.gq.com/story/dylann-roof-making-of-an-american-terrorist.

[143] Rachel Loftin, "Rachel Loftin Evaluation of Dylann Roof," Post and Courier, May 12, 2017, https://www.postandcourier.com/rachel-loftin-evaluation-of-dylann-roof/pdf_ee9a9bc6-370d-11e7-937b-5b96064448ca.html.

[144] C. S. Allely and L. Faccini, "Clinical Profile, Risk, and Critical Factors and the Application of the 'Path toward Intended Violence' Model in the Case of Mass Shooter Dylann Roof," *Deviant Behavior* 40, no. 6 (June 3, 2019): 672–89, https://doi.org/10.1080/01639625.2018.1437653.

after dropping out of high school. Apparently, he slept throughout the day and stayed awake all night.[145] His sister estimated that he spent about five years in near total isolation, with the internet as his only connection to the outside world.[146] Reportedly, Roof spent upwards of eight hours online each day until his mother eventually disconnected the internet to force external interaction.[147]

While in isolation, Roof developed an interest in the Trayvon Martin case.[148] He was unable to understand the outrage over Zimmerman's actions as he read the Wikipedia article on the case, thus creating a cognitive opening.[149] In Roof's own words, "the event that truly awakened me was the Trayvon Martin case" which, "prompted me to type in the words 'black on White crime' into Google, and I have never been the same since that day."[150] The first result that appeared on his search was a website run by the Council of Conservative Citizens, a group recognized as a white supremacist organization.[151] To Roof, the top placement of the website within the hierarchical Google search granted the source an innate legitimacy.[152] In fact, he never questioned the information he absorbed from the site since the claims fit his developing

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[145] C. S. Allely and L. Faccini, "Clinical Profile, Risk, and Critical Factors and the Application of the 'Path toward Intended Violence' Model in the Case of Mass Shooter Dylann Roof," *Deviant Behavior* 40, no. 6 (June 3, 2019): 672–89, https://doi.org/10.1080/01639625.2018.1437653.

[146] *Ibid.*

[147] John Elder Robison, "Final Report for Defense Counsel," December 28, 2016, https://bloximages.newyork1.vip.townnews.com/postandcourier.com/content/tncms/assets/v3/editorial/7/7e/77ef2c62-370d-11e7-82e9-afde4330bace/5915a91a5e0e5.pdf.pdf.

[148] Rebecca Hersher, "What Happened When Dylann Roof Asked Google For Information About Race?," NPR.org, January 10, 2017, https://www.npr.org/sections/thetwo-way/2017/01/10/508363607/what-happened-when-dylann-roof-asked-google-for-information-about-race.

[149] Dylann Roof, "Manifesto," accessed February 21, 2021, https://www.documentcloud.org/documents/3259738-Manifesto.html.

[150] *Ibid.*

[151] Rebecca Hersher, "What Happened When Dylann Roof Asked Google For Information About Race?," NPR.org, January 10, 2017, https://www.npr.org/sections/thetwo-way/2017/01/10/508363607/what-happened-when-dylann-roof-asked-google-for-information-about-race.

[152] Rishi Chebrolu, "The Racial Lens of Dylann Roof: Racial Anxiety and White Nationalist Rhetoric on New Media," *Review of Communication* 20, no. 1 (January 2020): 57, https://doi.org/10.1080/15358593.2019.1708441.

grievance narrative. Rather, he suspected the traditional media, mentally delegitimizing platforms outside of the Council of Conservative Citizens, Stormfront, The Daily Stormer, and other known radical websites.[153] His reliance on such websites took him down an extremist rabbit hole and his lack of external, mediating influences allowed him to exist within an isolated echo chamber.

Many sources depict Roof's radicalization as a one-way absorption of radical material.[154] His defense attorney suggested "He [was] simply regurgitating, in whole paragraphs, slogans and facts—bits and pieces of facts that he downloaded from the internet directly into his brain."[155] However, there is some evidence that he attempted to socialize his radical ideations virtually. First, Roof was present in radical forums and operated accounts with pseudonyms like LilAryan.[156] One source noted that Roof bragged on Stormfront forums about his "well versed" knowledge of racism.[157] Second, Roof posted a query on Craigslist which may be viewed as soliciting assistance during the planning portion leading up to the attack. Specifically, he hoped to find a companion to take him on a tour of Charleston and point out prominent black historical sites.[158] In the post he crudely stated that he had no intention of hiring minorities to assist him.[159]

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[153] C. S. Allely and L. Faccini, "Clinical Profile, Risk, and Critical Factors and the Application of the 'Path toward Intended Violence' Model in the Case of Mass Shooter Dylann Roof," *Deviant Behavior* 40, no. 6 (June 3, 2019): 672–89, https://doi.org/10.1080/01639625.2018.1437653.

[154] Rebecca Hersher, "What Happened When Dylann Roof Asked Google For Information About Race?," NPR.org, January 10, 2017, https://www.npr.org/sections/thetwo-way/2017/01/10/508363607/what-happened-when-dylann-roof-asked-google-for-information-about-race.

[155] *Ibid.*

[156] Glenn Smith, Jennifer Berry Hawes, and Abigail Darlington, "FBI Agent: Dylann Roof Reached out to Other White Supremacists before Emanuel AME Church Shooting," Post and Courier, January 6, 2017, https://www.postandcourier.com/church-shooting/fbi-agent-dylann-roof-reached-out-to-other-white-supremacists-before-emanuel-ame-church-shooting/article_b079eb56-d404-11e6-ab8b-3b2091783476.html.

[157] *Ibid.*

[158] C. S. Allely and L. Faccini, "Clinical Profile, Risk, and Critical Factors and the Application of the 'Path toward Intended Violence' Model in the Case of Mass Shooter Dylann Roof," *Deviant Behavior* 40, no. 6 (June 3, 2019): 672–89, https://doi.org/10.1080/01639625.2018.1437653.

[159] *Ibid.*

Third, Roof appears to have deliberately maintained 88 friends on Facebook in a tribute to white power movements.[160] 88 is a significant number as it represents the numerical code for HH or "Heil Hitler."[161] Finally, Roof published many of his ideations in a personal blog titled the lastrhodesian.com, a title that signified his support for the Rhodesian apartheid-era government.[162]

Roof's website was full of radical symbology and hateful rhetoric. The homepage of his website featured a still from a 1992 Australian film about neo-Nazis, *Romper Stomper*.[163] The homepage also contained links for either "Images" or "Text." The image file led to sixty pictures of Dylann Roof displaying various radical symbols or threatening behaviors.[164] The photos often showed him wearing or holding the Confederate and Apartheid-era South African flags, holding various firearms, and burning the U.S. flag.[165] In other pictures he is seen posing with wax figurines of slaves or posing with depictions of the number 1488 – another white power symbol.[166] The text portion of his website led to a document labeled "rtf88," his hastily created manifesto.[167] In it, Roof detailed his initial cognitive opening and espoused radical grievance

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[160] Frances Robles, "Dylann Roof Photos and a Manifesto Are Posted on Website," *The New York Times*, June 20, 2015, sec. U.S., https://www.nytimes.com/2015/06/21/us/dylann-storm-roof-photos-website-charleston-church-shooting.html.

[161] *Ibid.*

[162] Rishi Chebrolu, "The Racial Lens of Dylann Roof: Racial Anxiety and White Nationalist Rhetoric on New Media," *Review of Communication* 20, no. 1 (January 2020): 48, https://doi.org/10.1080/15358593.2019.1708441.

[163] *Ibid.*

[164] *Ibid.*

[165] Frances Robles, "Dylann Roof Photos and a Manifesto Are Posted on Website," *The New York Times*, June 20, 2015, sec. U.S., https://www.nytimes.com/2015/06/21/us/dylann-storm-roof-photos-website-charleston-church-shooting.html.

[166] C. S. Allely and L. Faccini, "Clinical Profile, Risk, and Critical Factors and the Application of the 'Path toward Intended Violence' Model in the Case of Mass Shooter Dylann Roof," *Deviant Behavior* 40, no. 6 (June 3, 2019): 672–89, https://doi.org/10.1080/01639625.2018.1437653; Frances Robles, "Dylann Roof Photos and a Manifesto Are Posted on Website," *The New York Times*, June 20, 2015, sec. U.S., https://www.nytimes.com/2015/06/21/us/dylann-storm-roof-photos-website-charleston-church-shooting.html.

[167] Rishi Chebrolu, "The Racial Lens of Dylann Roof: Racial Anxiety and White Nationalist Rhetoric on New Media," *Review of Communication* 20, no. 1 (January 2020): 48, https://doi.org/10.1080/15358593.2019.1708441.

narratives against multiple minority groups.[168] While Roof's manifesto was likely meant to be a final act, he ultimately engaged the larger RRE community with Stormfront Italia contacting him and asking him to lead a new neo-Nazi sect.[169]

Roof's extreme isolation and escalating mental disorders made him susceptible to online radicalization. The online presence of the RRE movement provided him an accessible community through which he could socialize despite his isolation. A psychological assessment of Roof noted that "Based on his own statements (in the journal and during his FBI interview) it appears that Mr. Roof formed his racial ideas entirely as a result of online interaction."[170] According to Roof, the internet provided him a racial awakening in which he finally understood what he believed to be "the truth."[171] Yet, there is some uncertainty as to how he utilized the internet. Analysis suggests that "it appears his interaction was mostly one-way; in other words, he read quite a lot but contributed little original thought."[172] It is conceivable that he simply absorbed the mass amounts of extremist material with little reciprocal engagement. However, some reports indicate that he did partake in interactive, web-based forums. Additionally, his attempt to obtain assistance from Craigslist and his ideation-signaling on Facebook indicates some experimentation with public virtual socialization of his radical ideals. Finally, his

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[168] Dylann Roof, "Manifesto," accessed February 21, 2021, https://www.documentcloud.org/documents/3259738-Manifesto.html.

[169] Rachel Loftin, "Rachel Loftin Evaluation of Dylann Roof," Post and Courier, May 12, 2017, https://www.postandcourier.com/rachel-loftin-evaluation-of-dylann-roof/pdf_ee9a9bc6-370d-11e7-937b-5b96064448ca.html.

[170] C. S. Allely and L. Faccini, "Clinical Profile, Risk, and Critical Factors and the Application of the 'Path toward Intended Violence' Model in the Case of Mass Shooter Dylann Roof," *Deviant Behavior* 40, no. 6 (June 3, 2019): 672–89, https://doi.org/10.1080/01639625.2018.1437653.

[171] Rachel Kaadzi Ghansah, "A Most American Terrorist: The Making Of Dylann Roof," GQ, August 21, 2017, https://www.gq.com/story/dylann-roof-making-of-an-american-terrorist.

[172] C. S. Allely and L. Faccini, "Clinical Profile, Risk, and Critical Factors and the Application of the 'Path toward Intended Violence' Model in the Case of Mass Shooter Dylann Roof," *Deviant Behavior* 40, no. 6 (June 3, 2019): 672–89, https://doi.org/10.1080/01639625.2018.1437653.

manifesto does not appear to have been a platform on which he intended to socialize ideations but rather a final explanation prior to the attack.

Virtual Community	Mentorship w/ formal Org	Planning Assistance	Socialization of ideas (public or posted)	Socialization of ideas (private messaging)	Absorption of one-way content	Published manifesto	Pledge to unaffiliated group	Searching or planning
?		X	X		X	X		X

Table 4: Variables Displayed by Dylann Roof

RRE Case Study II: Nikolas Cruz

On February 14th, 2018, Nikolas Cruz ordered an Uber which took him to Marjory Stoneman Douglas High School in Parkland, Florida. There, he murdered 17 former schoolmates and staff members and injured an additional 17 victims.[173] Cruz's rampage was classified as a terrorist event by the GTD rather than a non-ideological school shooting because he demonstrated characteristics of white supremacist and possible neo-Nazi leanings.[174] This is further supported by reports which indicate Cruz had etched swastikas onto the magazines of ammunition he used in the attack.[175] It appears that much of Cruz's radicalization occurred with the help of the internet, although he did little to disguise his intent either on or offline.

Cruz and his biological half-brother were adopted together in childhood. Their adoptive father died when the boys were young, and their adoptive mother passed away in late 2017.[176]

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[173] Jessica Contrera, "'Why Did You Do This?,'" Washington Post, January 25, 2019, https://www.washingtonpost.com/news/local/wp/2019/01/25/feature/his-brother-confessed-to-gunning-down-17-people-in-parkland-but-hes-the-only-family-zach-cruz-has-left/.

[174] "Incident Summary for GTDID: 201802140033," Global Terrorism Database, February 14, 2018, https://www.start.umd.edu/gtd/search/IncidentSummary.aspx?gtdid=201802140033.

[175] Paula McMahon, "Nikolas Cruz Left 180 Rounds of Ammunition — with Swastikas — at Parkland School, Sources Say," sun-sentinel.com, March 2, 2018, https://www.sun-sentinel.com/local/broward/parkland/florida-school-shooting/fl-florida-school-shooting-nikolas-cruz-left-180-rounds-20180302-story.html.

[176] Del Quentin Wilber et al., "Months Before Florida Shooting, 911 Calls Show a Teenager in Crisis," *Wall Street Journal*, February 24, 2018, sec. US, https://www.wsj.com/articles/months-before-florida-shooting-911-calls-show-a-teenager-in-crisis-1519423400.

Upon their mother's death, the brothers were separated and living in different households.[177]

Cruz displayed symptoms of undiagnosed mental disorders and he struggled to make friends.

The internet became his primary social outlet. Cruz and several individuals belonged to a private

Instagram group chat named "Murica (American flag emoji) (eagle emoji) great."[178] The group

shared racist memes and videos and exchanged hundreds of messages including escalatory racist,

misogynistic, and homophobic slurs.[179] Interestingly, Cruz's family was racially diverse: his

adoptive father was Hispanic and his brother was likely half Black.[180] Yet, this did not stop Cruz

from stating his desire to kill minority groups in his private messages.[181] Although the group

largely did not support nor believe his murderous intent, he did inform them of his various

preparatory purchases including body armor and weaponry.[182]

Cruz's radical and deviant commentary was not limited to private group chats. He

publicly displayed hate symbols and published indicators of his radical ideologies online.[183] Cruz

used multiple social media platforms including a since-deleted Facebook account.[184] Cruz

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[177] "Nikolas Cruz Interview Transcript" (The Circuit Court of the 17th Judicial Circuit in and for Broward County, Florida, February 14, 2018), https://schoolshooters.info/nikolas-cruz-interview-transcript.

[178] Paul P. Murphy, "Exclusive: Group Chat Messages Show School Shooter Obsessed with Race, Violence and Guns," CNN, February 17, 2018, https://www.cnn.com/2018/02/16/us/exclusive-school-shooter-instagram-group/index.html.

[179] Paul P. Murphy, "Exclusive: Group Chat Messages Show School Shooter Obsessed with Race, Violence and Guns," CNN, February 17, 2018, https://www.cnn.com/2018/02/16/us/exclusive-school-shooter-instagram-group/index.html.

[180] Jessica Contrera, "'Why Did You Do This?,'" Washington Post, January 25, 2019, https://www.washingtonpost.com/news/local/wp/2019/01/25/feature/his-brother-confessed-to-gunning-down-17-people-in-parkland-but-hes-the-only-family-zach-cruz-has-left/.

[181] Paul P. Murphy, "Exclusive: Group Chat Messages Show School Shooter Obsessed with Race, Violence and Guns," CNN, February 17, 2018, https://www.cnn.com/2018/02/16/us/exclusive-school-shooter-instagram-group/index.html.

[182] *Ibid.*

[183] Paula McMahon, Stephen Hobbs, and Megan O'Matz, "Nikolas Cruz Was Investigated after Cutting Himself on Snapchat, State Report Shows," South Florida Sun Sentinel, February 16, 2018, https://www.sun-sentinel.com/local/broward/parkland/florida-school-shooting/fl-school-shooting-nikolas-cruz-cutting-snapchat-20180216-story.html.

[184] Debbie Lord, "Nikolas Cruz's Social Media Pages Had 'disturbing' Material; Have Been Deleted from Facebook, Instagram," The Atlanta Journal-Constitution, February 15, 2018,

possessed two Instagram accounts. One was private but showed him wearing a MAGA hat in the profile picture and describing himself with a single, telling descriptor in his biography: "annihilator."[185] Cruz's other Instagram profile was public before the social media platform deleted his account.[186] His accounts focused heavily on his arsenal, which included both guns and knives.[187] Additionally, he posted photos and comments in which he discussed killing small animals.[188] While many of Cruz's posts did not directly reflect his radical beliefs, they demonstrated a consistent and concerning pattern of potentially deviant behavior that went unchecked – even when brought to the attention of authorities. For instance, a video in which Cruz cuts himself and discusses his desire to purchase firearms was uploaded to Snapchat in September 2016.[189] This led to both an investigation and a wellness check, but little was done to intervene despite his increasingly erratic behavior.[190] Unfortunately, this was only one of many incidents in which authorities were alerted to the potential risk Cruz posed, yet failed to intercede.

Over the years, law enforcement received at least twenty-three calls regarding Cruz's behaviors both online and off. At least three reports indicated that he showed the intent and

https://www.ajc.com/news/national/nikolas-cruz-social-media-pages-had-disturbing-material-have-been-deleted-from-facebook-instagram/vsLTGOLuXhZ64crKATajZP/.

[185] Jessica McBride, "Nikolas Cruz's Social Media Posts About Guns on Instagram," *Heavy.Com* (blog), February 14, 2018, https://heavy.com/news/2018/02/nikolas-cruz-florida-instagram-nicolas-nicholas-social-media/.

[186] Debbie Lord, "Nikolas Cruz's Social Media Pages Had 'disturbing' Material; Have Been Deleted from Facebook, Instagram," The Atlanta Journal-Constitution, February 15, 2018, https://www.ajc.com/news/national/nikolas-cruz-social-media-pages-had-disturbing-material-have-been-deleted-from-facebook-instagram/vsLTGOLuXhZ64crKATajZP/.

[187] *Ibid.*

[188] Paul P. Murphy, "Exclusive: Group Chat Messages Show School Shooter Obsessed with Race, Violence and Guns," CNN, February 17, 2018, https://www.cnn.com/2018/02/16/us/exclusive-school-shooter-instagram-group/index.html.

[189] Paula McMahon, Stephen Hobbs, and Megan O'Matz, "Nikolas Cruz Was Investigated after Cutting Himself on Snapchat, State Report Shows," South Florida Sun Sentinel, February 16, 2018, https://www.sun-sentinel.com/local/broward/parkland/florida-school-shooting/fl-school-shooting-nikolas-cruz-cutting-snapchat-20180216-story.html.

[190] *Ibid.*

potential to become a school shooter.[191] Many early calls came from Cruz's mother who

struggled to manage his angry, violent outbursts.[192] In February 2016, months prior to the call

prompted by the disturbing Snapchat video, a neighbor contacted authorities after seeing a social

media post in which Cruz stated he wanted to turn eighteen so he could buy a gun and attack his

school.[193] Then, in September 2017, YouTuber Ben Bennington notified the FBI when an

individual with the username "Nikolas Cruz" commented on one of his videos saying, "I'm going

to be a professional school shooter."[194] The FBI noted that it received both this tip and a second

in January 2018 that it failed to follow up on.[195] The second tipster was aware of both his mental

status and his stockpile of weapons, warning the law enforcement agency that he could become a

school shooter.[196] Between the two incidents reported to the FBI, there was one more report

made to the Broward County Sheriff's office indicating that Cruz had posted social media

comments in which he expressed suicidal ideations.[197]

Cruz's internet presence showed a unique blend of radical ideologies and deviant

behavior. Privately, he discussed racist and radical far-right values in a small virtual community

that he cultivated online. There he viewed and shared increasingly extreme materials.

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[191]Del Quentin Wilber et al., "Months Before Florida Shooting, 911 Calls Show a Teenager in Crisis," *Wall Street Journal*, February 24, 2018, sec. US, https://www.wsj.com/articles/months-before-florida-shooting-911-calls-show-a-teenager-in-crisis-1519423400.

[192] *Ibid.*

[193] *Ibid.*

[194] John Patrick Pullen et al., "What to Know About Alleged Florida School Shooter Nikolas Cruz: EBSCOhost," TIME, February 17, 2018, http://web.a.ebscohost.com/ehost/detail/detail?vid=0&sid=75a9ff84-36eb-44cf-81af-17bfc28957d6%40sdc-v-sessmgr02&bdata=JkF1dGhUeXBlPWlwLHNoaWImc2l0ZT1laG9zdC1saXZlJnNjb3BlPXNpdGU%3d#AN=128070603&db=bsu.

[195] David Bowdich, "Missed Nikolas Cruz Tips Explained to Senators" (2018), https://video.ebscohost.com/details/1_gjkwclb0?q=nikolas+cruz&deviceId=6ef68300-064f-4512-acd5-18f1a3dcc271&lang=en&minDate=&maxDate=.

[196] Del Quentin Wilber et al., "Months Before Florida Shooting, 911 Calls Show a Teenager in Crisis," *Wall Street Journal*, February 24, 2018, sec. US, https://www.wsj.com/articles/months-before-florida-shooting-911-calls-show-a-teenager-in-crisis-1519423400.

[197] *Ibid.*

Interestingly, he did not subscribe to well-known RRE websites, nor did he belong to any white supremacist organizations despite early reports to the contrary.[198] Initially, the white supremacist group Republic of Florida (ROF) claimed credit for the attack, but no connection was ultimately found between Cruz and the RRE organization.[199] Publicly, Cruz published some of his hate-fueled ideations online. However, the accessible internet forums served as a platform for him to socialize deviant cognitions more so than extremist ideas. He did not attempt to solicit assistance or planning guidance online nor did he attribute the massacre to any group despite ROF's desire to claim him. Finally, Cruz recorded a series of videos in which he discussed his intent in the days leading up to the shooting. In them, he states both his grievances and his plan for the attack.[200] However, the videos were found on Cruz's cellphone and were not published online, indicating the internet ultimately played no role in his plan to leave a lasting manifesto.

Virtual Community	Mentorship w/ formal Org	Planning Assistance	Socialization of ideas (public or posted)	Socialization of ideas (private messaging)	Absorption of one-way content	Published manifesto	Pledge to unaffiliated group	Searching or planning
X			X	X	X			

Table 5: Variables Displayed by Nikolas Cruz

RRE Case Study III: Patrick Crusius

Patrick Crusius grew up in an affluent suburb of Dallas, Texas, where he reportedly had a normal childhood.[201] Crusius was described as a loner by many who knew him but never

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[198] Shawn Musgrave, "How White Nationalists Fooled the Media about Florida Shooter," POLITICO, February 16, 2018, http://politi.co/2Gl3Ihr.

[199] *Ibid.*

[200] *Chilling Footage Shows Nikolas Cruz on the Day of the Shooting*, 2018, https://www.youtube.com/watch?v=rNMGzsxJgkM.

[201] Graham Macklin, "The El Paso Terrorist Attack: The Chain Reaction of Global Right-Wing Terror," *CTC Sentinel* 12, no. 11 (December 2019): 1.

displayed concerning behaviors or indicators of radicalization.[202] In fact, he was a registered Republican whose politics appeared within the mainstream when he discussed issues within his family.[203] Yet, on August 3, 2019, he drove 10 hours to a Walmart in El Paso, Texas where he murdered 22 and injured 26 victims.[204] Crusius's rampage killing was racially and politically motivated, and, as he told investigators, entirely mobilized by online factors.[205]

Crusius was aimless and lonely, making virtual communities particularly appealing. On his LinkedIn profile, Crusius described himself as unmotivated and largely talentless and as routinely spending eight hours a day online."[206] He possessed social media accounts on several mainstream platforms, such as Twitter and Instagram, but each profile had been inactive for years prior to the attack.[207] Instead, the majority of his web-based socialization occurred on 8chan which is an online forum that has become a haven for radicals due to lax usership rules.[208] 8chan became popular with fringe groups when 4chan —another website frequented by radicals— began censoring certain extreme agendas.[209] Crusius was exposed to white

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[202] Adam Elmahrek, Melissa Etehad, and Matthew Ormseth, "Suspect in El Paso Massacre 'Didn't Hold Anything Back' in Police Interrogation," Los Angeles Times, August 4, 2019, https://www.latimes.com/world-nation/story/2019-08-03/what-we-know-about-patrick-crusius-el-paso-rampage.

[203] Michael Biesecker, Reese Dunklin, and Michael Kunzelman, "El Paso Suspect Appears to Have Posted Anti-Immigrant Screed," AP NEWS, August 4, 2019, https://apnews.com/article/df6dc60f37664833ba3b953927ef835d; Erin Ailworth, Georgia Wells, and Ian Lovett, "Lost in Life, El Paso Suspect Found a Dark World Online," *Wall Street Journal*, August 9, 2019, sec. US, https://www.wsj.com/articles/lost-in-life-el-paso-suspect-found-a-dark-world-online-11565308783.

[204] The United States v. Patrick Wood Crusius, No. EP20CR0389 (February 6, 2020).

[205] Erin Ailworth, Georgia Wells, and Ian Lovett, "Lost in Life, El Paso Suspect Found a Dark World Online," *Wall Street Journal*, August 9, 2019, sec. US, https://www.wsj.com/articles/lost-in-life-el-paso-suspect-found-a-dark-world-online-11565308783.

[206] Michael Biesecker, Reese Dunklin, and Michael Kunzelman, "El Paso Suspect Appears to Have Posted Anti-Immigrant Screed," AP NEWS, August 4, 2019, https://apnews.com/article/df6dc60f37664833ba3b953927ef835d.

[207] Graham Macklin, "The El Paso Terrorist Attack: The Chain Reaction of Global Right-Wing Terror," *CTC Sentinel* 12, no. 11 (December 2019): 3.

[208] Erin Ailworth, Georgia Wells, and Ian Lovett, "Lost in Life, El Paso Suspect Found a Dark World Online," *Wall Street Journal*, August 9, 2019, sec. US, https://www.wsj.com/articles/lost-in-life-el-paso-suspect-found-a-dark-world-online-11565308783.

[209] *Ibid.*

supremacist ideologies through 8chan and basic internet searches. He claimed he never had

direct contact with any white nationalists nor formal white power organizations.[210] Instead, his

biggest inspiration was Brenton Tarrant's VIE manifesto, released just prior to Tarrant's

shooting spree in Christchurch, New Zealand.[211] Although there were ideological differences

between the two shooters, Crusius praised the message of Tarrant's ideals in the former's web-

based manifesto.[212]

Just prior to the attack, Crusius uploaded a manifesto to 8chan that outlined both his

intentions and his grievances.[213] At 10:15am an anonymous user uploaded two documents to

8chan's /pol/, or "politically incorrect," discussion board.[214] This specific discussion board had

previously been used as a broadcasting location for other violent extremists due to the anonymity

it provided and the hate speech it consistently hosted.[215] Further, commentators on the /pol/

board often gamify mass violence by portraying casualty counts as scores and lionizing

perpetrators of such events.[216] The first document, which was quickly taken down, was titled

"P._Crusius – Notification Letter."[217] The poster identified the second document as his

[210] Erin Ailworth, Georgia Wells, and Ian Lovett, "Lost in Life, El Paso Suspect Found a Dark World Online," *Wall Street Journal*, August 9, 2019, sec. US, https://www.wsj.com/articles/lost-in-life-el-paso-suspect-found-a-dark-world-online-11565308783.

[211] *Ibid.*

[212] Robert Evans, "The El Paso Shooting and the Gamification of Terror," bellingcat, August 4, 2019, https://www.bellingcat.com/news/americas/2019/08/04/the-el-paso-shooting-and-the-gamification-of-terror/.

[213] Graham Macklin, "The El Paso Terrorist Attack: The Chain Reaction of Global Right-Wing Terror," *CTC Sentinel* 12, no. 11 (December 2019): 2.

[214] Robert Evans, "The El Paso Shooting and the Gamification of Terror," bellingcat, August 4, 2019, https://www.bellingcat.com/news/americas/2019/08/04/the-el-paso-shooting-and-the-gamification-of-terror/.

[215] Erin Ailworth, Georgia Wells, and Ian Lovett, "Lost in Life, El Paso Suspect Found a Dark World Online," *Wall Street Journal*, August 9, 2019, sec. US, https://www.wsj.com/articles/lost-in-life-el-paso-suspect-found-a-dark-world-online-11565308783.

[216] Robert Evans, "The El Paso Shooting and the Gamification of Terror," bellingcat, August 4, 2019, https://www.bellingcat.com/news/americas/2019/08/04/the-el-paso-shooting-and-the-gamification-of-terror/.

[217] Graham Macklin, "The El Paso Terrorist Attack: The Chain Reaction of Global Right-Wing Terror," *CTC Sentinel* 12, no. 11 (December 2019): 2.

manifesto, titling it "The Inconvenient Truth."[218] It read, "This attack is a response to the

Hispanic invasion of Texas. They are the instigators, not me. I am simply defending my country

from cultural and ethnic replacement brought on by the invasion."[219] The 2,300-word manifesto

discussed Crusius's racial and political grievances and his particular disdain for immigrants. The

document is divided into five sections: political motivations, economic factors, equipment

utilization, expected reactions, and personal thoughts.[220] The ideologies throughout the manifesto

are disjointed and inconsistent, but white supremacist narratives —including concern over racial

"mixing"— persist throughout.[221]

Patrick Crusius socialized radical ideologies entirely online within the virtual community

provided by 8chan. There is no evidence that he communicated privately with radical individuals

or formal organizations. Instead, he utilized the public web forum as a way to discover and

interact with extremist material anonymously. Crusius absorbed significant amounts of one-way

content including lengthy manifestos from past ideological extremists. Interestingly, his own

manifesto was ideologically scattered, indicating that he may have simply regurgitated ideations

from others without ever socializing his own thoughts. In fact, Crusius's grandfather noted that

despite the disjointedness of the document, the language in the manifesto seemed too

sophisticated to be produced entirely by Crusius.[222] It does not appear Crusius put significant

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[218] Graham Macklin, "The El Paso Terrorist Attack: The Chain Reaction of Global Right-Wing Terror," *CTC Sentinel* 12, no. 11 (December 2019): 2.

[219] The United States v. Patrick Wood Crusius, No. EP20CR0389 (The United States District Court For the Western District of Texas El Paso Division February 6, 2020).

[220] Yasmeen Abutaleb, "What's inside the Hate-Filled Manifesto Linked to the Alleged El Paso Shooter," *Washington Post*, August 4, 2019, https://www.washingtonpost.com/politics/2019/08/04/whats-inside-hate-filled-manifesto-linked-el-paso-shooter/.

[221] *Ibid.*

[222] Erin Ailworth, Georgia Wells, and Ian Lovett, "Lost in Life, El Paso Suspect Found a Dark World Online," *Wall Street Journal*, August 9, 2019, sec. US, https://www.wsj.com/articles/lost-in-life-el-paso-suspect-found-a-dark-world-online-11565308783.

planning into his attack. He simply selected a location far from family and in an area where he felt he could target minorities. He purchased the ammunition and rifle used in the attack online, but he did not socialize his intentions prior to uploading his manifesto to 8chan. This was a case of lone actor violence motivated and mobilized entirely through the internet.

Virtual Community	Mentorship w/ formal Org	Planning Assistance	Socialization of ideas (public or posted)	Socialization of ideas (private messaging)	Absorption of one-way content	Published manifesto	Pledge to unaffiliated group	Searching or planning
X			X		X	X		

Table 6: Variables Displayed by Patrick Crusius

Part IV: Analysis & Discussion
Analysis

The study was designed around evidence from past research which indicated that different types of extremist organizations pursued distinct techniques when engaging sympathizers online. Previous literature suggested that VIEs like ISIS and Al Qaeda attempt to create breeding grounds on the internet by creating interactive, gamified user experiences. A study conducted by J.M. Berger indicates that these groups also groom online recruits in a manner meant to mimic escalatory socialization mechanisms. Conversely, literature shows that RRE organizations hope to propagate enough radical material to legitimize alternative narratives and undermine traditional information resources. They do so by manipulating search algorithms, denouncing traditional media sources, and creating large-scale information campaigns. Isolated individuals can easily find themselves in echo chambers where radical ideologies are reinforced and normalized.

Although research exists assessing how extremist organizations have utilized the internet, there is little empirical evidence comparing the unique experiences of the targeted audience, particularly as they relate to the strategies adopted by different types of extremist organizations.

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This gap led to the research question of whether individual actors were influenced by online mobilization techniques in the way larger radical groups intended. The initial hypothesis (H1) presumed online behaviors differed between VIE and RRE actors. The sub hypotheses expected to find VIE actors partaking in more interactive web-based engagement and RRE actors to be consumers of one-way content. However, comparative case study analysis of the role the internet played in the radicalization process leading up to six major extremist events did not support the hypotheses. Instead, the study shows that online behaviors are consistent among actor type.

	Mateen	Farook & Malik	Tsarnaev brothers	Dylann Roof	Nikolas Cruz	Patrick Crusius
Interacted w/ a Virtual Community			X	?	X	X
Sought mentorship w/ formal Organization						
Recruited Assistance				X		
Socialized ideas via public posts		X	X	X	X	X
Socialized of ideas in private messages		X	X		X	
Consumed one-way content	X	X	X	X	X	X
Published manifesto				X		X
Pledged to unaffiliated group	X	X				
Searched or planned attack	X		X	X		X

Table 7: Comprehensive Comparison of Variables

The research categorized online behaviors as either interactive or non-interactive. The latter category included one-way consumption of radical materials and one-way publication of ideology – such as manifestos or pledges to unaffiliated groups. Within the cases studied, such posts did not definitely further the examined actors' radicalization. Rather, manifestos and pledges were shared just prior to the attacks, indicating that the actor had radicalized prior to publicly disseminating extremist views. From there, interactive and non-interactive behaviors were examined against actor type.

The findings show five instances of interactive behaviors among VIE actors and seven among RRE actors. Socialization of ideology in public forums was demonstrated equally across both communities, while socialization of ideology in private messages was utilized more often in VIE cases. Neither VIE or RRE actors sought formal mentorship from a known extremist organization. Further, apart from Dylann Roof briefly soliciting a tour of Charleston via Craigslist, extremist actors proved unlikely to seek assistance via the web. Finally, interaction within a virtual community was more prevalent amongst RRE cases than VIE – almost directly contradicting expected results. Of note, contradictory reports regarding Dylann Roof's involvement in virtual communities made the variable too difficult to code, leading to its exclusion from the analysis. Additionally, only one source provided information suggesting Roof posted radical ideations in a public, online forum. The data was included in the analysis, but the result may be misleading due to a lack of substantiation.

Non-interactive internet behaviors were split equally among actor type, with both groups displaying seven counts of individual radical internet activity. In fact, the most consistent behavior present in the study was the absorption of radical materials (e.g., videos, magazines, and static websites), with consumption of one-way information evident in every case. Both types

of actors partook in online planning activities and pre-attack pronouncements. VIE actors tended pledge allegiance to unaffiliated groups while RRE actors showed a higher likelihood of issuing online ideological manifestos. The RRE tendency of publishing manifestos aligned with H1b given that the sub-hypothesis resulted from the understanding that the radical right intends to perpetuate alternative narratives and awaken others to grievances.

The VIE and RRE extremists examined in this study exhibited very similar online behaviors. If anything, RRE cases showed somewhat more online interaction than VIE, demonstrating an inverse of the anticipated results. That said, this elevated level of interaction is not statistically significant due to uncertain findings in the Roof case. Therefore, this study cannot definitively identify a clear trend. Instead, it shows that VIE and RRE actors interface comparably online during individual radicalization processes, despite the different mobilization techniques utilized by larger extremist organizations.

Discussion

This research project was initially framed as an examination of the internet's effect on the radicalization process. However, as the study progressed, it revealed more about how various actors interacted with online materials rather than the way the internet's structural characteristics encouraged the process. A clear correlation is evident between radicalization and certain internet behaviors; namely the consistent, one-way consumption of extremist materials. However, the study sought to understand whether the online radicalization phenomenon differed between different types of extremist actors. The research did not seek to establish a causal relationship between the internet and the radicalization process. How the internet's characteristics and mechanisms – such as the means with which individuals search and receive information – affect rates of radicalization may be explored in future research. Such analysis can build upon the

findings from this study which suggest the web-based radicalization behaviors are consistent across actor type.

A second potential study could assess the replicability of results in different regions. This study assessed extremist actors within the United States. It would be relevant to determine whether the findings remained consistent in areas where grievances differ, or internet access is more controlled. Alternatively, research may comparatively analyze internet usage in the radicalization process of other types of violent ideological extremists, as this project only considered two groups. Future research could also expand upon current findings by introducing quantitative elements with additional data points from further case studies. Lastly, this assessment was constrained by available information and relied heavily on high profile cases with significant media coverage. Additional time and resources could generate more data from additional cases to verify findings. Interviews with living perpetrators would also provide relevant information that was not available in this study.

<u>Conclusion</u>

The determination that radicalization activities are consistent across actor types is an important addition to literature for multiple reasons. First, past studies established that extremist organizations approach online mobilization strategies differently. Despite this, the phenomenon of virtual radicalization manifests similarly among actor types. Second, recognizing the commonalities may better inform policy and assist counterterrorism efforts, particularly as mass violence events are increasingly perpetrated by homegrown and domestic extremists rather than members of known, transnational terror cells.[223] As such, it is imperative to understand how

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[223] Jason Burke, "The Age of Selfie Jihad: How Evolving Media Technology Is Changing Terrorism," *Combating Terrorism Center Sentinel* 9, no. 11 (November 30, 2016), https://ctc.usma.edu/the-age-of-selfie-jihad-how-evolving-media-technology-is-changing-terrorism/.

potential terrorists engage with radical, mobilizing content. Finally, the global pandemic has introduced new grievances worldwide. It has also isolated much of the populace for significant periods of time, leaving the internet as the primary social outlet for much of the population. It is possible that the conditions imposed by COVID-19 on society will lead to increased radicalization and mass violence events. Aggrieved, isolated individuals may follow internet rabbit holes, finding themselves in radical echo chambers and engaging in online behaviors which socialize extremist ideology and mobilize future extremist actors.

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Curriculum Vita

Halle Baltes is originally from Cleveland, Ohio but has had the pleasure of living in many exciting places. She currently lives in Kailua, Hawaii with her husband. Halle attended Miami University in Oxford, Ohio and received a Bachelor of Arts in International Relations with minors in Naval Science and Arabic. Upon graduation, she worked with Booz Allen Hamilton where she supported Department of Defense clients in Washington, D.C. and Monterey, California. In her free time, Halle enjoys reading, travelling, and spending time with friends and family.