The Digital Caliphate: Critically Examining the Islamic State's Use of Cyberspace to Advance It's Overarching Goals

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Abstract

This literature based study will seek to critically examine the nuanced relationship between the Islamic State and the internet, particularly as a tool which has been exploited to further the groups wider goals. This study will endeavour to examine this complex relationship by analysing three key components of the Islamic State's use of cyberspace, specifically in regards to communication, propaganda and recruitment. Following this analysis, this study will conclude that whilst the evolution of the digital age has clearly offered the Islamic State unique opportunities to facilitate their overarching goals, the relationship between cyberspace and violent extremism remains an extremely nuanced and contentious area of study, laying the foundations for deeper academic investigation.

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Introduction

The overarching aim of this research will be to critically examine the ways in which Islamic State (IS) has utilised the internet as a tool to advance the groups wider goals in a local, national and transnational context. This research will specifically seek to answer the overarching research question of how the Islamic State has utilised the internet as a tool to advance the groups overarching goals by analysing three key components:

. Critically examining the Islamic State's use of cyberspace as a tool of communication

. Critically examining the Islamic State's use of cyberspace as a tool of propaganda dissemination

. Critically examining the Islamic State's use of cyberspace as a tool to facilitate recruitment

Following this analysis, this study will seek to argue that following a review of academic literature, empirical studies and key theoretical concepts that the Islamic State has successfully utilised cyberspace as a key pillar of its overarching strategy, allowing the group to fulfil a number of key functions. However, this study will also seek to acknowledge that the relationship between the internet and violent extremism more broadly remains a nuanced phenomenon, therefore more research is imperative in order to refine the wider understanding of the relationship between cyberspace and terrorist entities such as Islamic State.

It is first crucial to outline that this study will be conducted theoretically, particularly critically analysing salient academic literature and debates outlined by key scholars within the field of terrorism studies, as studies have suggested that secondary research offers the opportunity to examine a vast body of existing data whilst simultaneously creating opportunities to identify and explore salient themes within existing research (Dunn et al 2015). This assertion that a literature based study offers unique opportunities to explore salient themes is built upon by Fernandez (2019) who has argued that research which focuses on existing literature offers greater scope to identify and examine gaps within the field, placing the researcher in a stronger position to contribute towards the creation of new knowledge. Consequentially, scholars have asserted that within the scope of contemporary research, a literature based approach offers an effective framework within which academics may explore a plethora of literature, identify gaps and to reveal existing weaknesses, contradictions and common themes, rendering this a suitable

form of research within the scope of this study (Xiao and Watson 2017). In addition to these practical implications, research has argued academics who conduct primary research exploring contentious or socially sensitive topics such as terrorism are inherently prone to secondary distress and more likely to experience negative psychological impacts, consequentially, secondary research offers both the opportunity to explore a wide breadth of literature whilst simultaneously minimising the potential negative implications of terrorism research (Orr et al 2021). Consequentially, as will be discussed in greater detail within the methodology section of this study, it is clear that building the foundations of this study upon a literature based approach clearly offer the most effective and secure way in which to explore such a nuanced and contentious topic.

This topic was specifically adopted as the focus of this study for a number of reasons, particularly as academics have asserted that research specifically examining terrorism has not been afforded the same scholarly attention as other forms of criminality (Tracy 2012). Intertwined with this chronic lack of focus on terrorism research, studies have suggested that the relationship between terrorist entities such as Islamic State and cyberspace represent an emerging threat which now poses a unique challenge to academics and policy makers within contemporary security (Hossain 2018), rendering the examination of the ways in which groups such as Islamic State have exploited this new platform imperative in order to understand the threat posed by current violent extremism. This assertion that contemporary terrorism poses a uniquely effective threat to modern society is further anchored by wider research which has argued in the post-9/11 terrorist movements have emerged which may cause significant death and destruction at a transnational level using a plethora of new tools at their disposal, creating bespoke challenges for academics and those seeking to counter violent extremist activities (Baker-Beall 2013). Baker-Beall's (2013) assertion is echoed by empirical findings by Sandler (2013) who has found that since 1997 there has been a significant growth in transnational terrorism fuelled by the evolution of religious fundamentalist violent extremism, rendering this form of violent extremism an area of acute interest for contemporary terrorism scholars.

In addition to this broader emerging threat, the rise of Islamic State has garnered particular attention on the global stage drawing the gaze of those seeking to understand the evolution of contemporary terrorism, particularly following the groups dramatic seizure of territory and swathe of terror attacks across the globe (Chatterjee 2016). This notion that Islamic State has marked a significant evolution in contemporary terrorism is echoed within wider literature, for

instance Hama (2019) has suggested that within modern history there have been three waves of Jihadi terrorism, with Islamic State's arrival on the global stage marking a third wave embodied by a focus on propaganda intertwined with an emphasis on violence and savagery above theology. Islamic State's ability to exploit barbarity as a tool to facilitate their overarching aims has afforded this terrorist entity a unique position within the minds of academics and policy-makers, rendering Islamic State a key example of the threat posed by contemporary terrorism and a rich source of analysis for those seeking to understand the ways in which modern terrorism is moulding and adapting to the new tools at its disposal (McCrow-Young and Mortensen 2021).

Furthermore, whilst Islamic State's physical caliphate in Syria and Iraq has crumbled beneath a co-ordinated international campaign against the group, academics have noted that Islamic State has consistently maintained a strong presence within the digital sphere, rendering this a key pillar of the groups strategy and fertile ground for academic analysis (Wignell et al 2018). Exploring this assertion in more depth, academics have proceeded to argue that Islamic State's focus on the digital sphere has continued to expand and evolve, facilitating a number of key functions particularly communicating messaging to a transnational global audience, disseminating propaganda and sowing the seeds transnational insecurity rendering this an imperative area of analysis for those seeking to explore the groups growth and outline the threat it poses today (Yarchi 2019). Furthermore, interwoven with the clear relationship between Islamic State and cyberspace, the evolving focus on digital platforms intertwined with the groups prominence on the global stage have highlighted the ways in which modern technology is shaping contemporary terrorism and consequentially creating new challenges for those seeking to counter violent extremism, particularly in the western world (Greenberg 2016). Consequentially, the rise of Islamic State as a key terrorist actor within the modern world intertwined with the groups effective use of cyberspace as a tool within its strategy clearly offered fertile ground for this study to explore in order to contribute towards a key area within contemporary terrorism studies.

Methodology

When seeking to explore in more depth the potential avenues of exploration within this study, it is evident that the inherently broad nature of examining cyberspace reinforce the necessity of clear objectives which are transparent, specific and actionable in order to retain a coherent structure within this research (Van Ekelenburg, 2010). Van Ekelenburg (2010) proceeds to assert that within a study of reasonable size, whilst an overarching research question is critical, smaller objectives are also crucial in order to break this overarching question into smaller, more manageable parts which create precise, tangible objectives. Furthermore, Abdulai and Owusu-Ansah (2014) have reinforced this assertion, suggesting that to successfully answer a broader research question, specific and unambiguous objectives are the key pillars of a coherent research structure, laying the foundations for key elements of discussion. Consequentially, within this study whilst the overarching aim of the study will seek to answer 'How did the Islamic State utilise cyberspace to advance its overarching goals?', this will be broken into three key objectives as follows:

. Critically examining the Islamic State's use of cyberspace as a tool of communication

. Critically examining the Islamic State's use of cyberspace as a tool of propaganda

dissemination

. Critically examining the Islamic State's use of cyberspace as a tool of recruitment

In order to critically analyse and explore the intricate web of existing knowledge which may offer answers to these objectives, this study will engage in a literature-based investigation which will utilise a range of sources including journal articles, books, speeches and databases. This approach was specifically adopted as research has argued that within the field of terrorism studies a vast breadth of literature remains accessible yet chronically under-researched, offering unique opportunities for those seeking to examine contemporary terrorism and its impact on society (Tracy 2012). Building on this assertion, a literature-based approach was selected within this study rather than empirical as academics have argued that literature-based research offers a plethora of opportunities to explore findings and key debates within a vast body of wider academic work (Winchester and Salji 2016). Looking at the benefits of a literature-based approach specifically within the field of terrorism studies, Cubukcu and Forst (2017) have suggested that open source data such as journal articles and databases offer a

bespoke opportunity for researchers examining violent extremism to understand the sources, impacts and natures of terrorist actors, rendering the use of literature a key tool within this field. Consequentially, whilst empirical research was considered within the construction of this study, it is evident that a literature-based analysis offers the scope of this study a rich source of exploration and the opportunity to examine both sources of agreement and contestation in existing literature.

In addition to this methodological approach, it is also critical to outline the ways in which ethical considerations will underpin this research, particularly as academics have argued that ethical considerations are imperative to ensure that research processes remain fair, safe and humane particularly in studies which tackle complex societal issues (Borrett et al 2016). Building on this, research has proceeded to argue that whilst research ethics are a complex and contentious element of academic investigation, they have come to form a key pillar of the research process which broadly seeks to ensure that studies are conducted safely, fairly and accurately rendering them a key element within contemporary research (Connor et al 2017).

Within this research, a literature-based approach has been specifically adopted, particularly as research has argued that terrorism is an inherently dangerous, contentious and complex topic therefore many scholars have adopted a theoretical research stance (Sandler 2011), particularly as a tool to navigate the plethora of ethical risks associated with empirically researching this phenomenon. Exploring these inherent challenges associated with empirically research socially provocative issues further, it has been asserted that research topics which are legally precarious, highly politicised and revolve around criminal activity are extremely susceptible to ethical errors posing a vast spectrum of challenges and risks to the researcher and any potential participants (Clark-Kazak 2021). As a result of the clear ethical risks associated with empirically researching a topic as contentious as terrorism, this research will specifically adopt a literature-based as this will minimise the potential risks to both the researcher and any potential participants simultaneously allowing this study to critically analyse the relationship between the Islamic State and cyberspace without directly engaging with terrorists, ideological sympathisers or terrorist material. However, it is important to note that whilst a literature-based approach will be adopted within this research in order to minimise the potential ethical complications which may arise from any empirical research concerning terrorism, it is also critically important to note that some academics may question the strength of solely utilising secondary data, particularly regarding a subject which is so nuanced, complex and contentious (Cubukcu and Forst 2017).

Within the context of this research, it is also important to note that highly contentious terms will be employed to identify key tactics and event's for instance the term terrorism, which has eluded a definitive singular definition within the realm of terrorism studies and provided a source of debate, contention and nuance since the field has emerged as a sub-section of criminology (Cubukcu and Forst 2017). This ambiguity is evidenced by the existence of over one hundred definitions of terrorism, furthermore academics have suggested that terrorism is an inherently politicised concept with varying definitions intrinsically underpinned by subjective political, social and economic factors which shape individual views of the world and specific events (Hase 2021). The notion that many of the varying definitions of terrorism are highly politicised is reflected in broader academic discourses which assert that many definitions put forward, whilst sharing key characteristics, differ on key issues such as the viability of the state as a terrorist actor or the underpinning motivations which may encompass terrorist ideology (Lutz and Lutz 2013). Despite this inherent nuance and contested nature of the term terrorism, this study will seek to analyse Islamic State as a terrorist entity, particularly as they fulfil the definition of a functioning terrorist entity outlined by Sandler (2011) who describes terrorism as "the premediated use or threat of violence by individuals or subnational groups to obtain a political or social objective through the intimidation of a large audience beyond that of the immediate victims" (Sandler 2011 page 280). However, it is important to note that whilst a definition has been adopted in order to create a clear framework within the scope of this study, the use of this definition may consequentially render this analysis the subject of academic critique, as any definition of terrorism is inherently contested and subject to intense academic scrutiny (Armborst 2010).

Chapter 1: Critically Examining the Islamic State's Use of Cyberspace as a Tool of Communication

Following the foundations built within the opening chapters of this study, this chapter will seek to critically analyse the ways in which the Islamic State utilised cyberspace as a tool of communication, in order to begin constructing a wider understanding of the ways in which the digital sphere has facilitated the groups wider goals. This analysis is particularly critical as research has argued that communication is one the salient underpinning factors which drives and shapes contemporary terrorism, therefore the increasing shift towards the online space as a tool of communication, particularly demonstrated by the adaptability and prowess of Islamic State within this space, offers fertile ground to explore this aspect of the groups digital behaviour (Borelli 2021).

Firstly, when seeking to comprehensively analyse the ways in which the Islamic State has utilised cyberspace as a tool for communication, it is important to note that the inherent nature of cyberspace has offered the group new communicative opportunities, allowing communication between the group, sympathisers and the wider global community without the traditional constraints of space and time (Lee et al 2021). The notion that the inherent nature of cyberspace has offered the Islamic State unique opportunities to communicate with a global audience is further anchored by research which has inferred that the evolution of the digital age has created bespoke opportunities for violent extremists to bypass traditional media gatekeepers and to communicate directly with both a global audience and particularly those sympathetic to extremist ideology (Yarchi 2019). Furthermore, it has been asserted that whilst Jihadi groups ranging from Al-Qaeda to Al-Shabaab have increasingly sought to engage with cyberspace, the Islamic State has demonstrated a unique prowess within the digital sphere and the unconventional communication opportunities afforded by this space, allowing the group to communicate with a local, regional and global audience through a plethora of platforms ranging from Telegram to Twitter (Hossain 2018). Consequentially, it is evident that there is an emerging body of literature drawing links between the Islamic State, cyberspace and wider themes of evolving terrorist communication, therefore this clearly offers a rich source of analysis when seeking to analyse the overarching ways in which the Islamic State has engaged with the digital sphere (Yarchi 2019).

Nation State Building

Exploring this complex relationship between the Islamic State's desire to communicate with a global audience and cyberspace in more depth, research has proceeded to argue that the use of cyberspace as a tool of communication may be regarded as a salient strategy within Islamic State's nation building effort, linking together those who perceive themselves as subjects of the Islamic State through a global network of digital spaces (Al-Rawi 2019). Al-Rawi (2019), has proceeded to argue that communication in particular is central within the role of nationstate building within the context of Islamic State, as these new communicative opportunities offer ideological sympathisers the ability to engage with a wider community and collective ideology, strengthening a sense of belonging to the group across borders and time, anchoring the ability of the group to entice support and action at an international level. The assertion outlined by Al-Rawi (2019) that the communicative functions of cyberspace have served a critical role in cultivating the Islamic State's image as a legitimate state is further supported by wider research which has argued that the internet has been overtly exploited by the group as a way to both encourage ideological supporters to engage in online spaces and consequently to use this transnational engagement as a way to foster ideological cohesion, solidifying the groups ideology, sentiments of statehood and wider ability to penetrate the communities they seek to appeal to (Milton 2018).

In addition to fostering ideological cohesion and transnational communication, the Islamic States use of cyberspace as a communicative sphere has also been used as a tool to reconstruct notions of identity, for instance the group has sought to emphasise to followers online the destruction of historic sights and artifacts which weave together national and regional identities, demonstrating the ways in which the Islamic State has sought not only to build a nation state through interpersonal communications but also through communications which highlight the dismantling and devastation of pre-existing cultures and societies (Shahab and Isakhan 2018). Shahab and Isakhan (2018) have proceeded to argue that this communication of heritage destruction across the digital sphere is not solely intended to demonstrate the strength or cohesion of the Islamic States perceived destruction of competing identities whilst simultaneously using this to perpetuate the notion of a single, unified, homogenous state which ideological sympathisers may travel to in order to reconstruct society. Consequently, it is clear that the communicative opportunities afforded within the digital age have allowed the

Islamic State to interact with both ideological sympathisers and a wider global audience in order to both nurture transnational engagement between its supporters and to demonstrate the destruction of competing identities in order to strengthen and embolden the perceived legitimacy of the Islamic State as a nation and functioning entity.

Building upon this notion that communication has a profound impact on the overarching goals of the Islamic State, research has argued that direct communication on new platforms such as social media have allowed the Islamic State to retain the control of the narrative, engaging directly with users online allowing them to mould public perceptions and to bolster their perceived strength among a sympathetic audience (Zeitzoff 2017). It is clear that the Islamic State has been acutely aware of the power these communicative abilities offers the movement particularly as the group has sought to reach out to the global Islamic community and present itself as a legitimate caliphate, demonstrated by the groups focus on using social media as an outreach tool to connect with ideological sympathisers worldwide and the construction of a dedicated Islamic State public relations department to nurture these communicative bonds (Haykel 2016).

This direct engagement between the Islamic State and its global audience is arguably imperative, as it has been asserted that the underlying foundation of the Islamic State's success as a movement relies on its ability to create a solid, clearly conveyed brand and to convince ideological sympathisers of its legitimacy as an Islamic caliphate which can garner the support of those harbouring Jihadi ideology across global borders and time constraints (Bandopadhyaya 2019). Building on this notion of brand, research has argued that Islamic State's uniquely effective ability to communicate and draw together a global network of supporters online has in itself become an element of the groups notoriety, rendering the expansion of the digital caliphate and its ability to communicate with supporters as central to the groups image and legitimacy as actions on the ground and in the offline sphere (Greenberg 2016). Therefore, it is clear the direct lines of communication and interaction afforded to the Islamic State by the inherent nature of cyberspace are a key pillar within its global strategy, as this communicative ability interwoven with the groups concerted focus on user engagement, interactivity and cultivating a global collective of digital Jihadist networks have allowed it to flourish at a local, regional and transnational level both online and offline (Bandopadhyaya 2019).

Anonymity and Social Media

Furthermore, when seeking to critically explore the ways in which the Islamic State has utilised the digital sphere as a tool of communication, it is vital to note that the group has particularly utilised social media, using platforms such as Facebook, Twitter and YouTube as spaces to communicate with ideological sympathisers and to engage with a global audience weaving an intricate web of digital sympathisers (Ceron et al 2019). The notion that social media in particular has become a rich source of interpersonal communication which has facilitated the overarching goals of groups such as the Islamic State is also reflected in wider research, for example Borelli (2021) has argued that the use of social media as a form of communication between terrorist groups such as the Islamic State, lone actors and a wider audience, offers a unique level of interactivity, reach and immediacy which simply did not exist in the pre-digital age. Borelli (2021) goes further, suggesting that social media offers terrorist groups the opportunity to engage in 'mass self-communication' wherein traditional ways of disseminating terrorist messaging such as news coverage which relied on the compliance of traditional gatekeepers have been replaced, allowing terrorist groups such as the Islamic State to communicate their ideology directly to an audience who may communicate back, allowing relationships to be formed through these social platforms.

Research has argued that this engagement with social media also reflects a wider trend in terrorist online activity, wherein violent extremist actors are exploiting these spaces as fertile ground to create and engage with virtual profiles which offer anonymity, creating an online environment wherein members of the Islamic State and sympathisers across the globe may interact without fear of identification and retribution (Bhui and Ibrahim 2013). The notion that the anonymity afforded by social media has been exploited by the Islamic State is reinforced by wider literature which has suggested that social media platforms offer unique spaces wherein extremist actors may discuss, share and reinforce each others views cultivating spaces which both encourage acts of violent extremism and increasingly radical perspectives, demonstrating the unique opportunities these spaces offer violent extremist groups such as Islamic State (Ceron et al 2019). It is important to note that the anonymity afforded to users within the digital sphere interwoven with the Islamic State's clear focus on diluting these spaces with extremist ideology may have a tangible impact on their wider effectiveness, for example it has been suggested that virtual spaces where extremist communications between users flourish may contribute towards these users proceeding to adhere more rigidly to a group

such as Islamic State's worldview, growing the group's support base and cultivating the movements wider sense of legitimacy (Bowman-Grieves 2009).

Virtual Communities

Building on this emphasis between social media and communication, it has also been argued that it is imperative to explore the creation of virtual communities within these digital spaces wherein users assemble online to disseminate and discuss extremist ideology as these spaces have become increasingly prominent and critical in supporting the evolution of extremist networks both online and offline (Murthy 2021). For example, Murthy (2021) has proposed that the dawn of the social media age has created bespoke spaces online where those harbouring ideologies sympathetic to groups such as Islamic State may connect with other users, creating echo chambers which serve to both reinforce the views of those who possess extremist ideology and to push those on the periphery into deeper engagement with the group's core beliefs. This notion that the digital sphere has created echo chambers wherein actors sympathetic to the Islamic State may converge to seek out ideologically aligned peers, build solidarity and dissect ideologically is supported by Zeitzoff (2017), who has argued that whilst historically these violent extremist activities happened locally in secret locations, they now occur in public digital spaces at a transnational level as a result of the evolution of cyberspace. The prevalence of these digital spaces wherein extremist ideologues such as Islamic State supporters converge to reinforce has become so acute that this has led to some scholars noting the emergence of a 'social dark web' wherein actors are being communicated with and consuming narratives which support the worldview of groups such as Islamic State, sowing the seeds of transnational insecurity and fostering disharmony (Kwon et al 2021).

Anchoring this proposed relationship between virtual spaces and communication, research has argued that this construction of virtual communities wherein groups such as the Islamic State may unite ideological sympathisers, key actors within the group and a wider global audience is key, particularly within the realms of social media which encourage interactivity and direct engagement, increasing individuals sense of belonging to a collective and active participation (Zeitzoff 2017). This broader assertion that communication is a key component in cultivating violent extremism is supported by a key theory within the field of terrorism studies entitled the 'bunch of guys' theory which suggests that violent extremists interacting is a key element of the contemporary Jihadi radicalisation, driving actors to seek legitimacy, praise and comradery

among their peers (Sageman 2004). Sageman (2008) has proceeded to expand on this key claim, taking note of the increasingly pivotal role of cyberspace, arguing that wherein actors once communicated exclusively offline, this "same process is now taking place online" (Sageman 2008 page 116). The notion that the Islamic State has sought to cultivate a unique virtual community through interactive communication is anchored by wider research which has argued that the Islamic State has constructed a distinct identity and perpetuated this in their online communications, seeking to offer those who share their Jihadi ideology a spiritual and political community which enforces and nurtures their violent extremist beliefs in order to cultivate a sense of joint struggle and belonging to the caliphate amongst virtual audiences (Haykel 2016). Consequentially, this clearly indicates that whilst communication was once solely feasible within the physical world, the dawn of the digital age has created new opportunities for groups such as the Islamic State, allowing them to cultivate violent extremist attitudes across the globe by exploiting this yearning for belonging and comradery among a disenfranchised Islamic youth (Sageman 2004).

Countering Islamic State Communications

While it is evident that the Islamic State has successfully exploited cyberspace and particularly social media platforms as tools to engage with a global audience, interact with ideological sympathisers and to cultivate violent extremist attitudes among a digital community, these spaces have also been utilised to counter the group's ability to communicate effectively (McCrow-Young and Mortensen 2021). For example, research has noted that while Islamic State has sought to exploit social media algorithms such as the use of hashtags to encourage engagement between ideological sympathisers, those opposed to the Islamic State have also utilised these trends as a way to disrupt Islamic State's dominance, instead using these threads of discussion as a way to distribute counter-narratives and to promote anti-Islamic State lines of discussion (McCrow-Young and Mortensen 2021). In addition to this grassroots activism to counter the communicative prowess of the Islamic State, the unique ability of Islamic State to retain a presence so effectively online has prompted a wave of partnership between governments across the globe and private companies to combat this ideology seeping into digital spaces and to counter the lines of communication between the Islamic State and its intended audience by utilising a string of measures ranging from increased regulation to adbased counter-messaging (Selim 2016). However, whilst a plethora of actors have sought to combat the communicative strength of the Islamic State within cyberspace when examining the impact of these measures it is evident that the nuanced nature of digital content and spaces render this a difficult space to police as a vast body of Islamic State communications do not explicitly break the guidelines outlined by private companies (Hashemi and Hall 2019) and Islamic State has actively adopted a policy of virtual migration wherein once lines of engagement become severed in one space they simply move deeper onto more heavily encrypted or less regulated platforms (Ganesh and Bright 2020). Therefore, it is clear that whilst there have been consolidated efforts to stem the flow of communication between the Islamic State, its supporters and a wider global audience, the vast, murky nature of cyberspace interwoven with the Islamic States ability to evade detection and to migrate between platforms have allowed the group to continue operating in the digital sphere and to continue actively communicating in order to work towards their broader aims.

Following this analysis it is clear that contemporary use of the digital sphere as a tool of communication by groups such as the Islamic State represent both an extension of activities which once existed solely offline and a new form of violent extremist outreach which renders the constraints of space and time ineffective in stemming interpersonal communication between violent extremists around the globe (Greenberg 2016). Whilst a plethora of Jihadi movements have sought to exploit the digital sphere as a vehicle for communication, this analysis clearly demonstrates that the Islamic State has employed cyberspace in order to achieve this goal with a unique prowess, connecting the digital caliphate with a global audience (Hossain 2018). Whilst the opportunities afforded by these digital channels of communication are not limited to the scope of this discussion, it is clear that the use of cyberspace as a communicative tool has allowed the Islamic State to achieve a number of goals ranging from cultivating a sense of legitimate statehood to cultivating virtual communities wherein ideological sympathisers may communicate and foster a sense of belonging to a wider extremist community (Haykel 2016). Furthermore, it is imperative to note that whilst a vast spectrum of actors have attempted to stifle the Islamic State's ability to communicate online, the nuanced and intricate nature of the internet interwoven with the nuances of extremist communication have rendered this task extremely difficult and failed to sufficiently suppress the ability of the Islamic State to utilise cyberspace to further its goals (Ganesh and Bright 2020). Consequently, it is evident that cyberspace offers a bespoke space wherein communication may be utilised as a tool to further the goals of the Islamic State in regards to legitimacy, cultivating community and offering anonymity to those seeking to further the groups overarching goals.

Chapter 2: Critically Examining the Islamic State's Use of Cyberspace as a Tool of Propaganda Dissemination

Proceeding to expand on the scope of this study's understanding of the complex relationship between the Islamic State and the digital sphere, this chapter will seek to critically analyse the ways in which the Islamic State has sought to utilise cyberspace as a tool of propaganda dissemination in order to achieve their overarching goals. It is imperative to analyse this element of the Islamic State's online presence when seeking to comprehensively understand the links between the Islamic State, the groups wider goals and the digital landscape, particularly as research has asserted that the Islamic State's exponential growth on the international terrorist stage has been fuelled by an adept use of virtual propaganda ranging from videos to magazines, allowing the group to fulfil a number of key functions in pursuit of broader aims (Haykel 2016).

Before advancing to examine the content of Islamic State's online propaganda and the plethora of ways in which a vast spectrum of propaganda has been used as a vehicle to advance the group's goals, it is critical to outline the groups use of cyberspace as a tool of propaganda dissemination as this has demonstrated the unique opportunities cyberspace offers terrorist entities within the field of propaganda. For example, evidence suggests that whilst Jihadi groups such as Al-Qaeda have sought to exploit the internet as a tool of propaganda dissemination, Islamic State has demonstrated a unique prowess in its ability to exploit these spaces as a tool to create, promote and disseminate propaganda among a global audience (Macnair and Frank 2017). This assertion is reinforced by broader research examining the Islamic State's use of propaganda which has argued that the inherent immediacy, reach and flexibility of online spaces have created fertile ground for the Islamic State to disperse propaganda across a plethora of platforms in order to engage with a global audience quickly, directly and more effectively than was possible in the past (Smith et al 2015). However, despite the Islamic State's virtual aptitude and skill at employing virtual propaganda to achieve their broader aims, it has been proposed that both academics and policy makers have failed to adequately comprehend the motivations which underpin this nuanced phenomenon, rendering it fertile ground for academic investigation when seeking to examine the relationship between the Islamic State and the digital sphere (Fahmy 2019).

Terrorising the Enemy

When seeking to examine the content of the Islamic State's virtual propaganda, it is first critical to examine the use of propaganda as a tool to spread fear and sow seeds of terror amongst the groups enemies, particularly as research has argued that this has formed a key element of the Islamic State's propaganda strategy online (Milton 2018). For example, examining the vast depths of Islamic State propaganda which have flooded cyberspace, it is evident that the content Islamic State has distributed online includes a range of brutal imagery ranging from beheadings and carefully choreographed mass-executions to victims being burned alive or run over by vehicles (Friis 2017). Research has proceeded to argue that within Islamic State's virtual propaganda the group has openly engaged in a doctrine of total war with no restraints, striking fear into enemies through spectacles such as stoning and pushing victims from the top of buildings (Kumar 2018). Kumar (2018) proceeds to assert that this use of barbarity is used both as a tool to strike fear into enemies whilst simultaneously cultivating support amongst Jihadi sympathisers online through the enforcement of regressive punishments intended to emulate historic Islamic practices in order to appeal to a hardline element within the global Islamic community. Kumar (2018) has proceeded to argue that this highlights the ability of the Islamic State to exploit both the opportunities afforded by the digital age and the support it may cultivate by restoring the use of extremely violent punishments, demonstrating the Islamic State's unique and nuanced position as a terrorist entity which both capitalises on the digital era whilst simultaneously rooting its ideology in medieval barbarity, rendering this unique blend of technology and ideology fertile ground for analysis.

Exploring the motivations which underpin the extreme levels of violence employed and glorified within Islamic State propaganda, research has argued that the use of such severe levels of violence are not merely spontaneous but rather strategically employed in order to frighten enemies and cultivate a feeling of fear amongst those opposed to the group (Kadivar 2021). This notion that the dissemination online of propaganda which encompasses brutality and violence is part of a wider strategy may be directly interwoven with the key theory of the propaganda of the deed which suggests that violence is merely utilised as a tool by terrorist entities such as Islamic State to attract attention and publicity to the groups activities, goals and wider ideology (Milton 2018). The notion that the Islamic State's use of violence is underpinned by more nuanced objectives is further anchored by wider literature which has asserted that Islamic State

propaganda is a critical component of the 'theatre of terror, wherein the group has utilised mass-mediated acts of destruction and violence disseminated across digital spaces as a tool to demonstrate the groups power, nurture a sense of fear among the groups enemies and to create a transnational sense of outrage among the groups opponents which fuel the groups ability to retain media attention and publicity (Smith et al 2015). It is important to note however that whilst the brutality employed by the Islamic State has been suggested by some to mark a turning point in the behaviour of terrorist entities, academics have suggested that this level of violence is not new to terrorism, rather the distinction between the Islamic State and past terrorist groups is the extent to which IS has effectively utilised this violence, creating global spectacles of bloodshed disseminated online which serve a range of purposes from frightening foes to inspiring allegiance amongst sympathisers (Friis 2017).

Expanding on this analysis of the use of violence within Islamic State's digital propaganda, it is critical to note there is broader support to anchor this notion that whilst Jihadi groups have historically employed violence as a tool to spread their message, the Islamic State's use of violence within propaganda and the 'spectacle of death' have heralded a watershed moment in the relationship between terrorism and brutality in propaganda (Kraidy 2017). In particular, research has proposed that Islamic State has been exceptionally effective in conveying themes of power projection and violence interwoven with theology, allowing the group to simultaneously bolster their image amongst an ideologically aligned audience whilst also threatening and targeting the groups enemies (Yarchi 2019). This assertion that the Islamic State's use of violence within propaganda has been blended with key theological texts is supported by empirical research which has posited that Islamic State propaganda online frequently cites key Islamic verses alongside images of violence and savagery in order to draw links between the groups actions and Jihadi ideology, strengthening the groups position among ideological sympathisers whilst simultaneously seeking to terrorise opponents and sew the seeds of division between Muslims and non-Muslims around the globe (Spier 2018). The notion that Islamic State propaganda online carefully orchestrates violence and theology in parallel as tools to invoke fear amongst a global audience is further anchored by closer examination of Islamic State propaganda materials, particularly as research has argued that these virtual materials often use carefully selected Islamic verses alongside violence as a vehicle to threaten the groups enemies with the seizure of their land, wealth and relentless bloodshed (Spier 2018). The assertion that the Islamic State has capitalised on the power of violence within their virtual propaganda campaign is particularly highlighted by the groups

focus on transnational messaging, for instance research has argued that Islamic State execution videos have placed particular focus on conveying threatening messaging to the west, using hostage execution videos as a tool to invoke fear and perpetuate the groups narrative that opposition to the groups overarching goals, particularly by western intervention, will be met with unconstrained retaliation (Herfroy-Mischler and Barr 2018). Building on this perception of narrative directed at the groups enemies, Herfroy-Mischler and Barr (2018) have proceeded to empirically analyse a plethora of Islamic State execution video's, noting that the choreography of these video's strategically employs symbolic messaging such as placing prisoners in orange jumpsuits and replicating imagery associated with conventional prison apparatus, both as a tool to link back to the controversial detention of Jihadi detainees and subsequently to infer that the Islamic State's actions are a legitimate response to Western oppression.

However, it is important to note within this discussion that empirical evidence suggests that the impact of such extreme violence within Islamic State's digital propaganda may have a more nuanced impact, for example it has been asserted that the use of brutality, particularly against other Muslims may serve to reduce the levels of online support for the Islamic State amongst some elements of their audience (Ceron et al 2019), demonstrating the delicate balance the groups propaganda must strike in order to maintain and foster broad appeal. This assertion is supported by wider research which has argued that the use of violence within Islamic State propaganda is part of a fragile balance the group must strike in order to cultivate broad appeal and to successfully foster allegiance among ideological sympathisers, suggesting that the group actively counterbalances these graphic materials with more mundane and non-violent propaganda in order to maintain its position and to engage with a broad audience effectively (Kadivar 2021).

Inspiration of Followers

Furthermore, as well as the use of virtual propaganda as an instrument to provoke fear among the groups enemies, the Islamic State has also utilised its digital content as a tool to carefully craft a strong identity online, interweaving the physical caliphate with a cyber caliphate, around which supporters may rally (Bandopadhyaya 2019). For example, whilst Islamic State propaganda online encompasses a vast body of content, ranging from graphic executions to images of children playing and social welfare, the group has curated a powerful brand, ensuring that the group's flag, logo, leader and identity are recurring themes throughout the range of virtual content disseminated, allowing ideological sympathisers to attach themselves to a clear entity, garnering support and refining the groups messaging (Bandopadhyaya 2019). This assertion that a clear identity refined within the realms of propaganda is imperative to the groups success is further anchored by empirical studies which have argued that people are more likely to relocate to territory where they can live with those who share their political, religious and ethnic identity (Revkin 2020). In addition to this, it has been proposed in recent years that the contemporary wave of Jihadi ideologues emerging are typically European-born, disaffected youths who lack a clear identity within their own societies, therefore the Islamic State's provision of a clear identity and community offer these marginalised actors a clear motivation to join the group, demonstrating the clear link between virtual propaganda and an ability to cultivate a transnational support base (Sunde et al 2020).

Building on Bandopadhyaya's (2019) assertion that the dissemination of virtual propaganda has been utilised to nurture the aspirations of Islamic State's ideological sympathisers online, empirical research has suggested that the content of Islamic State's online materials directly encourages supporters to actively engage in activities which will strengthen the group, ranging from migration to fundraising, particularly by disseminating a vast body of materials ranging from interviews with western fighters to more mundane activities such as community outreach initiatives within Islamic State territory in order to appeal to a broad virtual audience and create a broad church of support motivated by the nuanced nature of Islamic State propaganda (Vergani and Bliuc 2018). Research has proceeded to argue that within Islamic State propaganda, in comparison with more established groups such as Al-Qaeda, notions of religious authority and religious purity are employed as tools to foster the groups sense of dominance above other Jihadi groups on the global stage, encouraging ideologically aligned users online to pivot towards the group and to inspire allegiance towards the Islamic State rather than the group's Jihadi competitors (Vergani and Bliuc 2018). In addition, when seeking to measure the extent to which this has been effective, research has argued that at its peak Islamic State counted 80,000 foreign fighters from 80 countries among its ranks, demonstrating the groups unique ability to utilise propaganda online, particularly propaganda which focused on religious messaging to lure in a receptive transnational Jihadi audience (Martin and Solomon 2017).

For example, expanding on this notion that Islamic State propaganda sought to construct some form of religious and moral authority in order to anchor its actions, scholars have proposed that the Islamic State sought to blend its more gruesome materials with content which included images of the civilian victims and destruction attributed to coalition airstrikes, inferring that the Islamic State was both seeking to terrorise enemies whilst simultaneously weaving a picture of the group as a victim of a western aggression against Muslim populations and lands (Fahmy 2019). The notion that the Islamic State has used the digital sphere as a space to disseminate false narratives in order to foster a sense of belonging and allegiance amongst ideological sympathisers is also demonstrated within the creation of the Amaq News Agency, a digital news outlet assembled by the Islamic State to perpetuate the groups narrative amongst its digital audience, particularly in order to foster a sense of community cohesion and ideological allegiance amongst a global Jihadi population (Milton 2020). Consequently, studies have claimed that these narratives, often laced with deception and manipulation of the truth on the ground, disseminated within the Islamic State's virtual propaganda have been utilised as a vehicle to both muster support amongst a vast digital web of global sympathisers and to counter the narrative perpetuated by the groups enemies, diluting the perception of the groups own brutality amongst its supporters by re-framing the narrative as a battle between a pure, religious and moral Islamic State against a perceived aggressive, dominant western entity (Milton 2020). Scholars have asserted that this deliberate distinction between the Islamic State and the outside world conveyed within digital propaganda is a key pillar of a process of 'othering', wherein the Islamic State has sought to construct those outside the group's collective identity as a threat to Islam, encouraging ideologically aligned users online to adhere more stringently to the group's wider ideology and to engage more actively with the groups activities to counter the perceived threat from those who seek to counter the growth of the Islamic State (Kadivar 2021).

Migration & Legitimacy

In addition to the use of propaganda as a tool to both terrorise the Islamic State's enemies and cultivate support amongst ideological sympathisers, research has also asserted that an intricate web of technically skilled operators within the group have employed propaganda as an apparatus to entice ideologically aligned actors across the globe to travel to the groups territories, particularly at the height of their territorial strength in Iraq and Syria (Macnair and Frank 2017). The notion that virtual propaganda has been utilised as a tool to attract migration to territory controlled by Islamic State is anchored by empirical research which has argued that

the Islamic State has carefully crafted a broad range of propaganda disseminated online intended to encourage not only fighters but also women, children and men with a variety of backgrounds ranging from doctors to engineers to migrate to Islamic State territory in order to contribute towards the creation of a functioning, legitimate Islamic caliphate (Tezcur and Besaw 2017). Furthermore, Yarchi (2019) has proceeded to examine the content of Islamic State's virtual propaganda in more detail, finding that the establishment of an Islamic caliphate, calls for Muslims to join the group and an emphasis on the quality of life of those under the groups control were all emphasised in a concerted effort to both recruit members and invoke legitimacy. The importance of utilising digital propaganda as a tool to invoke legitimacy and encourage migration to territory controlled by the Islamic State should not be understated, for instance it has been asserted that in order for the Islamic State to sufficiently manage land and an active population, the group has had to balance the terror inflicted upon its enemies with a focus on human capital and key actors who can ensure the smooth operation of resources such as healthcare, food and infrastructure in order to cultivate loyalty, order and adherence to the groups ideology amongst both its core members and the wider population (Revkin 2020).

Empirical evidence examining the propaganda produced by the Islamic State has noted that within a vast body of Islamic State virtual literature, the assertion that it is the duty of every Sunni Muslim to migrate to Islamic State territory, interwoven with content perpetuating the narrative that there is an ongoing holy struggle between Islam and the west is persistently utilised in order to cultivate a notion among ideological sympathisers that migration is a key component of the caliphate's success (Tezcur and Besaw 2017). The argument that the Islamic State has carefully constructed virtual propaganda, intertwining the call for supporters to migrate with Islamic theology is evident throughout a wide body of Islamic State content, for example research examining the content produced by Islamic State has noted that the groups online magazines Dabiq and Rumiyah which have repeatedly called for ideological sympathisers to flock to the Islamic State are named after key cities in Islamic prophecy which signal the re-emergence of an Islamic caliphate, consequently inferring that by engaging with this content and migrating to Islamic State territory, supporters will be integral in the construction, strength and success of a legitimate Islamic caliphate (Bandopadhyaya 2019). Furthermore, research has argued that Islamic State's use of theology interwoven with themes of violence have been critical in perpetuating the groups narrative that Islamic State supporters are central to a forthcoming apocalyptic battle between Islam and the West, utilising the notion

of a holy war as a tool to mobilise support and invoke the belief that the Islamic State is a legitimate actor in this divine context (Martin and Solomon 2017).

When seeking to examine the complex relationship between virtual Islamic State propaganda and the group's attempts to sow the seeds of legitimacy regarding the establishment of an Islamic State, it is also critical to note that Islamic State's digital propaganda apparatus has consistently employed materials ranging from the destruction of historical artefacts to the defacing of ancient monuments as a tool to eradicate the complex, rich history of territory under the groups control and invoke a notion that a new age has dawned with the establishment of an Islamic state (Shahab and Isakhan 2018). Research has consequently argued that this organised destruction is a key element of the groups desire to craft a sense of collective identity amongst its followers, erasing historical identities within the territory under its control and seeking to legitimise the Islamic State as a legitimate state, unified under one cultural, political and religious identity (Shahab and Isakhan 2018). Consequentially, this analysis clearly demonstrates that the use of propaganda within the digital landscape has been employed not solely as a tool to terrorise enemies or inspire support but has been employed as a vassal within which the group has sought to carefully cultivate an orchestrated perception that the Islamic State is not solely a terrorist entity but rather a legitimate, functioning state (Ubayasiri 2019). Proceeding this analysis of the ways in which Islamic State propaganda has been employed to encourage ideological sympathisers to migrate to territory controlled by the group, it is clear that this element of digital propaganda forms a key pillar of the overarching strategy to foster a broader sense of legitimacy surrounding the notion of an established Islamic caliphate (Al-Rawi 2019). Al-Rawi (2019) has proceeded to claim that by producing online propaganda which directly seeks to nurture the ambitions of Islamic State supporters to travel to IS territory, the Islamic State is using virtual propaganda as a tool to enhance its own nation-state building efforts, cultivating its population and support base with an influx of global supporters and conveying a global image of a functioning, legitimate state.

Following this examination of the nuanced relationship between the Islamic State, propaganda and the digital sphere, it is clear that the evolution of the internet has offered Islamic State a space to disseminate propaganda more quickly and easily with a global audience, facilitating the group's reach, effectiveness and prowess within the global stage (Rieger et al 2019). It is clear that this use of virtual propaganda has become a multi-faceted tool which has allowed the Islamic State to facilitate a number of its wider goals, for instance the consistent use of extreme violence has served to strike fear into the minds of those opposed to the Islamic State, cultivate support among the groups transnational support base and simultaneously legitimise the groups actions as a legitimate reaction to Western foreign policy (Herfroy-Mischler and Barr 2018). Furthermore, this analysis clearly demonstrates that Islamic State propaganda online has become a key pillar of the groups strategy to unite a transnational target audience, allowing those within the physical territory occupied by the Islamic State and the groups global network of cyber supports to unite under a single banner, offering supporters a clear identity and established entity to which they may attach their support (Bandopadhyaya 2019). In addition, it is also evident within this analysis that the digital landscape has allowed Islamic State to employ the dissemination of propaganda as a tool to legitimise the self-declared caliphate, particularly using a plethora of material to denounce and destroy pre-existing identities in order to cultivate a single, unified entity and the perception of a legitimate, functioning state (Ubayasiri 2019). Consequentially, research has asserted that this construction of a pseudostate and distinct identity associated with allegiance to the Islamic State has been key both in allowing the group to distinguish itself from competing Jihadist movements and attracting transnational support, demonstrating the inherent benefits the group has benefited from as a direct result of this notion of nationhood and legitimacy (Martin and Solomon 2017). Consequentially, following this analysis it is clear that virtual propaganda has become a key tool within the framework of the Islamic State and its wider goals, allowing the group to expand, seek legitimacy and perpetuate narratives across a global landscape with far greater ease than was possible in the pre-digital age.

Chapter 3: Critically Examining the Islamic State's Use of Cyberspace as a Tool of Recruitment

Following this analysis of the nuanced links between the internet, virtual propaganda and the Islamic State's broader aims, this analysis will seek to critically analyse the ways in which cyberspace has been utilised by the Islamic State as a tool to facilitate recruitment and to encourage acts of violence amongst the groups global digital audience. This chapter will consequently seek to acknowledge that whilst definitive links are difficult to establish, within recent years a number of actors who have committed acts of violence under the name of the Islamic State have engaged with the group online, drawing tenuous links between the Islamic State, the digital sphere and those who proceed to commit acts of terrorism, meriting deeper academic investigation regarding this relationship (Hossain 2018). Research has argued that this analysis of the increasing focus on recruitment is critical following the fall of the Islamic State's physical caliphate, as the group undoubtedly seeks to focus more heavily on terror attacks abroad and ideological recruitment of sympathisers in order to ensure the groups ideological survival, rendering this a key element of contemporary analysis (Brzuszkiewicz 2018).

Hijrah to the Caliphate

Firstly, before proceeding to outline the ways in which the Islamic State has proceeded to utilise cyberspace as a recruitment tool following the collapse of the physical caliphate, it is first critical to acknowledge the role this space played within drawing supporters to migrate to the caliphate following its establishment in Iraq and Syria. It is critical to analyse the role of recruitment when seeking to critically examine contemporary terrorist entities, particularly as academics have suggested that terrorist organisations rely on a consistent growth in their support base, particularly active followers who are willing to commit acts of violent extremism or active support in order to survive and fulfil their wider goals (Neelamalar and Vivakaran 2019). This analysis is also crucial as research has argued that following the proclamation of the caliphate being established in 2014, the digital sphere was heavily utilised as a space to encourage ideological sympathisers to flock to the lands of Islamic State, as citizens, fighters and key participants in building a new nation (Cragin 2017).

Following the establishment of a territorial Caliphate, the Islamic State heavily utilised social media platforms such as Youtube, Twitter and Telegram as tools to encourage online sympathisers to migrate to the lands of Islamic State, drawing in tens of thousands of foreign fighters in particular from over 70 countries around the globe (Winkler et al 2019). Alongside the use of social media to inspire ideological sympathisers to migrate to the Islamic State, the digital landscape also became the beating heart of a transnational web of recruiters, part of the Islamic State's cyber Caliphate, who specifically facilitated the recruitment and subsequent travel of actors to lands controlled by the group (Vidino 2014). Anchoring the role of these two elements within Islamic State's recruitment strategy, studies have suggested that Islamic State has relied on its official propaganda and materials intertwined with the ability of its recruiters to permeate the digital sphere, combining the strengths of broad distribution with interpersonal communication as key tools to draw in ideological sympathisers to become citizens of the groups self-declared caliphate (Phillips and Ghalwash 2019). Scholars have suggested that this transnational flow of actors to Islamic State territory facilitated by cyberspace has been a key pillar of Islamic State's overarching strategy, particularly during the hight of the groups territorial gains as the influx of global sympathisers offered the group invaluable human capital which enabled Islamic State to grow, evolve and adapt their newly established caliphate more quickly and effectively (Braithwaite and Chu 2017).

Research has proceeded to suggest that the Islamic State's use of digital spaces to attract individuals to the Islamic State marked a significant divergence from past tactics employed by Jihadi organisations, as IS sought not only to attract male foreign fighters but also professionals and women, broadening the appeal and prospective audience of the group's efforts (Cragin 2017). The use of digital spaces as a vehicle to facilitate the active migration of non-traditional Jihadi actors such as women to Islamic State territory is further anchored by research which has argued that female engagement within the caliphate has broken the boundaries of traditional Jihadi extremism, allowing female actors to shift from passive support to active roles ranging from sniper training to suicide bombings and the enforcement of Islamic State's laws fulfilled by the notorious all-women Al-Khansaa brigade (Gielen 2018). In addition to this, Gielen (2018) has proceeded to suggest that the virtual sphere has created new bespoke spaces wherein Islamic State female supporters actively engage in recruitment campaigns targeting other women, inferring that interwoven with traditional recruitment strategies Islamic State has also exploited cyberspace as a tool to engage in innovative recruitment drives that focus on targeting specific demographics and elements of the global population.

Recruiting to Carry Out Attacks in the West

When seeking to examine the contemporary role of cyberspace within Islamic State recruitment, it is imperative to note that whilst the Islamic State has always advocated violence against foreign targets, following the fall of the caliphate's territories there has been a seismic shift wherein the group has increasingly encouraged supporters online to plan and launch attacks in their own countries (Brzuszkiewicz 2018). Exploring this orchestrated pivot towards a focus lone actor terrorism planned and executed on home soil, research has argued that in the UK policy makers and security agencies have become acutely aware of this shift, provoking a more concerted focus on tackling the threat posed by lone actors who have engaged with extremist content and terrorist actors online (Peddell et al 2016).

It is clear that this increasing concern amongst policy-makers is firmly rooted in the Islamic State's conscious shift towards a focus on lone actor terrorism, particularly as studies have indicated that the groups territorial losses have run in parallel with an increasing focus on online activity encouraging low-level attacks and a distinct emphasis on the importance of 'lone Jihad' (Ceron et al 2019). The role of the internet in facilitating the recruitment of lone western recruits has consequently become a key pillar of the Islamic State's recruitment strategy in recent years, with research asserting that the impact of online engagement may now outweigh person-to-person recruitment as the most significant driver in attracting lone actors to engage in acts of violent extremism, demonstrating the key and evolving role this form of communication may play in inspiring lone actor extremists aligned with the Islamic State (Greenberg 2016). Research has proceeded to argue that this focus by the Islamic State on virtual communications which inspire lone actor violence are indicative of a 'new terrorism' wherein formal hierarchies are obsolete and is rather rooted in social networks that perpetuate ideology through the digital landscape (Hollewell and Longpre 2021). Hollewell and Longpre (2021) have subsequently suggested that the internet has become fertile ground for the Islamic State to encourage the process of self-radicalisation, creating echo chambers and disseminating narratives which encourage western actors to plot and execute acts of terrorism within their own countries. Scholars have proceeded to note that virtual calls to violence have sent ripples across the global landscape culminating in a number of high-profile lone actor terror attacks, particularly in Europe and North America, demonstrating a tenuous correlation between the evolution of extremist messaging online and the motivations which underpin contemporary

lone actor terrorism (Brighi 2015). In addition, this correlation is directly applicable within the context of Islamic State, particularly as empirical research has identified a link between the countries explicitly outlined as targets within Islamic State's virtual propaganda and the rise of Islamic State inspired lone actor terrorism within those nations, inferring there may be a direct relationship between the consumption propaganda online and the target selection of lone actor terrorists who adhere to the groups wider ideology (Cremin and Popescu 2021).

Examining the ways in which the internet has explicitly been used as a vehicle to further the goal of recruitment and lone actor inspiration it has been asserted that the internet has allowed groups such as Islamic State a plethora of opportunities to engage and encourage lone actors to commit acts of violent extremism whilst simultaneously providing these actors easier access to materials which offer new skills instructions on key methods such as bomb-making, creating new provisions to both engage in extremist ideology and actively prepare for violent extremist actions (Argomaniz 2014).Building on the assertion by Argomaniz (2014) that the internet has not only facilitated the recruitment of lone actors but provided direction in preparing acts of violent extremism, academics have argued that extremist entities such as Islamic State have increasingly utilised cyberspace as a platform to disseminate lists of key targets, practical advice on the use of lethal weaponry and the opportunity to acquire new skills which assist lone actors in conducting successful attacks (Pitcavage 2015). It is clear that Islamic State has made effective use of the internet as a tool to facilitate and offer resources to lone actors, this is demonstrated by a wide body of evidence which has examined the plethora of ways in which Islamic State has used the internet as a space to offer lone actors direction, skills and inspiration before they have proceeded to commit acts of terror under the banner of the Islamic State (Cremin and Popescu 2021).

Furthermore, it is important to note that the dissemination of Islamic State propaganda online has served as an effective mobilising tool, stirring ideological dissent amongst a vast pool of disenfranchised Muslim actors, particularly in Europe and North America who then proceed to both engage with more extreme virtual content and to commit acts of lone actor extremism (Stern 2016). Research has proceeded to propose that upon examination, evidence suggests that a vast swathe of Islamic State recruiters and propaganda online have been tailored towards this audience, making reference to specific socio-political developments in a number of nations, particularly in the west in order to inspire transnational supporters to take up arms and engage in acts of violence in support of the Islamic State (Macnair and Frank 2017). Research infers

that this tailored approach by Islamic State, which has perpetuated narratives of brotherhood, comradery and collective identity across the digital sphere have consequentially been effective in stirring segments of western populations to engage with and plot acts of individual terrorism, particularly actors who are embedded in western society yet feel a deeply engrained sense of disillusionment, discrimination or deprivation within the societies in which they live (Ozer et al 2020). Furthermore, Ozer et al (2020) have therefore suggested that this internal disenchantment with society interwoven with access to echo chambers and group dynamics which encourage violent extremism, particularly online, have allowed groups such as Islamic State to carefully cultivate a transnational web of supporters who are actively committed to engaging in acts of violent extremism as a way of demonstrating their commitment to their cause and solidifying their place within a wider collective of actors.

Role of communication in recruitment

Expanding on this, in addition to the role of Islamic State materials disseminated online which both encourage and inspire acts of violent extremism, it is also important to note that the Islamic State has carefully crafted a virtual web of supporters and recruiters who actively encourage ideological sympathisers to both join the group and commit acts of violence across the globe (Brzuszkiewicz 2020). Brzuszkiewicz (2020) has proceeded to argue that this reflects the more nuanced reality of individual radicalisation, demonstrating that whilst lone actors may proceed to commit acts of violent extremism individually, this is usually the product of a more widespread and orchestrated effort by extremist networks to cultivate and encourage ideological sympathisers from passive support to active participation.

Expanding on this link between virtual communities and actors who proceed to engage in violent extremism on behalf of the Islamic State, research has consequently outlined the increasing role of social media, arguing that platforms such as Twitter and Facebook have become fertile ground for extremist ideologues to engage with other actors, disseminating Jihadi ideology and to create echo chambers wherein violent extremism is gradually both normalised and actively encouraged (Neelamalar and Vivakaran 2019). Research has inferred that this use of digital spaces is critically important in nurturing the ideology of lone actors who proceed to engage in acts of violent extremist, particularly as scholars have suggested that social networks and interactions with like-minded individuals are key components in the radicalisation process (Turner et al 2021).Turner et al (2021) consequentially argue that whilst

radicalisation remains a complex and nuanced phenomenon, evidence increasingly suggests that lone-actor radicalisation does not occur in isolation but rather is profoundly influenced by extremist communities who reinforce and strengthen lone-actors extremist ideology, including within the digital sphere. Therefore, it is clear that upon initial examination, evidence implies that group dynamics facilitated by cyberspace have increasingly allowed groups such as Islamic State bespoke opportunities to communicate with lone-actors around the globe, cultivating a transnational web of actors who espouse and reinforce extremist ideology, driving lone-actors to commit acts of terrorism.

When seeking to explore the motivations which underpin this relationship between lone actors online and digital extremist communities, it is also important to note that empirical research has suggested those who gravitate towards violent extremist ideology are typically members of society who feel isolated, marginalised, discriminated against or who lack a clear social identity (Rousseau et al 2021). Rousseau et al (2021) have proceeded to argue that this link between a lack of social identity and the process of virtual radicalisation is key as those who engage with violent extremist ideology may be driven by an overarching desire to belong to a wider community, demonstrating the opportunity that virtual spaces which promote violent extremism offer groups such as Islamic State, especially as a tool to recruit disenchanted actors seeking a cause to attach themselves to. The concept that digital spaces have offered groups such as Islamic State bespoke new opportunities to recruit ideological sympathisers is echoed within wider literature, for instance it has been argued that Jihadi ideologues particularly place an emphasis on group dynamics and that direct interaction with a wider Jihadi audience may directly contribute towards the shift from passive support to active engagement with violence and increasingly extreme ideology (Smith et al 2019). Focusing on the ways in which Islamic State specifically has utilised the opportunities afforded by cyberspace as a tool of community interaction in order to facilitate recruitment, Smith et al (2019) have examined the groups digital actions more explicitly, finding that the Islamic State made direct use of cyber platforms as a way to nurture extremist ideology and encourage violence by cultivating group discussions which reinforced the groups identity, deepened the polarisation between supporters and opponents and directly encouraged lone actors to commit violence on behalf of the wider group.

Building upon this notion that the Islamic State has capitalised on the inherent ability of the internet as a space which transcends space and time as a tool to recruit ideologically vulnerable users online, research has argued that Islamic State has specifically perpetuated narratives in

both virtual propaganda and through recruiters online which infer that Islam is under threat, seeking to drive ideologically aligned users to more active participation through the perceived threat to the collective community (Baugut and Neumann 2019). Scholars have asserted that these narratives range in their explicitly, with some softer forms of virtual communication seeking to simply promote adherence to the goals of the caliphate, whilst more violent propaganda seeks to encourage lone actors to enact acts of revenge against perceived enemies, inspiring acts of lone actor terrorism (Baugut and Neumann 2019). Anchoring Baugut and Neumann's (2019) analysis of the intricate relationship between cyberspace, collective identity and violent extremism, empirical research has proceeded to suggest that lone actor terrorist actions are often perpetrated by individuals who feel an acute lack of identity within mainstream society, leading them to seek comradery and companionship amongst virtual terrorist networks, consequently underpinning their motivations to launch attacks against perceived threats to this community (Ahearn et al 2020). Consequentially, it is clear that the increasing vulnerability of disenfranchised actors online to extremist messaging, coupled with the Islamic State's focus on notions of collective identity intertwined with existential threat have been utilised as a vehicle to encourage both a shift from passive support to active participation and more critically to inspire acts of violence (Ahearn et al 2020).

However, whilst it is clear that the dawn of the digital age has offered groups such as Islamic State new opportunities to engage with ideological sympathisers in order to recruit new members and inspire acts of violent extremism, research has proposed that this online engagement has not fully replaced offline interaction and that digital engagement alone cannot be definitively attributed to the process of individual radicalisation (Argomaniz 2014). In addition to this, research has proposed that the study of Jihadi radicalisation has remained a chronically under-researched and misunderstood element of terrorism studies, creating contention and diluting clarity within the academic field, rendering any links drawn between the digital age and radicalisation inherently open to critique (Silke 2008). Silke (2008) has proceeded to argue that this fundamental lack of focus on the process of Jihadi radicalisation has created, suggesting instead that contemporary terrorist entities with access to cyberspace are not breaking boundaries but rather building on existing strategies employed by terrorist entities throughout history. Therefore, these critiques suggest that whilst this analysis has sought to critically explore the complex relationship between the Islamic State, cyberspace and

recruitment, the distinct lack of definitive knowledge regarding the radicalisation process inherently weakens the strength of this analysis.

Furthermore, interwoven with the fragility of the link between online engagement and the motivations which underpin engagement with violent extremism, research has also suggested that the process of radicalisation remains both chronically under-researched and insufficiently understood, rendering any analysis of the factors which drive actors to engage in violent extremism inherently constrained (Heath-Kelly 2012). This emphasis on the nuanced nature of radicalisation is echoed by wider academic research, for example Cherney et al (2021) have built upon this critique, arguing that definitive identification of the key motivations and factors which induce individual radicalisation to violent extremism both online and offline remain elusive, suggesting that the radicalisation process is inherently individual and consequently analysing the process of radicalisation, particularly online is a field littered with intrinsic inconsistencies. Despite these reservations regarding the strength of the link between online engagement, consumption of virtual messaging and the decision to engage in violent extremism, empirical research has also demonstrated that a large proportion of western recruits consumed extremist content online before proceeding to engage with the Islamic State more actively (Ceron et al 2019). Consequentially, the lack of definitive knowledge regarding the relationship between the internet, radicalisation process and terrorist entities intertwined with the growing evidence that terrorist actors are actively consuming and engaging with virtual content preceding their actions suggests this analysis may lay the foundations for more refined exploration of this phenomenon in future studies.

Following this analysis of the relationship between the Islamic State, cyberspace and recruitment it is clear that a number of salient contributions may be drawn which contribute towards the overarching understanding of the Islamic State, cyberspace and its overarching goals. Firstly, it is clear following this discussion that following the emergence of Islamic State cyberspace offered a unique tool to draw a web of transnational supporters to the self-declared caliphate, allowing Islamic State to cultivate a foundation of support ranging from doctors to fighters who contributed to the successful growth and functioning of the groups territory in Iraq and Syria (Cragin 2017). It is also clear that whilst traditional Jihadi groups have placed an emphasis on recruiting male fighters, Islamic State's strategy has marked a distinct shift wherein men, women and families with a plethora of skills and attributes were encouraged to

join the groups ranks in order to bolster the groups broader military, societal and economic strength (Gielen 2018).

In addition to the use of cyberspace as a beacon to encourage migration to Islamic State territory, this analysis has also demonstrated the ways in which the digital sphere has become fertile ground for Islamic State to nurture actors who may proceed to commit acts of violence within their own countries around the globe, particularly following the dissolution of the Islamic State's physical caliphate (Brzuszkiewicz 2018). Furthermore, This focus on encouraging acts of terrorism has been effectively expanded within the digital sphere, creating spaces wherein actors are seduced and indoctrinated by extremist ideology before being actively directed by a web of virtual supporters to spaces where they may access materials which will facilitate them engaging in acts of lone terrorism (Argomaniz 2014). Within this analysis, it is also evident that cyberspace in particular has offered the Islamic State a unique opportunity to construct an intricate web of supporters, recruiters and violent extremist actors across the globe who may work across the traditional constraints of space and time in order to co-ordinate global spectacles of terror and to actively identify and target individuals who may feel disenchanted within their own societies, giving the group access to a vast well of actors who may be nurtured and cultivated to go on and commit acts of lone terrorism (Ahearn et al 2020).

However, it is important to note that whilst this analysis has offered strong evidence that the Islamic State has successfully utilised cyberspace as a recruitment tool in order to fulfil a number of key functions, the definitive link between virtual spaces and radicalisation remains nuanced. For instance there remains a critical lack of clarity within the academic sphere regarding the extent to which the factors which underpin radicalisation may be effectively identified and the broader understanding of radicalisation remains a highly contested phenomenon within terrorism studies (Cherney et al 2021). Consequentially, whilst this analysis has sought to demonstrate the ways in which the Islamic State has effectively utilised cyberspace as a tool of recruitment, it is clear that this element of the groups cyber-strategy merits deeper academic investigation.

Conclusion

Following this research, it is evident that a number of salient conclusions may be drawn which offer a critical insight into the ways in which cyberspace has facilitated Islamic State's ability to achieve their overarching goals. It is also imperative to acknowledge that whilst this study has specifically examined the nuanced relationship between Islamic State and the digital sphere, these findings may also contribute towards a broader understanding of the complex links between contemporary violent extremism and the internet, expanding on a chronically under-researched element of terrorism studies (Tracy 2012). Consequentially it is clear that whilst these findings explicitly examine the relationship between Islamic State, the groups goals and digital platforms, further research may use this study as a tool continue to build on these foundations by expanding to focus on a plethora of wider movements such as the farright, laying the foundations for a more comprehensive understanding of contemporary violent extremism within the digital age.

Upon examination of the key findings within this study, it is first clear that digital spaces have become a key instrument of communication between Islamic State, its supporters, its enemies and a wider global audience which transcends the traditional constraints of time and space (Lee et al 2021). This unique ability of cyberspace to diminish the impact of traditional limitations has arguably been key in empowering the groups communications, allowing Islamic State to bypass traditional gatekeepers of communication such as the media and engage directly with a transnational audience, particularly ideological adherents using a variety of messaging strategies (Yarchi 2019). This profound focus on global communication has become a key component of Islamic State's wider strategy, facilitating a number of core functions such as the group's campaign to cultivate legitimacy and to foster a wider sense of identity among the groups sympathisers rooted in a clearly defined notion that an authentic Islamic caliphate has been established (Milton 2018). The findings within this study clearly assert that this notion of legitimacy intertwined with identity is at the forefront of Islamic State's digital communications campaign, particularly as in parallel with this promotion of the self-declared caliphate, Islamic State has used cyberspace as a vehicle to encourage interpersonal communication among virtual communities of ideologically aligned violent extremists and sympathisers (Murthy 2021). It is clear from this research that these virtual echo chambers, intertwined with the anonymity afforded by digital platforms (Bhui and Ibrahim 2013), have

created spaces wherein Islamic State may sow the seeds of international insecurity, allowing the group to nurture extremist ideology, attract new ideological companions and encourage acts of violence amongst a global virtual audience (Ceron et al 2019). Consequentially, it is clear that this research clearly evidences the bespoke opportunities that cyberspace offers Islamic State within the realms of their overarching communication strategy, providing the group fertile digital land to cultivate legitimacy, support and collective identity.

In addition to the role of communication, following this analysis, it is also evident that whilst the Islamic State's physical foothold may have been significantly weakened, the groups messaging and narratives, encompassed within a plethora of propaganda, are strewn across digital platforms cultivating a continuous stream of support and drawing new followers to the groups ideology (Wignell et al 2018). The notion that the digital sphere has allowed a steady stream of Islamic State propaganda to trickle through numerous platforms is further echoed by key findings which suggest that Islamic State has consciously used the internet as a space to disseminate materials which seek to terrorise and instil fear within the groups enemies by showcasing uniquely gruesome violence, enhancing the spectacle of violence and its global reach (Friis 2017). This research has proceeded to demonstrate that this dissemination of violent propaganda provides tangible benefits within the framework of the groups wider objectives, allowing Islamic State to use digital spectacles of violence as an apparatus to sow the seeds of fear, muster support among violent elements within the groups support base and to garner global attention with creative and contentious acts of barbarity (Smith et al 2015).

Interwoven with the use of violent spectacles online, it is clear within the scope of this study that digital dissemination of propaganda has allowed Islamic State to carefully craft a variety of narratives which inspire a cross-section of Islamic State's support base, utilising images ranging from executions to children playing and images of welfare as tools to foster a wider sense of identity, legitimacy and support amongst the groups target audience (Bandopadhyaya 2019). Within this research it is clear that Islamic State's use of virtual propaganda to achieve these broader aims offers the groups tangible benefits particularly inspiring supporters to engage in activities which strengthen the group's position ranging from fundraising to migrating to Islamic State territory (Vergani and Bliuc 2018). Building on this, this analysis has also sought to outline the ways in which Islamic State's use of propaganda online has directly sought to distinguish the group from other competitors within the violent extremist world and encourage ideological sympathisers to actively migrate and participate in territories

seized by the Islamic State, particularly at the height of their territorial gains (Macnair and Frank 2017). This ability to draw actors from across the globe to join Islamic State has been a central pillar in the groups wider strategy, aiding Islamic State's goal of building a functioning proto-state whilst simultaneously fostering a wider sense of legitimacy (Revkin 2020).Upon closer examination, this begins to draw links between the use of communication and propaganda and propaganda online, demonstrating that whilst these elements of Islamic State's strategy are subject to inherent nuances, they are intertwined by an overarching set of goals such as cultivating legitimacy which lay at the core of the groups global ambitions. Therefore, as a result of this analysis, drawing on a plethora of literature it is clear that the dissemination of propaganda online has become a central pillar of the Islamic State's overarching strategy, allowing the group to present and legitimise its world view and values, fostering a broader sense of statehood and legitimacy (Wignell et al 2018).

Moreover, alongside the complex role of cyberspace in facilitating Islamic State's communication and ability to disseminate propaganda to a transnational audience, this research has sought to demonstrate the digital spheres evolving role in facilitating recruitment and inspiring acts of violent extremism. This shift is particularly critical as Islamic State has pivoted its focus towards nurturing both ideological adherence and inspiring lone acts of violent extremism, arguably as a means to retain the groups ideological survival and global significance following the collapse of the groups physical caliphate (Brzuszkiewicz 2018). For instance, examining the group's virtual strategy before the collapse of the caliphates physical foothold, this study has sought to illustrate the vital role which cyberspace has played, especially as a tool which has been utilised to attract ideological sympathisers from around the globe to join the groups territories as fighters, citizens and key actors who may help create a new, functioning state (Cragin 2017). This influx of human capital driven by virtual recruitment campaigns was arguably a core component of the Islamic State's overarching strategy, particularly as this mass-migration of ideological adherents offered the group unique opportunities to demonstrate a growing narrative of legitimacy, improve the function of the groups self-declared caliphate and to expand the groups strength and military prowess (Braithwaite and Chu 2017).

However, following the collapse of the group's physical caliphate, this study has demonstrated a notable shift towards inspiring lone actors within their own countries, particularly in the west, to prepare and engage in acts of violent extremism under the broader banner of the Islamic State (Brzuszkiewicz 2018). Upon analysis of this shift, it is evident within this research that Islamic State has utilised the digital landscape as a space to increasingly construct echo chambers and cultivate online spaces where actors may undertake the process of selfradicalisation whilst simultaneously engaging with extremist content which facilitates the radicalisation process and offers tangible inspiration for those seeking to engage in acts of violent extremism (Hollewell and Longpre 2021). Intertwined with this use of cyberspace as a tool to facilitate the process of radicalisation and inspiration, this study has offered strong evidence that Islamic State has carefully crafted online spaces which lone actors may use as tools to learn and resource, offering individuals the ability to prepare more effectively for lone acts of violent extremism whilst simultaneously nurturing the transition of these actors from passive supporters to active participants (Cremin and Popescu 2021). Whilst, this critical analysis of the relationship between recruitment, Islamic State and cyberspace has inferred intricate links between the digital landscape and Islamic State's recruitment efforts, it is also imperative to note that this discourse has proceeded to acknowledge the nuanced and tenuous links which underpin this relationship. For instance, whilst a plethora of evidence has been drawn upon which suggests a direct relationship between digital recruitment and lone actor extremism, it is important to outline that radicalisation remains a chronically under-researched and opaque phenomenon, rendering any definitive links between these entities difficult to conclude (Argomaniz 2014). Consequentially, whilst this analysis has sought to demonstrate the ways in which Islamic State's virtual recruitment strategy has sought to fulfil the groups wider goals such as fostering legitimacy and ensuring ideological survival, it is important to note that the processes explored in this analysis remain highly contested and therefore merit further investigation (Heath-Kelly 2012).

In conclusion, following this analysis it is clear that the internet has significantly contributed to Islamic State's ability to attain its overarching goals, facilitating Islamic State's exponential growth and evolution into a distinctly volatile and lethal terrorist entity (Chatterjee 2016). Drawing upon the findings of this research, it is evident that the digital sphere has been utilised as a key tool within the groups global strategy, particularly facilitating Islamic State's ability to cultivate notions of legitimacy, fostered interpersonal engagement between Islamic State actors, ideological sympathisers and a global audience whilst simultaneously sowing the seeds of transnational terrorism (Brzuszkiewicz 2018). Consequentially, these key functions interwoven with the ability of cyberspace to transcend traditional boundaries clearly evidence the bespoke opportunities cyberspace has offered Islamic State in pursuing their global

ambitions whilst also demonstrating more broadly the evolving role digital tools offer violent extremist entities within the modern landscape. It is important to note that whilst this study has sought to critically analyse the complex relationship between cyberspace and Islamic State, it may be subject to inherent constraints, for example the nuanced nature of the link between online activity and violent extremist actions and the lack of definitive knowledge regarding the radicalisation process (Argomaniz 2014). Consequentially, this underpinning academic contention offers clear areas of importance for future studies within the field of terrorism studies, inferring that to truly understand the role technology may play in contemporary terrorism, debates outdating this technology regarding key concepts must first be settled within the academic field. However, despite this ambiguity, it is clear from the plethora of evidence emerging that the digital landscape has and will continue to play a critical role in the overarching strategy of terrorist entities such as Islamic State, suggesting that this field of terrorism studies remains critical for those seeking to understand violent extremism within a contemporary context.

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