

Radicalisation in the Internet Age

*How the internet impacts the radicalisation Processes
of extreme-right terrorists in the Western World*

Guri Nordtorp Mølmen



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Guri Nordtorp Mølmen

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Abstract

The role played by the internet in processes of radicalisation is a pervasive subject in discussions of violent extremism, both in the circles of policymakers, researchers, and the media. While the fact that the internet *plays a role* is largely accepted as a truth, few studies have sought to examine how the *mechanisms* behind online-based radicalisation work.

The thesis asks to what extent and in what ways the internet and social media influenced the radicalisation process of extreme-right lone actors who have carried out or attempted to carry out large-scale terrorist attacks in Western democracies. Understanding radicalisation as a process, the focus on the analysis is on the underlying mechanisms with a potential to impact radicalisation on the internet. In the absence of a theoretical model of online radicalisation, I identified six mechanisms seen as particularly relevant for explaining the phenomenon of online radicalisation.

In order to investigate these mechanisms, I have chosen to combine comparative case study and process tracing. I analysed three cases of radicalisation into extreme-right terrorism where the internet was used, investigating the ways in which the internet impacted on the radicalisation trajectories of all three individuals. In the analysis, I demonstrate that the impact of the internet on radicalisation should neither be overstated nor understated; radicalisation is impacted by both offline and online mechanisms.

My findings show that the internet played a role in facilitating radicalisation through making extreme ideology and information accessible, as well as amplifying group polarisation and legitimising extreme ideology and political violence through echoing. However, it is not effective on its own. Offline aspects such as pre-existing vulnerabilities and isolation in the form of detachment from offline social milieus are found to be important, likely because they provide the locus for the individual to seek information and belonging in alternative online milieus where communication is voluntary, and they are in control.

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Table of Contents

1	Introduction.....	1
1.1	Research question	2
1.2	Research design	3
1.3	Key findings and implications	4
1.4	Disposition.....	5
2	Theoretical Framework	6
2.1	Key Concepts.....	6
2.1.1	The Internet	6
2.1.2	Terrorism.....	6
2.1.3	Lone actor terrorism	8
2.1.4	Radicalisation	9
2.2	Existing literature and theory	11
2.3	Mechanisms of online radicalisation	16
2.4	Pre-radicalisation phase	17
2.4.1	Compensation.....	17
2.4.2	Isolation.....	19
2.5	Radicalisation phase	21
2.5.1	Facilitation.....	21
2.5.2	Echoing (echo-chamber-effect).....	23
2.5.3	Acceleration	24
2.6	Operational phase	25
2.6.1	Action triggering	25
3	Research design and methodological framework	28
3.1	Case study.....	28
3.2	Case selection	29
3.2.1	Sample.....	30
3.3	Mechanisms, indicators and process tracing	34
3.3.1	Document analysis	37
3.4	Ethical considerations.....	39
4	Introduction to the cases	41
4.1.1	Peter Mangs.....	41
4.1.2	Anders Behring Breivik	41
4.1.3	Dylann Roof	42
5	Analysis.....	44

5.1	Compensation	44
5.1.1	Peter Mangs	44
5.1.2	Anders Behring Breivik	46
5.1.3	Dylann Roof	48
5.2	Isolation	49
5.2.1	Peter Mangs	49
5.2.2	Anders Behring Breivik	51
5.2.3	Dylann Roof	53
5.3	Facilitation	54
5.3.1	Peter Mangs	54
5.3.2	Dylann Roof	57
5.3.3	Anders Behring Breivik	58
5.3.4	Dylann Roof	60
5.4	Echoing	62
5.4.1	Peter Mangs	62
5.4.2	Anders Behring Breivik	64
5.5	Acceleration	65
5.5.1	Peter Mangs	65
5.5.2	Anders Behring Breivik	66
5.5.3	Dylann Roof	67
5.6	Action triggering	67
5.6.1	Peter Mangs	67
5.6.2	Anders Behring Breivik	68
5.6.3	Dylann Roof	69
6	Discussion of findings	70
6.1	Compensation	70
6.2	Isolation	72
6.3	Facilitation	75
6.4	Acceleration	76
6.5	Echoing	77
6.6	Action Triggering	78
6.7	Summary of findings	80
7	Conclusion	82
	References	85
	Attachments	100

1 Introduction

We live in a digital era. In the last three decades, the ubiquity of the internet and computer-mediated information has revolutionised the way we communicate and conduct business across the globe. With this, however, there has also emerged new opportunities for propagating violence.

Access to the internet has brought with it a capability for terrorists and extremists to communicate and spread their ideology outside of the sphere they would otherwise reach. Messages of intolerance and the dissemination of these, have all gravitated toward the online sphere. Since 1995, when the first extremist website was launched and until today, over 30,000 extremist websites, online forums, and social networks have emerged and are currently operating across the web (Klein, 2017, p. 3).

The accessibility of online radical or extreme sources has manifested itself in a fractured and volatile world and a long line of extremist atrocities (Aly, Macdonald, & Jarvis, 2016, p. 1), from the 2015 attack on African American churchgoers in Charleston, South Carolina, to the shooting targeting LGBTQ people at pulse nightclub in Orlando in 2016, to the 2011 attack targeting the Norwegian labour party in Oslo and its youth party at Utøya, Norway. Currently, lone actor terrorists are the most significant perpetrator of terrorist attacks in Western Europe (Ravndal, Lygren, Jupskås, & Bjørge, 2020). Despite differing in age, background and motivations, the internet remains a common thread that documents and unites their path (Klein, 2017, p. 2).

The phenomenon of internet-mediated radicalisation is increasingly referred to as *online radicalisation*, defined as “a process whereby individuals through their online interactions and exposures to various types of internet context, come to view violence as a legitimate method of solving social and political conflicts” (Bermingham, Conway, McInerney, O'Hare, & Smeaton, 2009).

The role played by the internet in the process of radicalisation is pervasive in discussions about violent extremism, both in the circles of policymakers, researchers, and the media (Whittaker, 2018, p. 1). While there is substantial disagreement about what role the internet might play in the process of radicalisation, the fact that the internet *plays a role* is largely accepted as a truth (Melegrou-Hitchens & Kaderbhai, 2017, p. 35). However, few studies have sought to examine

how the mechanisms behind online-based radicalisation work (Koehler, 2015, p. 116). This will be the focus of my thesis.

1.1 Research question

The research question for this thesis is based on some broad justifications:

Firstly, in terms of empirical foundation, existing knowledge in the field of radicalisation is largely based on the global jihad and the radicalisation of individuals into violent Islamism. Meanwhile, extreme-right political violence is an area that has received less focus in recent years. As such, an enduring issue is the tendency to aggregate knowledge, assuming that the processes and mechanisms found when researching one group (Islamist terrorism) also applies to a second group (extreme-right terrorism) (Gill, Corner, Thornton, & Conway, 2015, p. 6).

Secondly, the brunt of radicalisation research is focused on group-radicalisation processes, while less focus has been given to lone-actor processes. While lone actor terrorism has received widespread political and media attention in the last decade, scientific research has remained scarce. This is in part due to the relative rarity of these types of terrorist attacks, as well as their tendency to be less deadly than group-terrorism. Investigations into radicalisation and terrorism generally tend to emphasize the collective and organisational dimensions of the phenomenon, with a focus on the influence of charismatic leaders, recruitment efforts, training and indoctrination (Spaaij R. , 2010, p. 855). It is generally accepted that the same explanations of group terrorism and radicalisation cannot explain lone actor terrorism and radicalisation trajectories. There is thus a need for further research in the field of lone actor radicalisation.

Thirdly, existing research of online radicalisation largely fails to separate online and offline mechanisms of radicalisation. As a result, the research fails to illustrate the extent and nature of the internet's impact on processes of radicalisation, instead conflating it with other mechanisms of radicalisation.

All this considering, I seek to answer the following research question:

To what extent and in what ways has the internet and social media influenced the radicalisation process of extreme-right lone actors who have carried out or attempted to carry out large-scale terrorist attacks in Western democracies since 2000?

By large-scale terrorist attacks, I mean terrorist attacks that resulted in, or had the potential of resulting in, five or more deaths, and have received widespread media attention. The average

death toll in the sample collected in chapter 3.2.1 is five deaths. I define large scale terrorist attacks as attacks that had the potential to kill an above-average number of people.

Selecting cases well-covered by the media is necessary to ensure sufficient data is available to conduct a detailed process-tracing analysis with robust findings.

The thesis focuses on the radicalisation of extreme-right lone-actor terrorists reported to have been radicalised online prior to carrying out terrorist attacks. My intention is not to investigate *whether* the internet has impacted processes of radicalisation, but rather how important it was as part of a broader set of radicalisation processes, as well as *how* it has impacted such processes. My goal is to remedy some of the methodological and empirical gaps within this field of research through examining specific trajectories toward violent action on the individual level.

1.2 Research design

Understanding radicalisation as a process opens the door for examining underlying causal mechanisms that may fuel this process. Arguing that no existing theory or framework can fully illustrate all mechanisms with a potential impact on the process of online radicalisation, my theoretical framework draws widely on the literature of online radicalisation. From this literature, I have derived six mechanisms that in combination cover the processes relating to online radicalisation.

In order to investigate these mechanisms, I have chosen a comparative case study design using process tracing as my main method. The application of a small-n design allows an in-depth look at a single case or a group of cases. Through process tracing, one can trace the causal processes that link causes and outcomes together, while applying a comparative dimension helps uncover similarities, contrasts or patterns across cases (Mills, Eurepos, & Wiebe, 2010).

The strategy for the study is two-fold; first, I conducted a review of the central literature in the field of radicalisation studies, identifying mechanisms and observable implications that emerge as impactful on the process of online radicalisation. Second, I conduct a process tracing analysis on three cases to investigate the ways in which the internet impacted on the radicalisation trajectories of these individuals, thereby matching theory with empirical data.

This design ensures both analytical depth and width; it provides the informational depth necessary to carry out a process-tracing analysis, while at the same time remedying some of the

methodological shortcomings of a small-n design through widening the analytical scope to more than one case.

In terms of the scope of the thesis, some limitations have been necessary. Mainly, the analysis is limited to cases of radicalisation in the 21st century. The reasoning is the exponential growth that the internet has undergone in the last 20 years into the influential tool that it is today. More specifically, this time frame encompasses the development of “web 2.0”, which refers to the growth of the internet into platform emphasising user-generated content and the rapid growth of social media (Amble, 2012, p. 339).

1.3 Key findings and implications

Different mechanisms were found to be active in each case, and no single mechanism was fully active in all cases. Three mechanisms were at least partially active in all three cases: Isolation, ideological Facilitation and Echoing, suggesting that these mechanisms may be particularly relevant for illustrating *how* online radicalisation impacts on lone actor terrorism.

Isolation in the form of detachment from offline social milieus is likely important as it may provide the locus for the individual to seek out information and acceptance in alternative online milieus where the individual has more control over communication. Once online, the internet can play a role in facilitating radicalisation through ensuring ease of access of information, as well as amplifying group polarisation and legitimising extreme ideology and action through Echoing. I did not find sufficient empirical support to say that the internet has an accelerating effect on radicalisation, or that the internet by itself is an action trigger for individuals beginning the operational phase. When it comes to operational Facilitation, the presence of this seems to be reliant on the individual’s needs and situation.

Taken together, the findings suggest significant contextual complexity. No mechanism can be found to drive the radicalisation of individuals alone, and no case of radicalisation was found to have been impacted only by online mechanisms. In reality, online radicalisation involves real people whose trajectories cannot be considered without also considering the socialising settings that form their beliefs and inform their actions both within the online sphere and outside of it.

The findings in the study reinforce what is largely accepted in research on online radicalisation; online radicalisation is likely to also be impacted by offline push-factors that through their presence make online extremist messages more impactful. However, my findings did not

support the suggestion in the theory that face-to-face interaction was necessary for radicalisation to occur.

1.4 Disposition

The thesis consists of seven chapters. Chapter two introduces the theoretical framework wherein I examine the existing literature on terrorism, radicalisation and online radicalisation. The chapter details central mechanisms that I have selected for the analysis. In chapter three I outline the research design and methodological approach I have selected to conduct my analysis, including the comparative case study approach, the method for case selection, and the selection and analysis of sources. In chapter four I give a brief presentation of each of the chosen cases. Chapter five traces the different mechanisms in each case and present the analytical findings. Chapter six compares the findings between the cases. Lastly, chapter seven contains concluding remarks, and a discussion about the theoretical and practical implications of the findings.

2 Theoretical Framework

The theory chapter is divided into three sections; first I clarify my understanding of four concepts at the heart of my research question. Second, I examine the existing literature and theory about online radicalisation as a field of study, concluding that no existing theory provide a sufficient description of the phenomenon of online radicalisation, making it necessary to draw mechanisms from the wider radicalisation literature. In the third section, I introduce and operationalise six key mechanisms that are presented in the literature as likely drivers of radicalisation in the online sphere.

2.1 Key Concepts

2.1.1 The Internet

The internet, as it will be examined in this study, includes “all communication, activity or content which takes place or is held on the world wide web and cloud structures” (von Behr, Reding, Edwards, & Gribbon, 2013, p. 2).

In addition to social media or forum platforms comes other alternative platforms of communication, such as communication through online gaming. Modern gaming consoles are connected to the internet and have their own online networks that are normally used for online gaming and messaging. Users can communicate with other users both through these console networks, or directly through online games (Anderson, 2020, p. 10).

2.1.2 Terrorism

Defining terrorism is arguably one of the most ambiguous endeavours in terrorism studies, presenting any terrorism researcher with a veritable semantic minefield of overlapping efforts. Numerous institutional and scholarly attempts have been made to define the term, yet, no universally agreed upon definition has been found. One reason for this is the intrinsically negative connotations of the term, where political purposes are often behind its use. According to Hoffman: “[...] the decision to call someone or label some organization “terrorist” becomes almost unavoidably subjective, depending largely on whether one sympathizes with or opposes the person/group/cause concerned” (2006, p. 23).

The definitional difficulties can also be ascribed to the fact that the term overlaps with other types of political violence. Central discussions surround whether an attack can be defined as terrorism if the targets are military instead of civil, if the violence is conducted by a group or a

state, or if the perpetrator is an organised group or a lone actor. In the following, I examine several central concepts and discussions surrounding the conceptualisation of terrorism, before deciding the definition to be employed in this thesis.

Despite the difficulties connected to generating definitional consensus, there is nonetheless an emerging consensus around a few main characteristics. This thesis will employ Bruce Hoffman's definition of terrorism as a starting point. Hereunder, terrorism is defined as:

"[...] the deliberate creation and exploitation of fear through violence or the threat of violence in the pursuit of political change. All terrorist acts involve violence or the threat of violence. Terrorism is specifically designed to have far-reaching psychological effects beyond the immediate victim(s) or object of the terrorist attack" (2006, p. 40).

Central in this definition is the fact that it specifies terrorism as an inherently asymmetric threat. Terrorism uses means that "fall outside the forms of political struggle routinely operating within some current regime." with the goal to induce fear in a different or wider audience from the direct target of the violence (Tilly, 2004, p. 5). This separation of attack victim and target distinguishes terrorism from other forms of political violence such as genocide.

Secondly, concerning targets of terrorism, it is often specified that the violence must be directed towards civilians or non-combatants. This separates terrorism as a tactic from "guerrilla warfare" which is defined as "the deliberate use of violence against military and security personnel" (Sinai, 2008; Ganor, 2001).

Thirdly, a distinction is often drawn between politically motivated attacks conducted by *groups or individuals*, and those conducted by *state actors*. The contemporary understanding of terrorism largely describes a nonstate phenomenon. Hoffman, for example, draws a hard line between state-led violence and terrorism, arguing that only acts of political violence perpetrated by a "subnational group or nonstate entity" can be defined as terrorism (2006, p. 4).

In a similar vein, some have questioned whether lone actors can be defined as terrorists. The consensus seems to be that such a definitional delimitation fails to consider the many examples of acts of political violence conducted by individuals without affiliation with any terrorist groups. Schuurman et al. (2019) argue that most lone actor terrorists have ties to radical milieus in the online or offline sphere. These milieus are usually critical to lone actors' adoption and maintenance of motive and capability to commit acts of terrorism.

This is also reflected in the inclusion criteria for most terrorism databases; for example the Global Terrorism Database, the RTV dataset and the RAND Database of Worldwide Terrorism Incidents all delimit the data included in their databases to sub-group incidents conducted by organised groups, isolated dyads or individuals (Ravndal, 2016, p. 6; RAND Corporation; GTD, 2019, p. 10).

Thus, this thesis defines acts of terrorism as 1) an act of violence or threatened violence 2) with a political aim. The act is 3) targeting non-combatants and is 4) meant to induce fear in an audience that is different from the immediate target of the violence. Lastly, the act is perpetrated by a subnational group or nonstate entity that can either be an organised group or by unaffiliated individuals who draw ideological inspiration from groups or leaders; either isolated dyads or lone actors (Hoffman, 2006, p. 40).

2.1.3 Lone actor terrorism

Lone - actor terrorism is defined as “ [...] terrorist attacks carried out by persons who (a) operate individually, (b) do not belong to an organized terrorist group or network, and (c) whose *modi operandi* are conceived and directed by the individual without any direct outside command or hierarchy” (Spaaij R. , 2010, p. 856). The definition excludes cases of solo terrorism where an individual has been trained by the terrorist group but perpetrated an attack alone.

Some definitions of “lone actor terrorism” include small groups or isolated dyads in the category of lone actor terrorism. Others distinguish between lone actors who “maintain plot-relevant social ties” and “truly” lone actors whose radicalisation processes are defined by reclusiveness and a lack of relational connections, “often resulting from the actors’ social processes triggered and shaped by lone actors’ personalities and their often-poor social skills” (Schuurman, et al., 2019, p. 772). The lack of successful relational connections in offline life may lead these “truly” lone actors to seek out relations online that may have an impact on their radicalisation processes. The focus of this thesis will be on these “truly” lone actors. These are individuals whose radicalisation processes have not received much focus in the radicalisation literature. However, where the nature of the disembedded individuals may make radicalising mechanisms tied to the internet more impactful.

The thesis does *not* exclude failed and foiled terrorist plots from the definition of lone actor terrorism. According to Crenshaw and Lafree (2017, p. 69), unsuccessful terrorist attacks represent “the tip of the iceberg” when it comes to data resources in terrorism research. A wealth of valuable data can thus be gathered through researching failed or foiled terrorist plots. This is

especially true in the field of radicalisation research. Terrorists whose plots have failed or have been foiled have gone through radicalisation trajectories similar to terrorists who have conducted successful terrorist attacks. Including these in the sample will therefore provide valuable information to the understanding of a complex phenomenon.

2.1.4 Radicalisation

While early definitions of radicalisation often conflated the term with terrorism, viewing it as always foreshadowing acts of terrorism, more modern conceptualisations describe it as a *dynamic process* or an “action pathway” through which individuals or groups “adopt extremist belief systems with a willingness to use, encourage or facilitate violence with the aim of promoting an ideology or cause for social transformation”, but where “violence is not inevitable” (Spaaij R. , 2012, p. 47; UN General Assembly, 2018, p. 12). Radicalisation spans all ideological and religious groups, including politico-religious extremism, right-wing extremism, left-wing extremism, and single-issue extremism.

There does not exist one single pathway to radicalisation; one individual may undergo a widely different process to another, and thus the process cannot be captured by one single conceptual framework or theory. This is reflected in the presence of a wide varieties of different models and definitions of the concept in academia (Borum R. , 2011a).

A review of the existing literature on the subject reveals several conceptual fault lines along which definitions of radicalisation diverge.

Definitions of radicalisation often disagree on what should be regarded as the end point of the radicalisation process. The two most common answers to this question within academic literature both link radicalisation to violence in some way (McDonald & Whittaker, 2020, p. 35). For example, Hafez and Mullins define radicalisation as “a gradual process that entails socialisation into an extremist belief system that sets the stage for violence even if it does not make it inevitable” (2015, p. 959). Others go further in including violence in the definition itself; in Della Porta and Lafree (2012) define radicalisation as “a process leading towards the increased *use* of political violence” (p. 6), while McCauley and Moskalenko (2008) describes it as “behaviours in directions *that justify intergroup violence and demand sacrifice*” (p. 416). The definitions distinguish between “cognitive radicalisation”, where the end point is the person possessing extremist *beliefs*, and “violent radicalisation” where the end point is the individual engaging in *acts of terrorism* or other violent activity (McDonald & Whittaker, 2020, p. 35).

Cognitive radicalisation presents radicalisation as the process an individual goes through when their thinking and behaviour becomes significantly different from how the rest of society views social issues and participate politically (Angus, 2016, p. 1). Individuals who have undergone a cognitive radicalisation process “reject normative, liberal values, while calling for far-reaching changes to society that *may or may not* lead to violent action” (Brown & Cowls, 2015, p. 14). Most individuals who undergo a radicalisation process fall into this group, they may hold extremist beliefs, but never carry out acts of violence. Distinct from this is the concept of behavioural radicalisation. Often referred to as “radicalisation into violent extremism” (RVE), behavioural radicalisation largely emphasises violence as the end point of the radicalisation process. Despite being referred to as behavioural, this type of radicalisation is often referred to in relevant literature as both a cognitive and behavioural process, as it largely addresses “both the adoption of extremist beliefs and the causative role of these beliefs in the actor’s decision to engage in terrorist activity” (McDonald & Whittaker, 2020, p. 35).

In this thesis, the analytical focus is on behavioural radicalisation. The definition of radicalisation used in this thesis describes it as a processes by which “people come to adopt beliefs that not only justify violence but compel it,” and the development of these beliefs into violent action (Borum R. , 2013, p. 8). “Radicalisation” and “violent radicalisation” will be used interchangeably for this purpose.

The focus of this thesis is on the radicalisation of individuals into violent extremism through interactions and exposures to various types of *internet context*. Thus, some time will be spent on defining the term “Online radicalisation”.

In a central and often-used definition, Bermingham, Conway ,Mcinerney, O’Hare and Smeaton (2009, p. 2) defines Online Radicalisation as “a process whereby individuals through their online interactions and exposures to various types of internet context, come to view violence as a legitimate method of solving social and political conflicts”. While this definition captures important aspects of the concept, such as exposure to online contexts leading to moral realignment in the individual, it fails to capture the aspect of radicalisation where violence is viewed as the end point. Thus, this thesis adopts a slightly varied definition of the term, merging the abovementioned definition with the chosen definition of radicalisation.

Drawing on the definition of radicalisation by Borum (2013, p. 8) and the definition of the online sphere by Bermingham et al. (2009, p. 2), I define Online Radicalisation as a process whereby individuals through online interactions and exposures to various types of internet

context, come to adopt beliefs that not only justify violence but compel it to the point where they start developing these beliefs into violent action. In the following, I will review the existing literature about online radicalisation in order to develop the methodological framework of the study.

2.2 Existing literature and theory

One recurring criticism of the literature on online radicalisation is the weak empirical foundation of the concept. Gill, Conway, Thornton, Bloom and Horgan (2017) addresses this in a study, stating that literature on the subject is “largely theoretical and anecdotal” (p. 101), as well as being heavily dependent on case-studies with low generality. Similarly, Reeve (2019) states that “given the implicit assumption that radicalisation is triggered and influenced by exposure to, or consumption of, violent extremist content on social media, surprisingly little research has been conducted to explain *why*” (p. 2).

Another methodological issue is broad conclusions being drawn from biased data. Terrorism research has retained a strong focus on jihadist terrorism and the geographical areas most strongly associated with this type of terrorist violence (Schuurman, 2019, p. 463), comparatively, extreme-right terrorism, homegrown terrorism and self-radicalisation have received less focus. Existing research also tends to treat all cases of terrorism in an aggregated way, assuming that what applies to one type (Islamist terrorism) also applies to a second type (extreme-right terrorism) (Gill, Corner, Thornton, & Conway, 2015, p. 6).

Furthermore, some studies tend to record all online behaviour as online radicalisation, “from accessing information on overseas events via the internet, to accessing extremist content and propaganda, to detailing attack plans in a blog post» (Gill, Corner, Thornton, & Conway, 2015, p. 5). For example, the US Homeland Security Institute (HSI) defines self-radicalisation as a process wherein “young persons are using the internet to acquaint themselves with terrorist group’s ideologies” (2009, p. 3), deeming internet-usage alone to be sufficient for self-radicalisation to happen. The issue here is the mono-causality of behavioural explanations. When evidence emerges of a terrorist actor having engaged in online activity linked to their ideology, this is often coined as the sole explanation for their actions (Gill, Corner, Thornton, & Conway, 2015, p. 4).

There appears to be a consensus in more recent literature that the internet itself does not drive radicalisation. Most empirically driven research shows that radicalisation paths are far more

complex, as stated by Borum; “neither [online] radicalisation nor grievances are typically sufficient to cause an individual to engage in terrorism” (2013, p. 105). For many individuals assumed to have undergone a process of online radicalisation, there have been elements of offline influence as well.

Von Behr, Reding, Edwards and Gribbon (2013) reached a similar conclusion about face-to-face interaction. Analysing data derived from interviews of both extreme-right and jihadi offenders, they found that the internet created new opportunities for radicalisation as it is a “key source of information, communication and of propaganda for their extremist beliefs”, and provides a “greater opportunity than offline interactions to confirm existing beliefs” (p. 25). However, they concluded that the internet itself was not enough to cause an individual to radicalise in any of the cases they studied, not functioning as “a substitute for but rather complements in-person communication.” (p. 29).

Building in part on this previous study, Gill, Corner, Thornton and Conway (2015) examined the online behaviours of convicted terrorists, creating a database of 227 cases of terrorism where the internet was used to a lesser or greater degree. Registered individuals included both extreme-right and jihadi terrorists, as well as both group terrorists and lone actors. Analysing data material both qualitatively and quantitatively, they found that the internet primarily played a facilitating role (p. 19). Isolating extreme-right offenders, the study found that these were more likely than violent Jihadists in the UK to use the internet as a tool for learning and communicating (p. 36), furthermore, looking specifically at lone-actors from either creed, they found that these were significantly more likely to have learned online than those belonging to terrorist groups (p. 32).

These findings are supported by other studies; for example, relating to group differences, Gill and Corner (2015) found that young lone actors are more likely to make use of the internet both for learning and interaction, and Jensen & Lafree (2016) found that extremists that are more often acting alone may be quicker to radicalise due to increased online activity (p. 75).

Reeve (2019) concluded that online radicalisation was more likely to occur if certain criteria were met, such as a stronger identification with the ingroup, and more positivity towards the extremist group (p. 20). The study was an experiment which presented participants with groups that they had no previous grievances or loyalties towards, subsequently, the impacts found may be amplified in a context of historical, personal or organisational grievances (p. 20). This indicates that while the internet itself may not be enough to cause a process of radicalisation, it

may have a greater impact in situations when the individual carries previous grievances towards the out-group or identification with the “targeted” in-group.

Koehler (2015), interviewed former German extreme-right radicals about the effects of the internet on their individual radicalisation processes. This study found that the internet provides access to online materials for low operating costs, as well as allowing for anonymity and a sense of security in accessing such materials that one would usually not have offline (p. 118). This may motivate the individuals to act more radically than they otherwise would. Koehler concluded that “the internet is not a structure separated from the ‘real world’ but dynamically connected with it” (p. 128). Although some are solely active online, most join groups or participate in rallies offline.

When it comes to existing theoretical models of online radicalisation, the field remains fragmented (Bouhana, et al., 2017, p. 46). Models that illustrate the radicalisation of “lone actor” terrorists often fail to explain the full extent of online influence in the radicalisation process. While some frameworks specifically address online radicalisation, they tend to focus on radicalisation into a terrorist group through influence by, and interaction with, extremists or recruiters with connections in the organisations (Torok, 2013, p. 7; Neo, 2016, p. 216). Comparatively, the research question in this study asks about the online radicalisation processes of lone actor terrorists, meaning that existing models may not be applicable in this study.

In “The Age of the Lone Wolf”, Hamm and Spaaij present the only known radicalisation model dedicated exclusively to lone actor radicalisation into violent extremism (figure 1) (2017, p. 159). The cyclical model focuses on the interaction of five key components (personal and political grievance, affinity with online sympathisers or extremist group, an enabler, broadcasting of intent and a triggering event). The model shows radicalisation as a result of a combination of interacting “push and pull” factors, rather than a single causal factor (p. 160).

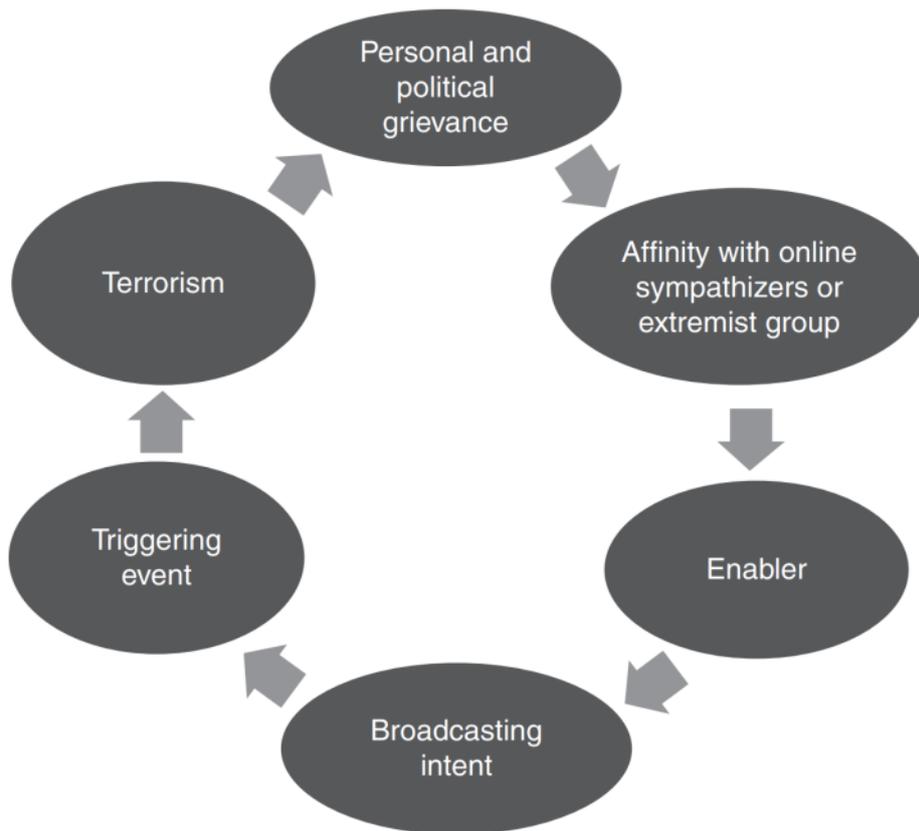


Figure 1. The radicalisation model of lone wolf terrorism. (Hamm & Spaaij 2017, p. 159)

As seen in the second stage of the model “affinity with online sympathizers or extremist groups”, Hamm and Spaaij recognise the role of the internet as a tool for connecting individuals, as well as providing access to information that can be used in the facilitation of attacks. However, the model fails to illustrate the extent and in what way social media and online platforms impact in the process of radicalisation.

To better understand the radicalisation process in the online sphere, it is necessary to consider the interplay and interactions over time between the person and the online sphere. Some researchers have attempted to cast some light on this process:

Robyn Torok developed an explanatory model for the process online radicalisation specifically (2013, p. 6). This study conceptualised the internet as an institution and emphasised the impact of isolation as a factor that plays a part in normalising behaviours and ideas otherwise regarded as radical.

Weimann and Knop (2008) developed a framework to explain how an individual engages with violent extremist narratives online. The framework consists of five phases; 1) the searching phase in which the individual exhibits interest in searching for radical websites, 2) the seduction

phase in which the individual is exposed to radical ideology online, 3) the captivation phase in which the individual is attracted by the radical narratives they are exposed to and begin visiting more websites, 4) the persuasion phase in which the individual becomes an active member of the online community, and 5) the operation phase in which the individual becomes involved in the operative activities of the online community or violent extremist group.

Building on Weimann and Knop's framework, Loo Seng Neo developed RECRO, an Internet-mediated radicalisation model with a similar five-phase structure that expands on Weimann and Knop's model, but delves deeper into the personal or psychological motivations that cause individuals to become interested in radical ideology (Neo, 2016, p. 204).

Examining extant radicalisation frameworks is useful as a point of departure for building the theoretical framework for this study. However, despite providing insights into the impact of the internet on processes of radicalisation, I find that neither theory fully explains the internet's role in radicalisation processes. While Weimann and Knop, Neo and Torok's frameworks provide helpful starting points for conceptualising and aggregating online factors that may lead to violent radicalisation, they all incorporate aspects of *group influence* on online radicalisation. They therefore lack the nuances to fully explain what mechanisms fuel online self-radicalisation into lone actor terrorism (Torok, 2013, p. 7; Neo, 2016, p. 216). Secondly, both Weimann and Knop and Torok present frameworks that fail to sufficiently explain how the mechanisms behind online based radicalisation work (Koehler, 2015, p. 116). Conceptualising the theoretical framework for this study, I nonetheless find it fruitful to use the insights from these theoretical models as a point of departure despite the differences described. I supply these theories with further insights from the wider academic literature in the field. In the following, I will conduct a review of existing research on online radicalisation to identify hypothesised online mechanisms in processes of self-radicalisation

To conclude, existing research shows that while the internet plays a facilitative role, it does not necessarily drive the radicalisation of individuals alone. Most studies considered the dichotomisation of offline versus online influence as a conceptual pitfall.

Specifically addressing the need for further research, Von Behr et al. (2013 p. 16) claim that "the internet is one aspect of radicalization, and it is essential for future research to look both online and offline to be able to understand the process as a whole". Similarly, Jiries (2016, p. 224) states that "There will be a great need in the future to empirically study and theoretically further explore what environmental and personality characteristics lead to radicalization".

To address this need, the focus of this thesis will not be on whether the internet *has* an impact on processes of radicalisation, but rather *how* it has impacted such processes. This will be done through examining the causal mechanisms that fuel individual processes of online radicalisation. By tracing the offline and online radicalisation of extreme-right lone actors, I hope to help narrow some of the gaps in our current understanding of how the internet impacts individual processes of radicalisation.

2.3 Mechanisms of online radicalisation

In order to identify relevant mechanisms of online radicalisation, a wider literature review was conducted.

Several researchers argue that the mechanisms driving online radicalisation appear “fundamentally similar across the ideologies” (Odag, Leister, & Boehnke, 2019, p. 266; Bjørgo, 2011; Köhler, 2015). Thus, the identification of radicalisation mechanisms will be done through examining studies of several ideological backgrounds in order to create a comprehensive overview.

Many conceptual models present online radicalisation through phase-based or process-oriented frameworks (Beadle, 2017, p. 4). Drawing on Hamm and Spaaij (2017), Weimann and Knop (2008), and Neo (2016), this paper classifies online radicalisation into three main phases: 1) the pre-radicalisation phase, which illustrates the impact of pre-existing triggers, needs and vulnerabilities on making an individual susceptible to adopting alternative worldviews from the internet; 2) the radicalisation phase, which illustrates the individual coming into contact with and becoming influenced by radical or extremist information found online, and 3) the operational phase, which illustrates the individual becoming influenced to translate violent belief into action, and the operational planning that follows.

It is important to note that the presented framework is not a fully realised theoretical model, but an initial categorisation of mechanisms into the phases they are believed to influence online radicalisation processes. Hedstroem and Swedberg (1998) define *mechanisms* as “a set of hypotheses that could be the explanation of some social phenomenon” (p. 25). Some mechanisms categorised in the same phase may overlap, while others may not be present at all in the analysis. Nonetheless, the following sections will present the key assumptions and insights found in the literature on how processes of radicalisation occur in the digital era.

My selection of the mechanisms was based on several considerations. Firstly, I chose the ones that appeared most prominent in the literature. Several other mechanisms were considered but ultimately excluded. For example, I have not included purely offline mechanisms, while I have included mechanisms that have elements that are both offline and online, as well as those who are solely online. Offline mechanisms of radicalisation will not provide any insight into online radicalisation, and are therefore not considered to be relevant.

Furthermore, several mechanisms were merged in order to make the scope of the analysis less extensive. For example, *operational and ideological facilitation* were merged into the overarching mechanism *facilitation*. The mechanism *legitimisation of violence* was included under *echoing*, as the effect of exposure to and participation in echo chambers can be interpreted as a moral realignment to accepting violence as a legitimate course of action.

By selecting the mechanisms that were most prominent in the literature, as well as merging mechanisms that overlap in some way, my hope is that I can provide a clearer picture of the impact of the internet on radicalisation processes. Table 1 summarises the framework and highlights the online/offline dimensions.

Table 1: mechanisms of online radicalisation

Mechanism	Online/offline dimension
Compensation	Online/offline
Isolation	Online/offline
Facilitation	Online
Acceleration	Online
Echoing	Online
Action triggering	Online/offline

2.4 Pre-radicalisation phase

2.4.1 Compensation

As discussed in the previous section, it is rarely possible for scholars to categorically conclude that an individual was solely radicalised by the consumption of online media and that they would not have radicalised without access to it (Melegrou-Hitchens & Kaderbhai, 2017, p. 28).

Borum, in a review of conceptual models of radicalisation, concluded that factors considered to be causal for radicalisation to happen “include broad grievances that ‘push’ individuals towards a radical ideology and narrower ‘pull’ factors that attract them” (2011, p. 57). The frameworks of both Weimann and Knop (2008) and Neo (2016) include a pre-radicalisation phase detailing the impact of pre-existing vulnerabilities as factors that “push” radicalisation. These factors can consist of religious or political ideology, or triggers, conditions and attitudes that impact how an individual reacts to circumstances and experiences (Neo, 2016 p. 206).

Neo argues that pre-existing vulnerabilities play a role in influencing the individual to re-evaluate their life choices and belief systems, creating *cognitive openings*, i.e. making the individual increasingly receptive towards new ideologies. “Triggers, needs and vulnerabilities” impacts the individual’s psyche, leading them to experience feelings of disillusionment with world affairs or political authorities (Smith A. G., 2018, p. 5). This, in turn may lead them to the conclusion “that the old reality simply no longer exists and a new one must be established” (Neo, 2016, p. 207). The need to establish a new worldview may thus lead them to seek out and explore different worldviews in the online sphere.

I have called this mechanism *Compensation*. It connects offline vulnerabilities with online radicalisation processes. The underlying assumption is that radical websites and forums provide vulnerable individuals with alternative worldviews as espoused by their shared ideology. Individuals compensate for their pre-existing vulnerabilities through increased online presence, which gives them a platform where they can vent their frustrations and compensate for their feelings of disillusionment with the status quo. Another possibility is that the individual seeks affiliation in alternative social environment where the threshold for inclusion is low, including non-extreme milieus such as religious milieus or online gaming.

Pre-existing vulnerabilities impact the individual’s susceptibility to the information they access online, and thus start the process of radicalisation.

The mechanism may be activated by several different vulnerabilities; for example, instabilities in an individual’s personal life may have a similar impact. Smith (2018) writes that personal crises in response to personal events, such as crises in the family, addiction to drugs, incarceration or being arrested may create cognitive openings (p. 5). Schuurman et al. (2017) finds in a study of lone actor terrorists’ attack planning and preparation that “mental health issues, personality profiles, or specific character traits” play a role in individual’s radicalisation process (p. 1194). Similarly, Malthaner and Lindekilde (2017) lists trauma and mental health

issues as factors that may make an individual more likely to seek out new and different worldviews (p.12).

Discussing the phenomenon of self-radicalisation, Ramakrishna (2007, p. 2) suggests that the loss of status, for example through a change in occupation or the loss of work, may cause the individual to be unhappy with the current status quo. Subsequently, they may become more susceptible to the counter-culture appeal of the violent extremist ideology (Neo, 2016 p. 206). Gill, Horgan and Decker (2014) conducted a study of 119 lone actor terrorists from different ideological motivations over different decades and found that over half had changed address in the five years prior to the attacks, 40 percent were unemployed, with over a third of these having lost their jobs within one year of the attack. They found that over half of the registered were under great financial stress at the time of the attack (p. 429). Similar results were found in Gill, Corner, Conway, Thornton, Bloom and Horgan (2017) where one third of the 223 registered offenders were unemployed at the time of their arrest.

A previous history of violent behaviour has also been suggested to impact the individual's susceptibility to radical ideas. In an empirical study on the planning and preparation for attacks by lone actors, Schuurman, Bakker, Gill and Bouhana (2017) paid particular attention to the registered individuals' prior involvement in violent crime and militancy, finding that 46 percent of a sample of 55 lone actor terrorists had a history of violent behaviour (p. 1194). This is consistent with prior research from scholars such as Della Porta, who concluded after a study of Italian terrorists in the 1970s and 80s, that aggressiveness and previous willingness to use violence, is often associated with the higher likelihood to commit violent criminal acts for political means.

2.4.2 Isolation

Central to many push factors is that they indicate – or lead to – a disembeddedness or a heightened sense of isolation from social networks or relationships in the world around them. Schuurman et al. (2017) discuss how the social context individuals find themselves in, often plays a role in the radicalisation process. Radicalisation is heavily tied to feelings of community and belonging (Sunde I. M., 2013). According to Sageman, lone actors are almost always members of radical forums and (see themselves as part of) virtual communities (2008, p. 122). The internet as a medium attracts individuals who experience a weakening of offline relationships or a broader alienation from the norms and beliefs in the wider society (Bergin, Osman, Ungerer, & Yasin, 2009).

The causal mechanism in question, which I have decided to refer to as *Isolation*, can be activated at several points in the radicalisation process.

At the beginning of the process, isolation refers to the individual's feelings of alienation from society at large that leads to a reorientation where the individual is more likely to respond positively to radical narratives (Malthaner & Lindekilde, 2017, p. 9; Weimann & von Knop, 2008). Weimann and von Knop outline how radical narratives may resonate more deeply with those who otherwise face social alienation and disenfranchisement. Similarly, James (2019) explains how online radical forums and messaging boards attract individuals who "feel alone and possibly do not feel accepted by their community and its beliefs/norms", and by contrast, they "may identify with some of the ideas shared in [online forums] that may not be shared by their community".

At later points in the radicalisation process, isolation may be activated as a dynamic process of "conflictive interactions and isolation" and "virtual integration and withdrawal from personal relations" (Malthaner & Lindekilde, 2017, p. 176).

In Torok's explanatory model for the process of online radicalisation and terrorism, the isolating influence of the internet is emphasised. According to this model, the online environment fosters self-imposed social isolation that acts as "insulation from pervasive outside influence, particularly when it comes to ideas and competing rationalities" (Torok 2013, 6). While radicalised individuals are not usually completely separated from the rest of the world, they exhibit a withdrawal from interaction with others, as the online community starts to take precedence over the individual's immediate physical environment (Torok, 2013, p. 2; Neo, 2016, p. 212). Individuals become increasingly "trapped" or "absorbed" in radical online communities, which results in further erosion of personal relationships (often through confrontations with family members and offline friends) and growing social isolation.

Isolation is discussed as a separate mechanism from compensation, because while it may be connected to the compensation mechanism, it describes a more specific offline push-factor (isolation) that causes the individual to search for alternative world views online. The mechanism of isolation may activate without pre-existing vulnerabilities, while an individual may compensate for vulnerabilities without isolating from society.

2.5 Radicalisation phase

While there is consensus among academics that terrorism is not *caused* by pre-existing vulnerabilities like those described above, such elements can play a role in bringing about involvement in political violence. The individual experiencing a loss of status, becoming unmoored from society or rejected by peers may “feel deprived of what they perceive as values to which they are entitled, and form grievances against the government responsible for their unemployment, discrimination and injustices” (Hamm & Spaaij, 2015). Within a process of online radicalisation, a resulting search for alternative world views drives individuals to the internet, where they become exposed to radical narratives.

According to Neo’s radicalisation model, an individual who encounters extremist narratives online will make a choice either to ignore the material, or to continue the search for more relevant materials (2016, p. 208). In an experimental study of engagement with online materials, Reeve (2019) found that most people will engage to some degree with extremist materials they are exposed to. However, individuals who identified more strongly with the in-group, and showed more positive emotions towards the extremist group, would be more likely to choose to continue to delve deeper, while individuals who identified less with the in-group and extremist group would be more likely to ignore the information (p. 20). The choice to continue searching for further information seems to be contingent on the presence of pre-existing and person-specific risk factors that make an individual vulnerable to the information they access online.

2.5.1 Facilitation

It has long been accepted among researchers that the internet acts as a facilitative tool that affords opportunities for radicalisation and operational planning. The mechanism *Facilitation* illustrates this aspect of the online sphere. This mechanism can be activated in the radicalisation phase as a facilitator of radicalisation, and in the terrorism phase as a facilitator of operational planning.

There are a wide variety of perspectives on how the process of online facilitation takes place: At the most basic level, online influence concerns the effects of exposure to – and engagement with different forms of online content. Analysing data derived from interviews of both extreme-right and jihadi offenders, von Behr, Reding, Edwards and Gribbon (2013) concluded that the internet acted as a “key source of information, communication and of propaganda for their extremist beliefs”, and provided a “greater opportunity than offline interactions to confirm

existing beliefs” (p. 25). Weimann and Knop (2008) categorise facilitative aspects of online radicalisation into instrumental and communicative uses (p. 899).

Instrumental uses refer to the way in which the internet is used as a tool for learning purposes (Gill et al. 2015, p. 5). The internet provides ease of access to extremist materials such as radicalising materials, instruction manuals and videos (Weimann G. , 2014, p. 4). While there is no clear attribution of causality, several researchers have pointed to a correlation between facilitative aspects of the internet, and radicalisation: for example, in a study done by Gill et al. (2017 p. 107) of 223 registered UK terrorist actors between 1990 and 2014, over half had used the internet to learn about terrorist activity, a figure which rose to 76 percent from 2012 and onwards. An additional 44 percent of the actors downloaded extremist media including videos, photographs, and lectures.

Communicative uses refer to the way in which the interconnectivity of the internet facilitates the communication between like-minded individuals. Studying the phenomenon empirically, Gill et al. (2017, p. 108) found that around a third of actors communicated with other radicals virtually, when studying a group of 223 UK terrorists – both lone actors and group offenders.

The internet can be characterised as a contact point through which individuals may form relationships and develop a shared sense of belonging in a community. Thus, the internet facilitates the development of “new forms of sociability,” that replaces physical proximity with the benefits of anonymity and possible self-disclosure (Ducol et al. 2016, 35).

Following a triggering event inciting violent action, comes the phase referred to in several frameworks of radicalisation as “the operational phase” or the “attack planning phase” (Neo, 2016; Schuurman, Bakker, Gill, & Bouhana, 2017). The facilitation mechanism can also be activated in this phase of the radicalisation process. Schuurman et al. (2017) categorise attack planning as all activities that must be undertaken to make an act of terrorist violence possible in a practical sense” (p. 1195). The internet acts as a facilitative influence in this phase of the process. Referring to the internet as a “knowledge bank for preparing violent action”, Ducol, Bouchard, Davies, Oullet and Neudecker (2016) describe it as a space “from which individuals might draw inspiration for perpetrating violent actions or acquiring strategic as well as practical knowledge that can be directly applied in the pursuit of their objectives” (p. 83).

First and foremost, the internet provides vast resources for operational knowledge ranging from acquisition and handling of firearms to the manufacturing of homemade explosives, the identification of potential targets and gathering of operational information about the targets, and more

general information necessary for conducting a terrorist attack (Schuurman, Bakker, Gill, & Bouhana, 2017).

Focusing specifically on lone actor terrorism, Benson (2014) suggests that this aspect of the online sphere might enable lone actors to prepare and carry out terrorist attacks independent of contact with other extremists, allowing them to evade authorities throughout the operational phase.

2.5.2 Echoing (echo-chamber-effect)

While it is not possible to identify one single item of extremist propaganda as guaranteed to cause radicalisation, it is largely accepted that sustained exposure to extremist materials increases support for the use of violence (Pyszczynski, Abdollahi, Cohen, & Weise, 2006). According to Duarte (2007), online social interaction is considered more compelling and persuasive for the process of radicalisation than passively receiving information. It is thus argued that the most dangerous impact of the internet is not the act of passively exposing individuals to radical rhetoric, but instead that it provides individuals with access to a community of like-minded individuals where extremist thoughts and ideas can be exchanged and validated (Neo, 2016, p. 210).

Neumann describes the process of reciprocal online interaction as a result of the echo-chamber effect, a mechanism I have chosen to call *Echoing* in this thesis. Neumann argues that “deviant and extreme behaviours are learned and absorbed” in online forums, leading to the individual starting to view extreme actions and ideas as positive and desirable, “because of constant interaction with people who hold similar – and similarly extreme – views” (Neumann P. R., 2013, p. 436). Through echoing, violence in both speech and action is legitimised.

The internet allows the creation of a virtual community and a social environment that is largely devoid of dissenting opinions and moderating voices. Through excluding dissenting perspectives, radical beliefs are amplified and reinforced. Over time, this leads to a “strengthening of extremist identity” for the members, and results in them “gathering around perceptions of enemy images and who constitutes the ‘in-group’ and ‘out-group’” (Sunde I. M., 2013, p. 99).

The sense of anonymity and protection from detection provided in these communities lowers the threshold for engagement with illicit and risky materials. This may embolden individuals to express behaviours and attitudes that are otherwise unacceptable or inappropriate in society

(Neumann P. , 2013, p. 1; von Behr, Reding, Edwards, & Gribbon, 2013, p. 18; Koehler, 2015, p. 118). By extension, radical discourse often impacts the radicalisation process through legitimising not only violent discourse, but also the use of violence to bring about political change. The individual internalises radical ideas and builds a new social identity around the online community.

The echoing effect is illustrated in a study of the extremist forum. Stormfront. This and similar forums impact many users specifically through the creation of “a ‘virtual community’ with internal norms, distinctive discourse and internal justice” (Sunde I. M., 2013, p. 99). Through these mechanisms, online forums have an “identity-building effect”; the community provided online solidifies the ideological identities and extremist views of members so that they gather around perceptions of enemy images and who constitutes the ‘in-group’ and ‘out-group’ (Bowman-Grieve, 2009, p. 997; McDonald & Whittaker, 2020, p. 37). The “out-group” becomes dehumanised in the eyes of the individual and according to Bandura, “once dehumanised, the potential victims are no longer viewed as persons with feelings, hopes and concerns but as subhuman objects [...] regarded as insensitive to maltreatment and capable of being influenced only by harsh methods (Bandura, 1990, pp. 180-181)

The result is a “moral disengagement of self-sanction” where the individual’s moral inhibitions against the use of violence are (subconsciously) lowered (Neo, 2016, p. 211).

2.5.3 Acceleration

By virtue of the internet facilitating information provision and communication for disconnected, like-minded individuals, many studies identify the internet as a factor of “incubation” or “acceleration” of online radicalisation (Weimann G. , 2012, p. 79; Bouhana, et al., 2017, p. 115). This refers to a reduced timeframe of radicalisation in the online sphere, when compared to traditional radicalisation processes. I have called this mechanism *Acceleration*.

Both communicative and instrumental facilitative factors have received attention as accelerating forces. According to Precht (2007, p. 58), “there is a correlation between jihadi web sites and propaganda on the internet and rapid radicalisation”. Likewise, Holt, Freiligh, Chermak and McCauley (2015) identified that victim and jihad videos as powerful accelerators of radicalization processes.

Providing “instantaneous and continuous” access to radicalising materials, the internet becomes a “one-stop shop” for all information needed for radicalisation to occur, “in a reduced timeframe

compared to accessing the information in the ‘real’ (as opposed to virtual) world” (von Behr, Reding, Edwards, & Gribbon, 2013, p. 19). Through forums and chat rooms, it is possible for an individual to exchange with like-minded individuals at any hour of the day, regardless of borders. As a result of this, the process of online radicalisation is believed to happen more quickly than it otherwise would in the offline sphere.

There is no agreed upon length of time or template for radicalisation. In attempt to measure acceleration as a mechanism I use the average timeframe of such a process as a point of departure. In a study of American homegrown terrorists, Klausen (2016) found that the mean timespan for radicalisation was just five years, and the median was over four years and two months (p. 16). As such, in this study, I suggest that the acceleration mechanism may be activated if the timeframe of radicalisation (from the first moments of exploration of extremist ideas to the final act) is considerably shorter than five years. A second possible scenario is that the inclusion of an online element accelerates an already started radicalisation process in such a way that the individual in a short span of time starts to express markedly more extreme political views, or in a short frame of time starts verbalising desire to – or acceptance of – using violence for political means.

2.6 Operational phase

2.6.1 Action triggering

The intention to commit violence or the belief that violence is justified is unlikely to be enough on their own to initiate the attack process. Instead, some authors specify the need for a trigger event to link grievances to an enemy (Beadle, 2017, p. 5). An essential factor in most models of radicalisation, whether offline or online, is the idea of a catalysing moment which creates the impetus to commit acts of political violence. I have called this mechanism *Action triggering*.

Both Wiktorowicz (2004, p. 7) and Schuurman et al. (2017, p. 1195) link the concept of triggering events back to the “cognitive openings”, i.e. a moment which may disrupt the “certainty in previously accepted beliefs” leaving individuals more receptive to alternative viewpoints.

In the model of radicalisation into lone actor terrorism, Hamm and Spaaij determine that “triggering events may be personal or political or some combination of the two” (2017, p. 122). While Neo describes the “tipping point” preceding violent behaviour, brought upon by the

individual encountering “new issues and/or circumstances (i.e., triggers) that supplied the resolution to act in adherence to one’s newly internalised radical worldview” (p. 213).

Catalysts range from personal setbacks or social events that supply resolution to act (Jensen, Seate, & James, 2018, p. 7), to inspiration drawn from successful terrorist attacks (Schuurman, Bakker, Gill, & Bouhana, 2017, p. 1195), to “moral outrage” or a belief that the individual’s community (in-group) is under attack (for example as a result of a terrorist attack) (Neo, 2016, p. 213).

Action triggering may take place solely online, for example through “forms such as video or written messages from an organization’s leadership or through online chat forums, email, social media posts, or encrypted online applications” However, this incitement is rarely effective without previously present “anger, frustration and despair” (Anderson, 2020, p. 16). According to Beadle (2017, p. 5), “being exposed to such events on the media rather than in the ‘real world’ appears to be sufficient for creating a stimulus to join an extremist organization, if the individual can somehow identify with the victim”. Hypothesising that online exposure to triggers is sufficient for radicalisation to move into violent extremism, I will register the mechanism as online/offline and registering it as active in the analysis if the online element is present. Following the action triggering mechanism comes the operational aspects of the facilitation mechanism in the cases where this is active.

To summarise, this chapter has presented the theoretical framework for the study. Through a literature review, I identified six mechanisms seen as particularly relevant for explaining the phenomenon of online radicalisation.

The mechanisms were categorised into one of three phases, pre-radicalisation, radicalisation and operational phase. Several of the mechanisms may appear in more than one phase of the process. For example, Isolation may appear both in the pre-radicalisation phase and the radicalisation phase and facilitation activating both in the radicalisation and operational phase.

The literature review also revealed that online radicalisation into violent extremism is not a process that is solely impacted by mechanisms in the online sphere, but that it may be contingent on party or fully offline mechanisms as well. It is unlikely that any of these mechanisms alone are sufficient to cause an online radicalisation process. Some mechanisms may impact the

processes more strongly, while others may be found to have no impact at all. Additionally, there may be different paths to the outcome in different cases.

3 Research design and methodological framework

This chapter outlines the research design and methods applied in thesis to answer my research question: *to what extent and in what ways has the use of the internet and social media influenced the radicalisation process of lone actors who have carried out or attempted to carry out large-scale terrorist attacks in the West since 2000?*

To answer this question, I begin by presenting the comparative case-study design, as well as process tracing as an analytical method. I then go through each of the identified mechanisms to tease out observable implications or indicators for my analysis. Next, I describe the collection of data, before briefly discussing some of the ethical considerations taken in the study.

3.1 Case study

The research design chosen for this study will be a comparative case study design. A case study is defined as an “intensive study of a single case where the purpose [...] is – at least in part – to shed light on a larger class of cases” (Gerring, 2007, p. 20). According to Yin (2018, p. 39), the case study is appropriate when the purpose of the study is the understanding of a contemporary phenomenon within its real world context. The design is particularly suitable in studies guided by research questions that require extensive or “in-depth” descriptions of social phenomena. The case study offers a means of investigating complex social units through the focus on fewer “subjects,” but more “variables” within each subject. This type of design allows the researcher to deeply explore the complexities of a phenomenon through a variety of data sources. This, in turn ensures that “multiple facets of the phenomenon to be revealed and understood” (Baxter & Jack, 2008, p. 544). The desire to understand a complex phenomenon – namely the online radicalisation processes of extreme-right lone actor terrorist – makes the in-depth focus of the case-study design appropriate.

Like with any research design, there are methodological strengths and weaknesses. The strength of the design is its internal validity; it is easier to establish the veracity of a causal relationship when focusing on a low number of cases (Gerring, 2007, p. 43). On the other hand, the low number of subjects impact the external validity of cases, resulting in inferences that are rarely generalisable to the larger population. Therefore, a *comparative* case study has been chosen to counteract some of these weaknesses.

The small-n design allows us to go in-depth into the data material, while at the same time achieving some width through the comparative design. Compared to the single-case study

approach, the study of multiple cases is suggested to increase the methodological rigor of a study through "strengthening the precision, the validity and stability of the findings," (Miles and Huberman, 1994, p. 29). The evidence from multiple cases is therefore "often considered more compelling, and the overall multiple-case study is therefore regarded as being more robust" (Yin, 2018, p. 91).

Another reason for the applicability of the multiple case study design is the assumption that the mechanisms selected for the process-tracing analysis are universal, rather than context-specific. This means that they are applicable to almost all times and places. The mechanisms were selected following a review of the literature of both jihadi radicalisation and extreme-right radicalisation. This choice was made based on the conclusion in several studies that the mechanisms driving online radicalisation appear "fundamentally similar across the ideologies" (Odag, Leister, & Boehnke, 2019, p. 266; Bjørngo, 2011; Köhler, 2015). The mechanisms are thus assumed to be applicable on a broader selection of similar cases.

3.2 Case selection

There is no agreement in the literature on the ideal number of cases in a multiple case study design. Instead, this must be decided based on a trade-off between informational breadth and depth. When the number of cases is small, for high informational depth, while one often gets less depth when the number of cases increase.

The nature of the research question, the available resources or timeframe of the study, and the availability of cases will all impact whether the breadth (across multiple cases) or depth (within case) should take precedence (Baškarada, 2014, p. 7). Process tracing is a method of analysis that demands "rigorous work and a vast amount of time and data" to properly conduct the study (Gerring, 2007, p. 49). As the scope of the thesis is greatly limited by the time and the resources available to me, I have found it necessary to delimit the scope to three cases from a broader sample (N=25). This delimitation implies that I have excluded many cases that could have proven useful to answer the research question.

Next, the method for case selection needs to be considered. While large-n research benefits from random sampling, purposive case selection is often more beneficial in fields of study where the volume of potential cases is relatively small, as is often true in the field of online radicalisation research (Ducol, Bouchard, Davies, Ouellet, & Neudecker, 2016, p. 12). Therefore, considering the relatively small number of cases in my population (N=25), I find it

most appropriate to make a purposive case selection, aiming to reflect some of the diversity of my population.

The selected cases are diverse on several key variables, including time, geographical location, target group, attack method, and number of casualties. The primary objective of the “diverse case” selection method is to achieve maximum variance across relevant dimensions. Diverse cases have therefore been argued to have a “stronger claim of representativeness than any other small-N sample” (Gerring, 2008). This in turn may remedy some of the issues this design has with external validity. Yet while a diverse case sample may increase representativity, it is not necessarily generalisable to a larger population (Seawright & Gerring, 2008, p. 7).

My cases provide insights into the causal relationships between internet-use and radicalisation first and foremost within these cases. Therefore, I must be careful drawing general conclusions about the relationship between internet-use and radicalisation outside my sample. However, considering the universal nature of the mechanisms to be examined, there are good reasons to believe that my findings may feed into a larger academic debate about the nature and scope conditions of such radicalisation mechanisms, thereby contributing to accumulating generalisable knowledge in this field.

3.2.1 Sample

To identify cases that run along the spectrum of the larger population, a certain amount of knowledge is required about the population. This allows the researcher to properly contextualise the choice of cases. Therefore, in order to select a diverse set of cases, I first collected a larger sample of cases to represent the wider universe.

Selecting cases relies on a two-step process. First, one must create an overview of the empirical universe by identifying and registering a sample, before examining this sample and selecting the cases. Examining existing research, no relevant dataset was found to have analysed lone actors who have self-radicalised online. Therefore, in order to extrapolate a diverse case selection, I first collected a sample from the larger universe of cases.

To be included in my larger sample, several conditions need to be present: First the individuals must be lone actor terrorists, in line with the typology by Spaaij (2010, p. 856). (see: chapter 2.1.3). Second, they must either have actively conducted violent terrorist attacks (see: definition of terrorism in chapter 2.1.2), or have planned terrorist activity, but were arrested or stopped before conducting the attacks. Third, the radicalisation process and terrorist planning/attack

must have taken place within a Western liberal democracy. Fourth, the individual must be motivated by extreme right-wing ideology. And fifth, it must be reliably reported that the individuals have used the internet in some way in the radicalisation process.

A sample was collected from examination of open-source information, mainly using academic literature on lone-actor terrorism, to find names that fit the criteria. This was supplied with online news articles, information gathered from court documents, reports, and datasets compiled by non-government entities such as the Global Terrorism Database and the RTV dataset. In the end, I identified 25 individuals who met the requirements for inclusion.

I then collected information about these individuals on a variety of variables, spanning socio-demographic information (age, gender, occupation, family characteristics, relationship status, employment), antecedent event behaviour (previous violent behaviour, drug-use), event-specific behaviours (attack methods, target group), and how the internet was used (communication, consumption of propaganda, and operational use). With the collection of this type of sensitive information, ethical considerations must be taken into account. This research project has been approved by the Norwegian Centre for Research Data (NSD), and the data collection and analysis follow their guidelines. The steps taken to ensure the protection of the subjects' dignity, privacy and integrity are outlined in chapter 3.4.

About half the sample (52%) had conducted successful terrorist attacks, while the rest were failed or thwarted attacks. The average death toll for successful attacks were 14.3. This number is heavily influenced by a few extreme cases. Removing the extreme outliers (77 killed in Norway in 2011 and 50 killed in New Zealand in 2019) makes the average death toll 5.5.

The sample was overwhelmingly white males (96% Caucasian, 100% male), the mean age when perpetrating the attack was 30.4 years old, with a median age of 29.5. The sample favoured weapons such as firearms (13) and/or homemade bombs (10) with fewer favouring blades (5) or conducted vehicle-borne attacks (2). In terms of attack targeting, the sample overwhelmingly targeted minorities (20) or had an anti-minority reasoning behind their attacks. In terms of internet use, the sample was found to have consumed propaganda in 88% of cases, have been in contact with others online in 60% of cases, and used the internet in attack preparations in 64% of cases.

The sample also included a high proportion of unattached individuals; 76% were unmarried and without children, while 64% were unemployed (of the 36% that were employed, 5 were

students, while 3 were employed in solitary professions such as truckers). Furthermore, 36% had a criminal record, while 60% had a history of mental illness or personality disorders.

Examining these characteristics, I chose three cases for this study: Peter Mangs, Anders Behring Breivik, and Dylann Roof. Each exemplified typical characteristics for the group in terms of age, gender and race and marital status (see: Table 2).

At the same time, the cases are diverse when it comes to three key variables. First, the cases vary in points in time within the last 20 years. Peter Mangs conducted his first act of extremist violence in 2003, Anders Breivik in 2011 and Dylann Roof in 2015. As such, the cases represent different points in time in the evolution of the internet, encapsulating the beginning of web 2.0 and the rise of social media. The internet also seems to have been used in widely different ways in each case (see: Table 3).

Second, the cases were selected to ensure geographical diversity, choosing cases covering both Europe (Sweden and Norway) and the United States. These are countries with vastly different histories and contexts in terms of right-wing extremism and militancy. Despite being neighbouring countries and very similar in most regards, Sweden has experienced considerably more right-wing terrorism and militancy than Norway and the other Nordic countries (Ravndal, 2018, p. 1). Cases from different countries are therefore chosen in the hope of documenting how similar causal mechanisms operate in different national contexts.

Lastly, while the chosen cases vary in terms of target group, attack method and number of casualties (see: Table 4), all cases culminated in large-scale terrorist attacks that have been broadly reported on in media. The reason for this is that the analytical approach of process tracing demands a wealth of data in order to ensure robust findings. In addition, all three cases of terrorism happened in English- or Scandinavian-speaking countries where familiarity of language makes a wider array of sources available. The availability of a wide variety of sources (detailed media articles, books, scientific articles, reports, and court documents) ensures that the process-tracing analysis can be conducted to its full extent.

Table 2 Comparison of selected cases to sample: Personal characteristics

Variables	Average attributes in sample (N=25)	Peter Mangs	Anders Behring Breivik	Dylann Roof
Age (at first known terrorist activity)	30.4	31	32	21
Gender	100% male	Male	Male	Male
Ethnicity	96% White	White	White	White
Country		Sweden	Norway	USA
Marital status	76% unmarried and without children	Unmarried and without children	Unmarried and without children	Unmarried and without children
Employment status	64% Unemployed	Employed on/off	Self-employed on/off	Unemployed
Pre-radicalisation criminal history	36% With criminal record	No criminal record	No criminal record	Criminal record

Table 3: Online dimension

Perpetrator	Online components
Peter Mangs	Participant on online forums Attack preparations: weapons acquisition (bought gun)
Anders Behring Breivik	Participant on online forums Consumption of extremist propaganda Attack preparations: Weapons acquisition (bomb making manuals) Distribution of extremist material (manifesto)
Dylann Roof	Participant on online forums Distribution of extremist material (manifesto)

Table 4: Comparison of selected cases to sample: Attack characteristics

Variables	Average attributes in sample (n=25)	Peter Mangs	Anders Behring Breivik	Dylann Roof
Target group	28% Muslims 40% other minorities	Immigrants	Political party	African-americans
Weapon	52% firearm 40% homemade explosives 28% other	Firearm	Firearm Homemade explosive	Firearm
Casualties	14.3 (including outliers) 5.5 (excluding outliers)	2	77	9

3.3 Mechanisms, indicators and process tracing

Understanding radicalisation as a process, the purpose of this study is to cast light on the causal mechanisms that connect internet-use with radicalisation into violent extremism as an outcome. With causal mechanisms being the primary focus of the study, I have chosen process tracing as my main method.

Process tracing involves tracing links “between possible causes and observed outcomes” (George & Bennett, 2005, p. 6). The purpose is “identifying steps in a causal process leading to the outcome of a given dependent variable of a particular case in a particular historical context” (p. 176). One advantage of this method is that it allows the researcher to make strong within-case inferences about causal outcomes. This means that process tracing increases the validity of theorised causal inferences (Beach & Pedersen, 2016).

While internal validity in process tracing studies is high, the generalisability of causal inferences in process tracing research is often problematic. The researcher is often in danger of developing “tunnel-vision” and losing sight of the bigger picture – i.e. the broader structural context and the wider implications of the work (Checkel, 2005, p. 19). If the researcher examines just one case, he or she risks confirmation bias when inferring causal relationships between mechanisms and outcomes. In this study, this weakness is counteracted through a comparative design.

At the very heart of process tracing, is the identification and tracing of causal mechanisms to understand an outcome. As such, process tracing is inherently *deductive*, and typically implies developing a theoretical framework prior to the data collection and analysis. This exercise also

involves theorising observable implications of hypothesised causal mechanisms, before tracing such observable implications within a case to test a hypothesis (Bennet & Checkel, 2015, p. 7).

My identification of relevant causal mechanisms involved broadly reviewing the vast number of competing hypotheses presented in the relevant literature and extracting those that stood out as most relevant. A broad literature review culminated in the identification of six mechanisms explaining how use of the internet impacts the process of radicalisation into violent extremism; these mechanisms are discussed in the theory-chapter.

Based on the existing literature, a list of 29 empirical indicators commonly associated with radicalisation was drawn up. The process of choosing or operationalising observable indicators varied between the mechanisms. The choices were informed by the same empirical material that I used as a starting point for selecting the mechanisms. Indicators for isolation, facilitation, echoing and action triggering were drawn up directly from the theory presented in chapter 2. Several indicators for compensation were taken from the wider theory about vulnerabilities for radicalisation, and given an online element based on online radicalisation literature. With regards to acceleration, the indicators are taken from a study conducted by Klausen et al., who found the mean timespan for radicalisation to be just over five years, and the median four years and two months. These indicators were then nuanced based on my own considerations. Table 5 below outlines the mechanisms and their corresponding empirical indicators.

Table 5: mechanisms and empirical indicators

Mechanism	Online/offline dimension	Empirical indicators
Pre-radicalisation phase		
<p>Compensation Individuals who experience some kind of pre-radicalisation vulnerabilities may compensate for these vulnerabilities through seeking alternative world views online.</p>	Offline/online	<p>Vulnerabilities:</p> <ul style="list-style-type: none"> - Individual experiences a personal crisis event leading to dissatisfaction with self (family crisis, drug abuse, incarceration, unemployment, homelessness) - Alienation/rejection from peers - Prior criminal history - Individual experiences/has experienced an event causing a shock or injury. <p>Online compensation:</p> <ul style="list-style-type: none"> - Individual searches for alternative world views/vents frustrations online. - Individual seeks affiliation in alternative online milieus with low threshold for inclusion; including non-extreme milieus (i.e. religion, online gaming).
<p>Isolation Individuals who are disembedded from offline social networks seek community online. Over time they become increasingly “trapped” or “absorbed” in radical online communities.</p>	Online/offline	<p>Isolation:</p> <ul style="list-style-type: none"> - Weak/no personal offline relationships <p>Online precedence/immersion:</p> <ul style="list-style-type: none"> - Individual starts living “second life” online - More time spent online than with offline relationships <p>(Offline) Detachment:</p> <ul style="list-style-type: none"> - Disconnection interpersonal relationships - Withdrawal from educational programs /failing classes - Withdrawal from work/pursuing work with little supervision
Radicalisation phase		
<p>Facilitation Individuals use the internet to access radical materials and communicate with other extremists and plan operational aspects of terrorist activity.</p>	Online	<p>Ideological:</p> <ul style="list-style-type: none"> - Individual accesses propaganda texts/videos/content/information about extreme ideologies - Individual communicates with other extremists online <p>Operational:</p> <ul style="list-style-type: none"> - Individual searches information and acquires weapons/materials to build weapons - Operation recognisance - Acquisition of finances/funding for attack

<p>Echoing Constant interaction with people who hold similar - and similarly extreme - views amplify and reinforce radical beliefs and legitimise violent action over time.</p>	<p>Online</p>	<p>Echo chamber effect:</p> <ul style="list-style-type: none"> - Individual spends time on webpages where dissenting opinions are absent <p>Group polarisation:</p> <ul style="list-style-type: none"> - Individual starts using “us versus them”- rhetoric/dehumanising language about out-group <p>Legitimation:</p> <ul style="list-style-type: none"> - Downloading/consuming material that calls for/legitimises violence - Verbalised acceptance of/desire to use violence for political means
<p>Acceleration The time frame of radicalisation processes is reduced in the online sphere, when compared to traditional offline radicalisation processes.</p>	<p>Online</p>	<p>Acceleration:</p> <ul style="list-style-type: none"> - The time frame of the radicalisation process was (significantly) shorter than the average timespan of radicalisation (5 years) - (Very) short time frame from immersion in online milieus to conduction of plot - (Very) short timespan from immersion in radical milieus to outwardly more extreme behaviour.
<p>Operational phase</p>		
<p>Action triggering The individual experiences a catalysing moment which creates the impetus to commit acts of political violence.</p>	<p>Offline/online</p>	<p>Catalyst:</p> <ul style="list-style-type: none"> - Individual experiences an (offline or online) personal/social event that inspires them to act - Individual is inspired to act by other successful attack - Individual believes the ingroup is under attack due to experiences offline or online - Individual responds to (offline or online) calls for violence.

3.3.1 Document analysis

Qualitative document analysis is applied to trace the mechanisms via their observable indicators within the cases. I have cast a wide net in the data collection, using a variety of open sources in the compilation of information. Primary sources include court documents and online communications posted by the terrorist offenders. In addition to this data, it has been necessary to use secondary source data predominantly collected from newspaper articles, government reports, and academic articles. This follows the general assumption in process tracing that a

wide number of sources is necessary to shed light on the mechanisms that link conditions to outcomes (Gerring, 2007, p. 179).

In the collection of sources, it is important to be vary of potential biases in the source material. Considering primary information by the individuals themselves such as biographies, media – or police interviews or court testimonies, it is important to keep in mind whether their assertions are factual. These sources do, however, provide us with subjective viewpoints, and the possible biases are outweighed by the value of this data.

Peter Mangs has given extensive interviews to journalists, who have written books about his life and crimes (Gardell, 2015; Palmkvist, 2015). The authors of his biographies were given access to the documents from the extensive preliminary investigation into his case, as well as the political manifesto found in his belongings after his arrest. However, this manifesto is unfinished and was not a part of the original investigation and trial. My insight into the contents of the manifesto is thus limited to analysis and descriptions in the biography written by Mattias Gardell. Taking this into consideration, I will be mindful in my analysis that Mangs manifesto is presented through a secondary source which may be coloured by the interpretations or biases of the authors.

Breivik wrote a 1200-pages long manifesto outlining his radicalisation and attack planning process. Additionally, in the aftermath of the terrorist attack, hackers gained access to Breivik's thousands of emails, comments and posts on online websites. A large amount of this information has been made publicly available in court documents or published works (Stormark, 2012). This gives us opportunity to trace how he used the internet and social media.

Dylann Roof also wrote a manifesto. This, along with other evidence presented in the trial against him, is made public by the South Carolina district court. Available sources include his internet activity on extremist websites and evaluations into his mental health by experts who interviewed him. In his case, it is also necessary to rely on secondary sources such as media sources to a greater degree.

To ensure the validity of the findings in the analysis, sources must be employed critically.

Interviews and statements made by perpetrators are valuable sources in tracing the internal and external processes an individual undergoes when radicalising. These kinds of sources give us unique insight into otherwise difficult-to-research subjects.

One must, however, be wary of possible biases inherent in these types of sources. First and foremost, the truthfulness of the information provided by the perpetrators must be considered. Specifically addressing terrorist autobiographies, Altier, Horgan and Thoroughgood argue that “certain individuals may only detail certain aspects of their life history and further may be selective in what they choose to disclose information about”, possibly being more likely to disclose “what they consider exciting, interesting aspects of their life leaving the researcher lacking access to more mundane, but essential information” (2015, p. 92).

Still, the methodological advantage of accessing information from the terrorists themselves outweighs the potential biases. By receiving information directly from the perpetrators, it increases the likelihood that the data obtained is valid, giving “meaningful representations of the attitudes, perceptions, and experiences of those involved in terrorism, and that they are reliable reflections of the mindset of participants at that particular point in their developmental trajectory” (Altier, Horgan, & Thoroughgood, 2012, p. 89). In order to ensure the truthfulness to the sources, I make use of multiple sources of evidence and converge the data in the analysis. The study also employs information that cannot be externally verified, such as claims about feelings, personal motivations and experiences. While perpetrators may rationalise and colour their experiences and actions, their accounts nevertheless offer a lens through which to understand how terrorists construct their social realities, interpret their environments, and make critical life decisions. The decision to include such evidence is made because it has high analytical value.

When it comes to secondary sources, especially media sources, there is a danger of biased reporting. Thus, collecting and cross-checking (triangulating) data from a wide variety of sources is necessary in order to ensure robust findings (Gerring, 2007, p. 147).

3.4 Ethical considerations

The ethical considerations of the process tracing study were a central focus in the planning-phase of the thesis. In any academic study, the researcher has a responsibility to consider the protection of human subjects included (Brooks, 2013, p. 45). The protection of the subjects’ dignity, privacy and integrity is at the centre of academic research. The research project was submitted to and approved by *Norsk senter for Forskningsdata* (NSD) prior to the start of the project.

The study of online radicalisation processes involves an examination of mechanisms and processes that infringes on the privacy of the subjects involved. The project involves the collection and processing of sensitive personal data as well as data on “vulnerable subjects”. This is information of a type that would normally require informed consent by the registered parties. However, considering the registered are convicted terrorists, it is highly unlikely that contact can be made, and consent can be obtained. Therefore, through a longer dialogue with NSD, the burden presented for the individual by registering information without their consent is weighed against the value that the research presents to the general public. In the end, the study was exempted from the duty to provide information.

Several arguments formed the basis for the approval of the project, despite the wide ethical considerations; the nature of the individuals makes individually informing and collecting consent from each subject unfeasible – especially considering the time and resources available to me. As an extension of this are arguments about protecting the safety of the researcher from unnecessarily being put in dangerous or unwanted situations. Requiring informed consent from the terrorist subjects may therefore have prevented important research from being carried out. The weighing of these considerations is in line with EU General Data Protection Regulation (GDPR) and the Norwegian “Lov om behandling av personvernopplysninger” (personvernforordningen) art. 14.5b.

Nonetheless, several steps were taken to avoid unnecessarily burden the subjects. This includes doing process tracing analysis only on *convicted* terrorists, as well as anonymising the sample that was registered and described in 3.2. Case Selection. In addition, the information of the anonymous sample is collected and stored in *Tjenester for Sensitive Data* (TSD). TSD is a research platform available for researchers at the University of Oslo and other public research institutions. It provides a service for “collect, store analyse and share sensitive data in compliance with the Norwegian regulation regarding individual’s privacy” (UiO, 2017). The confidentiality of the sample was ensured by the TSD data file being password protected and stored in an access restricted area where only the supervisor and the student had access.

Furthermore, throughout the process, measures were taken to minimize the amount of data collected and stored, and unnecessary data were deleted continuously. All in order to avoid unnecessary burden on the subjects.

4 Introduction to the cases

4.1.1 Peter Mangs

Peter Mangs operated in Malmö from 2003 until his arrest in 2010. He conducted what he termed a one man “low-intensive terror war against multiculturalism” (Gardell, 2018, p. 793).

Targeting non-white citizens in Malmö, Mangs aimed at “igniting the starting motor of a full-scale race war” by amplifying tensions between classes and races in the city (Gardell, 2018, p. 793). Mangs shot people he had no prior connection to, changing weapon and modus operandi between each crime (Gardell, 2018, p. 796). From the beginning of his campaign, until his arrest, he killed three and attempted to kill twelve more victims. He was convicted of killing one immigrant man in 2003, and an ethnically Swedish woman sitting in a car with an immigrant man in 2010. In addition, he was charged with 12 counts of attempted murder. He fired shots at immigrant – or minority-owned businesses, homes and cars, leaving several people seriously injured (Sjödin, 2019, p. 7). All twelve counts of attempted murder took place in 2009 and 2010.

Despite having clear ideological motivations behind his attacks, Mangs was never tried as a terrorist. He had actively studied the tactics of terrorists before him, such as John Ausonius and Joseph Paul Franklin, and applied these tactics to the city of Malmö. Despite the fact that Mangs had clear ideological beliefs, and despite the presence of a manifesto on his computer, his deeds are often excluded from datasets of single-actor terrorism (although they are included in the RTV dataset), and they are largely ignored by society. Based on the ideological motivation behind his campaign, as well as the tactic of his attacks where he planned and conducted each alone with no affiliation to a wider network, Mangs is a lone actor terrorist in accordance with the definition by Spaaij (2010, p. 856).

4.1.2 Anders Behring Breivik

Anders Behring Breivik is a Norwegian convicted right-wing terrorist who conducted two attacks in Oslo, Norway on July 22, 2011. In the first attack, he detonated a vehicle-borne improvised explosive in the Norwegian Government Quarter in the centre of Oslo, killing eight people. The second attack took place at the island of Utøya, where the summer camp for the Norwegian Labour Party’s youth wing (AUF) was held. A total of 77 people were shot and killed, and a further 158 were wounded (Ravndal, 2012a, p. 6).

In terms of attack targeting, Breivik directly targeted political powers. Both the attack on the Government Quarter and on Utøya targeted the Norwegian Labour Party (Arbeiderpartiet), the traditional social democratic party in Norwegian politics, and the party in power at the time of the attack.

Prior to conducting his attack, Breivik published an ideological manifesto online, wherein he outlines the ideological ideas forming the justifications of his actions.

Breivik's ideology is predominantly anti-immigrant and anti-muslim. His justification for the attacks were that he held the so-called "cultural Marxists" in the political leadership responsible for Norway's growing multiculturalism and the undermining of Norway's traditional culture and race by allowing Islam to invade the country. He believed that "you cannot defeat Islamisation or halt/reverse the Islamic colonisation of Western Europe without first removing the political doctrines manifested through multiculturalism/cultural Marxism" (Breivik A. B., 2011, p. 5) .

In his manifesto, he claimed to be the commander of the group "Knights Templar", an organisation working in secret to rid Europe of multiculturalism. No evidence has been found of such an organisation existing, or of Breivik being a part of it. Thus, Breivik falls under the category of the lone actor terrorist. This is supported by the ideological motives of his attacks, as well as going through the process of radicalisation without outside influence and conducting operational planning without maintaining plot-relevant social ties to avoid discovery by authorities.

4.1.3 Dylann Roof

Dylann Roof is an American white supremacist terrorist who on June 17, 2015 shot and killed nine African American churchgoers and injured one in the Emanuel African Methodist Episcopal Church in Charleston, South Carolina.

Roof's ideology was rooted in white supremacy. In the investigations that followed the attack, it was discovered that Roof had uploaded a racial manifesto to his website. The document outlined Roof's motive for attacking the church, explaining that the intention of the attack was to increase racial tensions across the nation, as well as seeking retribution for perceived wrongs he believed African-Americans had committed against white people (US District Court, 2016).

Considering his ideological motivations, the attacks were done with the goal to harm and intimidate the African-American population, as well as to ignite racial tensions and start a race

war, the attacks are clearly a case of terrorism rooted in white supremacy ideology. Dylann Roof fits the profile of lone actor terrorism, conducting an attack influenced by the ideology of white supremacism, but who had no clear connections to established white supremacy groups.

5 Analysis

In the theory-chapter, I described and discussed six mechanisms that might illustrate how the internet impacts the process of radicalisation into violent extremism. In this chapter, I present the findings from the empirical analysis done for each of these six mechanisms.

5.1 Compensation

The mechanism of compensation assumes that radicalisation stems from both broad grievances that push the individual to seek alternative world views, and pull factors that attract them (Borum, 2011, p. 57). Individuals who experience triggers, needs and vulnerabilities may over time experience disillusionment with the political system or dissatisfaction with the status quo. Compensating this, the individual may go online to seek alternative worldviews, or vent their frustrations. In order to make this mechanism traceable, I first try to identify indicators of individuals experiencing pre-radicalisation triggers, need or vulnerabilities (trauma, personal crisis, alienation, disillusionment or a history of aggression). Next, I examine the empirical material for behaviours that indicate individuals compensating for these vulnerabilities through online interaction through participating in discourse, venting or consuming information.

5.1.1 Peter Mangs

It is possible to pinpoint several experiences that may be indicative of pre-existing triggers, needs and vulnerabilities that ultimately may have activated a compensation mechanism throughout Mangs' early life and young adulthood.

His parents divorced early and Mangs and his sister were raised by his mother who worked late hours, leaving him to care for himself (Gardell, 2018, p. 794). Mangs' sister became addicted to drugs in her early teens and died from an overdose when Peter was 17 years old. In his memoirs, he wrote about his sister's death, seemingly blaming Swedish social democracy. He wrote "she died in your humane society, where everyone has the right to live, even the addicts", and continued "someone will pay for this" (Palmkvist, 2015). It is possible that the death of his sister fuelled Mangs' disillusionment with the social democratic society that would later be evident through beliefs in anti-state conspiracy theories and activity primarily on conspiracy websites.

For Mangs, compensatory behaviour can most clearly be linked to experiences throughout his life that caused personal crisis due to loss of status or impacted his sense of self. These are experiences that Mangs himself referred to as "frustrations" (Gardell, 2015, p. 344).

Mangs struggled with neurodivergence in the form of Asperger's disorder. Here, I note that lone actor terrorists are the most likely out of all categories of terrorists to be suffering from mental illnesses, and Asperger's disease is one of the most common mental disorders among lone actors (Corner & Gill, 2015, p. 30). It is highly likely that this disorder impacted his ability to make and sustain interpersonal relationships, ultimately causing feelings loneliness and alienation from society. This will be explored more in depth under section 5.2. Isolation.

Mangs struggled in school at several points throughout his life. He was accepted into music college but was asked to leave after a year because he had skipped too many classes. Several years later, in 2003, he would also fail the final practical examination of nursing school.

Mangs played in a band and started his own business for building Bases in 1995. He moved to the USA to live with his father in 1996, hoping to boost his musical career. He recorded an album and sold a few basses, but was ultimately unable to start a successful musical career.

In USA, Mangs' father introduced him to the South Florida gun scene. This is a subculture in the American South "which deals with conspiracy theories, the militias, and patriots" (Gardell, 2015, p. 28). During this period, he read large amounts of white supremacy literature, being especially interested extreme-right propaganda literature such as "The Turner Diaries", as well as militia manuals like The Citizen's Rule Book.

According to Palmkvist, it is "a changed Peter Mangs" who moves back to Malmö; "He is older, more bitter, tired and lonely than before he left to seek happiness in the United States". After returning, he continuously seemed to complain about not having a family, career, or money (Palmkvist, 2015). Relating to this fact, one can note that unemployment and financial stress often can be tied to a vulnerability towards radical ideologies.

Mangs using the internet for extremist purposes can be traced back to 2001, using it for research to write his political manifesto (Gardell, 2015, p. 96). It is of note that Mangs did not initially become exposed to radical milieus through self-radicalisation on the internet but was rather introduced to alternative world views through face-to-face interaction with milieus in USA. Furthermore, Mangs did not own a personal computer at the time of his initial radicalisation, likely impeding his ability to compensate for vulnerabilities through online use.

I have not found that Mangs used the internet to compensate for offline struggles. While the empery clearly shows that he suffered from a wide variety of pre-existing vulnerabilities, there

is no indication in the empery that he compensated for these vulnerabilities by seeking out alternative world views online. In this case, the mechanism is not active.

5.1.2 Anders Behring Breivik

Anders Behring Breivik was born in London in 1979. His parents separated when he was one year old, and he moved with his mother and half-sister to Norway.

Examining his childhood, it is possible to identify several indicators of pre-existing vulnerabilities that could lead to compensation behaviour.

When Breivik was two years old, his mother was granted a weekend-home for the boy, whom she described as “a nasty child that wreaked havoc and tormented her” (Olsen & Lie, 2016). While his mother retained custody of Breivik throughout his childhood, the family had several visits from the Norwegian Child Protective Services who stepped in due to negligent conditions in the home, though nothing came of these (Østli & Andreassen, 2011). Experts have suggested that his childhood experiences impacted his behavioural development, causing anti-social tendencies. A four-year-old Breivik was described by an expert as “lacking emotions, with a weak relationship with friends, withdrawn” (Olsen, 2017).

Jumping forward to his pre-trial psychological evaluation, two psychological evaluations reached different conclusions about Breivik’s mental health; in the first evaluation he was diagnosed with paranoid schizophrenia, while a second evaluation concluded that Breivik was criminally sane but suffering from one or several personality disorders. It is possible that Breivik’s personality disorders may have impacted his ability to make significant relationships, leading to feelings of alienation. The alienation indicator can be traced throughout his life until the preparations for the attacks began. The impact of this alienation will be further examined under section “isolation”.

Similar indicators of personal crisis can be traced throughout his teenage years. A central characteristic of Breivik’s pre-radicalisation life is a recurrence of failed ventures, often stemming from an inability to understand social cues, possibly due to his developmental issues.

For example, Breivik immersed himself in Oslo’s hip-hop milieu and started tagging. He was a part of a group who tagged together for a while, but was eventually pushed out, becoming an outcast both in the “gang-milieu” and in school (SKUP, 2011, p. 9). In his class yearbook, someone wrote “Anders used to be part of the “gang” but then he made enemies of everybody”

(Seierstad, 2015, p. 81). He dropped out after the second year of high school, pursuing no further formal education.

The pattern repeated itself some years later, as Breivik became a member of the youth party to the Norwegian Progress party (FpU) in 1997. He would remain a member of both the FpU and The Progress Party (FrP) until 2006. During his time in the party he was especially active on the party's online political forums, contributing more than two hundred articles to the party's blog (Turrettini, 2015). Notable change in his belief in the political system consistent with disillusionment may have come in 2002-2003, when Breivik experienced perceived failure in his political ambitions. He was nominated to enter the political list as representative for the party in the 2003 city council election, but was not called in for an interview. After this, his posts on the forum became increasingly negative, claiming *"What is sad with the political system in Norway, is that it often isn't the most competent who get political power, but those who are best at networking."* (Seierstad 2015, p. 105). It seems that the inability to gain a leading position in the party negatively impacted his belief in the mainstream political system and caused a disillusionment with authorities. It was also after this point that Breivik's posts became overtly antagonistic towards Islam and socialism; in his last post on the party forum, he predicted civil war once the Muslims were in the majority in Norway (Seierstad 2015, p. 117).

The last indicator of pre-existing vulnerabilities believed to have activated compensation behaviour for Breivik is the impact of failures of his different business ventures. After he left commercial school without a degree, he pursued several different illegal businesses, including selling bogus university degree certificates from 2003 until 2006, operating a mailbox company and selling software (Hartleb, 2020, p. 82). Following the failure of his last business venture and having to move back in with his mother to save money, Breivik withdrew from social life almost entirely, receding into online gaming in 2006 – indicating him seeking affiliation in alternative social online environments.

Thus, it seems reasonable to conclude that the Compensation mechanism is active in Breivik's case. Indicators of vulnerabilities were clearly present throughout his life; experiences of neglect in his childhood and undiagnosed disorders that may have ultimately impacted his ability to make or sustain social relationships over time leading to (real or perceived) rejection from peers. Furthermore, he seemed to have suffered from a wide range of frustrating experiences, likely impacting his sense of self leading to personal crisis. He seems to have compensated for these vulnerabilities though seeking belonging in several different milieus throughout his life,

including the Oslo graffiti milieu, the political milieu in the Progress Party where large parts of the operated online. His seeking affiliation in alternative milieus such as online games seems to be an extension of similar compensatory patterns offline. Ultimately, while indicators of offline compensation can be found, enough indicators of online compensation are present for me to conclude that the compensation mechanism is active.

5.1.3 Dylann Roof

It is possible to identify indicators of trauma in Roof's childhood and young adulthood, as well as indicators of personal crisis and alienation from peers that coupled with withdrawal from social life and an active use of online extremist sources point to the presence of a compensation mechanism.

Roof's parents divorced early in his life and Roof's father remarried in 1999 to Dylann's stepmother Paige Mann who had been the primary caretaker for Dylann and his sister when they lived with their father. They were married for 10 years before divorcing in 2011. In the divorce papers, Paige claimed – and submitted photos to prove – that Roof's father had physically and emotionally abused and controlled her (Rother, 2016). One cannot know whether Roof's father was ever abusive towards Dylann himself, it is very possible that growing up in an insecure home environment where one parental figure probably was subject to abuse from another became a traumatic event that impacted his mental health beyond this point.

The instability in the home seemed to extend to Roof's education. In nine years, Roof attended seven different schools. He repeated the ninth grade before ultimately dropping out of school in 2010, transferring to an online charter school that his father helped set up (Robles & Stewart, 2015).

Unsealed court documents shed light on Dylann Roof's mental health; one forensic psychiatrist found that Roof showed signs of both “a Schizoid Personality Disorder, depression by history, and a possible Autistic Spectrum Disorder,” (Smith & Hawes, 2017). These personality disorders impact an individual's desire or ability to make and sustain social relationships, often defining an individual who is detached from society. Roof also had a previous criminal history, having been arrested in March of 2015 in possession of illegal drugs or controlled substances. The forensic psychiatrist diagnosed him with a Mixed Substance Abuse Disorder, which may be interpreted as an indicator of personal crisis.

Between dropping out of school and the attack on the church, Roof lived ‘on and off’ with his father while he spent most of his time in unemployment, taking drugs and playing video games. According to Roof’s mother, he had spent the years between 2010 and 2015 “mostly in his room” (Robison, 2016, p. 9). In his socially withdrawn state, he spent several years playing video games, before starting to immerse himself in radical online milieus in 2013.

Thus, Roof used the internet to compensate for offline vulnerabilities. The empery shows that he struggled quite extensively with mental health issues that caused him to withdraw into his room and cut off contact with the outside world. Throughout all this, he used the computer as a window to the outside, using it as a tool for learning - not solely about extreme world views. Similarly, he spent a lot of his time playing video games, indicating that he sought affiliation with non-extreme milieus as well. Thus, the mechanism of Compensation is active.

5.2 Isolation

The isolation mechanism describes the process of individuals who experience social alienation and disembeddedness seeking alternative communities online. Over time, the isolation may grow as individuals become increasingly absorbed into online communities. Identifying this mechanism involves examining available information about the online and offline interactions of the individuals, attempting to identify whether a deterioration of offline relationships has taken place. This is coupled with examining whether the individuals have increased their online presence, measured in the time spent online. The deterioration of offline relationships may take place over time and may be helped or accelerated by the individual becoming increasingly convinced of the truth of extremist ideas found online.

5.2.1 Peter Mangs

Peter Mangs had significant difficulties with social interaction throughout his life. He was diagnosed with severe Asperger’s syndrome in 2009. It is highly likely that this disease impacted his ability to make and sustain interpersonal relationships, ultimately causing feelings loneliness and alienation from society.

The first indicators of behaviour indicative of social withdrawal can be found in music college. While he had done well in school up until this point, he started failing subjects and skipping classes. In his memoirs he calls himself “too human to fit into an efficient system”, and according to Palmkvist, he sought therapy due to his struggles in social settings (Palmkvist, 2015).

Returning to Sweden from USA in 1999, I find even clearer indicators of social disembeddedness. Mangs had difficulties with reintegration into Swedish society, growing increasingly introverted and lonely as time passed (Tamas, 2012, pp. 66-67). This growing feeling of disembeddedness seems to coincide with an increased presence in the growing world of interactive websites. The first traces of presence on online networking sites is around 2003 on Myspace, then around 2005 on Youtube. Mangs initially used both websites for sharing and promoting his music, as well as interacting with other musicians. Later, he would start participating in discourse on radical online forums using a variety of usernames (Hartleb, 2020, p. 93). The online activity would escalate from the fall of 2008 until he eventually “spent hundreds of hours in online forums” (Gardell, 2015, p. 231). This is consistent with online immersion.

Indicators of offline detachment are also present. While he, unlike the other cases, was able to hold a job for several years, he pursued work with little social interaction. He reached an agreement with his employer to change his work schedule to minimise social interactions with his co-workers. He would quit his job in 2006. This is consistent with indicators of gradual withdrawal from offline socialisation.

However, while Mangs can accurately be described as disembedded, he was not entirely isolated from other people at any point in his radicalisation process and terrorist campaign. For example, he was a member of a support group for people diagnosed with Asperger’s for several years, had several close friendships and was reemployed at his workplace in 2008. He was quitting again in 2009, before his campaign escalated. Furthermore, throughout his campaign, he “leaked” information about his actions to a chosen few; his father Rudolf Mangs was kept informed about Mangs’ criminal acts as he conducted them, even helping him acquire weapon parts from USA (Tagesson, 2015).

The question can thus be asked whether Mangs qualifies as a lone actor terrorist. It is known that Mangs operated individually throughout his campaign, he did not conduct his acts as an extension of an established terrorist network, he was alone in planning and conducting each attack. While his father received information about some of the acts after he had conducted them, there is no indication that he had knowledge of Mangs’ plan to start a race war. More likely, his helping him to buy illegal weapon parts had to do with his father opposing the strict weapon rules in Swedish social democracy. Thus, Mangs is still a lone actor following the definition used in this thesis.

To conclude, Mangs seems to have struggled with making and sustaining interpersonal relationships throughout his life, but not to the point of total social disembeddedness. He sustained social ties with both family and friends who held the same ideological beliefs as him. Furthermore, from what we know about his online presence, it does not seem that he spent more time in online communities than he did offline. While we know that the time he spent online would increase a lot as time passed, there is not enough support in the empery to conclude that the isolation mechanism is fully active. Thus, I conclude that the mechanism is partly active.

5.2.2 Anders Behring Breivik

In the case of Anders Behring Breivik, his social life before he conducted his attack seems to have been characterised by weak to no close social relationships. In the interviews conducted by police after the attacks, Breivik was described as a “... *loner, with little discernible emotion and no close friends.*” (TV2 20th April 2016).

That is not to say that Breivik was entirely socially isolated throughout his life. He had close friends; according to childhood friends who witnessed during the trial described him as a “normally social person” (Børringbo, Skjervold, & Melgård, 2012). Others described him as the social glue in his gang of friends.

He seems to have experienced alienation from his family, especially his father, whom Breivik had sparse contact with from his teenage years (Seierstad, 2015, p. 77). He also had a clear disdain for his mother and sister, writing in his Manifesto “Both my sister and my mother have not only shamed me but they have shamed themselves and our family. A family that was broken in the first place due to secondary effects of the feministic/sexual revolution,” (Breivik, 2011).

During his trial and in his manifesto, Breivik set forth several allegations that he had network connections with other extremists through the group Knights Templar. He alleged that he became radicalised on a trip to Liberia in 2002, where he met a Serbian war hero who introduced him to the Knights Templar organisation. If this was the case, it would indicate that Breivik’s radicalisation process and social networks had offline elements as well, indicating a lower degree of offline immersion. However, the prosecution found it likely that he went to Liberia in order to set up a blood diamond company – something that can be read as another attempt by him to gain success and notoriety (Ravndal, 2012b, p. 18). It does not seem to negate isolation as an active mechanism.

The clearest indication of social withdrawal can be identified in 2006. This is after his attempts at starting and maintaining different online companies had failed, and he had to move back in with his mother to save money. This point marks a clear shift in Breivik's social life. While he had struggled maintaining social relationships prior to this point, he did have some friends, while after he moved in with his mother, "he had gone into a state of withdrawal and isolation" (Turrettini, 2015). He has stated that it was at this time the thought of martyrdom first stuck him. He explained the extreme isolation that followed this point as him taking a year off to play videogames as a "martyr gift" to himself. After moving in with his mother, online games became prioritized over social life. He primarily played the massive multiplayer online roleplaying game, World of Warcraft, where he became guild-leader, spending an inordinate amount of time playing between 2006 and 2011.

According to his friends, Breivik had a normal social life until 2006. After this, he would largely avoid social contact, despite them reaching out on several occasions (Seierstad, 2015, p. 170). He did, however, maintain sporadic contact with friends as late as in 2011 out of a wish not to be perceived as totally isolated and antisocial. In his notes, he wrote that such isolation could "defeat the whole purpose [of the terrorist attack] if you end up losing the love for the people you have sworn to protect. Because why would you bless your people with the ultimate gift of love if every single person hates you?" (Seierstad, 2015, pp. 253-254).

There are clear indicators that Breivik used self-imposed social isolation and extensive online gaming to compensate for his weak social embeddedness in real life. According a fellow gamer who gave testimony in court, Breivik would spend at the most 16 hours per day playing video games (Ravndal, 2013 p. 178). Breivik was successful in the World of Warcraft, he rose quickly to the rank of leader in a guild and was well-liked among his peers in the game. Within the virtual world, he was able to sustain relationships and hold leadership roles to a greater degree than he had been able to in real life.

Breivik became increasingly absorbed with online gaming. In a short amount of time, it seems that the community found in his video games had entirely replaced his social life. By Christmas 2006, he was "playing full time", celebrating all red-letter days within the game rather than in real life (Seierstad, 2015, p. 137). The degree of "absorption" became especially clear when he in 2007 became accepted as a member of the Freemasons. Despite having wanted to become a member for a long time, he continuously neglected to participate in meetings in favour of playing online games. He dropped out after only a few meetings.

Breivik's social isolation would continue from 2006, up until he conducted the violent attacks in 2011. After around two years of solely playing video games, there seems to have been a shift to activity on online extremist websites and his own writing project (see: echoing), he remained withdrawn from real life throughout the period.

To conclude, the isolation mechanism is active for Breivik. It is possible to trace several instances of (perceived) rejection from peers that may be indicative of isolation; for example from the graffiti milieu, school, and the progress party. While he did have some friends, and had sporadic contact with them, the indicators for offline detachment seem to be present. This is assumed to have facilitated an eventual integration in online extremist milieus, and a greater susceptibility to the extreme thoughts.

5.2.3 Dylann Roof

When it comes to Dylann Roof, social-communication challenges were reported from childhood. Several experts have diagnosed Roof with an autistic spectrum disorder, a diagnosis that is shown to have impacted his ability to maintain and develop appropriate social relationships with people in his age group (Allely & Faccini, 2018, p. 9). This disorder coupled with struggles with mental health issues would continue to worsen into adolescence and young adulthood. It would over time culminate in several years of almost absolute social isolation where Roof's only connection with the outside world would be through the internet.

The clearest indication of isolation can be identified in 2010 when Roof experienced a worsening of his mental health (social anxiety, delusional beliefs, disordered thinking, paranoia), eventually causing him to "not want to leave his room" (Loftin, 2016, p. 43).

This point marks a shift in Roof's social life, as this seems to be the beginning of his isolation. As his mother describes it, he "retreated to his upstairs bedroom and essentially dropped out of society. Indicators of offline detachment are present including Roof withdrawing from school, starting an online course instead, he let go of the friendships and withdrew from most face-to-face contact including with his family (Robison 2016, pp. 9-10). His uncle attempted to "mentor" him in order to help him get a job and break his social withdrawal but was rejected, and according to his sister, he never responded to the invitation to her wedding (Flitter & Allen, 2015).

This isolation was coupled with an increased online presence, predominantly through video games. His sister estimated that he had “essentially been living in his room on his computer for about five years before the shooting (Allely & Faccini, 2018, p. 13).

Roof’s case makes the isolating effects of the online medium evident. The internet facilitated absolute withdrawal from offline social interactions, allowing him to stay in his room almost exclusively. In the five years he spent in isolation, Roof “looked to the internet for answers to virtually every question he had, whether sexual, medical, political, or about world events” (Allely & Faccini, 2018, p. 19). One can ascertain that the social isolation and the reliance on the internet for information facilitated a radicalisation process where Roof became exposed to large amounts of extreme content online, with interest gradually swelling in the absence of interpersonal relationships, work or other social hobbies” (Loftin, 2016, p. 49).

To conclude, we can very clearly see him struggling with making and sustaining interpersonal relationships throughout his life. Indicators of detachment are present with Roof withdrawing almost fully from social life at the age of fifteen. The isolation was coupled with heavy online precedence both in terms of extreme and non-extreme milieus. The isolation mechanism is active in Roof’s case.

5.3 Facilitation

The mechanism of facilitation describes the aspects of the online sphere that are often said to drive radicalisation through facilitating the exposure to and interaction with extremist content. The availability of information in the online sphere may influence the individual’s radicalisation process, either in terms of facilitating the ideological aspects of radicalisation i.e. developing extremist beliefs, or through facilitating the operational aspect, i.e. aiding in the planning and execution of a terrorist attack. Identifying the presence of facilitative mechanisms is relatively straight forward, it involves examining information about the individual’s ideological and operational process, and identifying whether online interaction or use has had an influence.

5.3.1 Peter Mangs

Evidence suggest that ideological facilitation of radicalisation was shaped by a variety of different influences, not only online influences.

First and foremost, Mangs’ ideological beliefs can be traced back to influence from his father and the radical milieus he was introduced to in USA. Rudolf Mangs was a devoted nationalist

who loathed Sweden's social democracy and staunchly believed in the superiority of the Aryan race (Gardell, 2018, pp. 795-796). He moved to USA in 1990, seeing himself as a political refugee escaping socialism.

The influence by his father ignited Peter's interest in German Philosophy and ideologues like Freidrich Nietzsche and Adolf Hitler already from his adolescence. His ideology was further developed when he was introduced to the gun-culture and militia scene in USA.

There is evidence to suggest that Mangs had already become radicalised during his time in the USA. According to Gardell (2018, pp. 795-796), Mangs returned to Sweden believing that "If racial aliens settled in his territory where white culture should abide, he had the right and duty to kill to reinstall order".

Long after he had left USA for Sweden, his ideology would be characterised by the milieus he had been introduced to there; the Southern American subculture, the conspiracy theories that proliferated there as well as extremist texts such as *The Turner Diaries* that has become a parable for race war in extreme-right milieus.

Experts disagree on when Mangs first decided to conduct a terrorist campaign with the goal of starting a race war. According to Gardell, he started systematically planning his race war soon after having returned to Sweden in 1999. Meanwhile, Palmkvist (2015) argues that Mangs had not fully built his ideological belief set until around 2009, when his terrorist campaign escalated. The empery seems to support Gardell's belief that Mangs' started planning a larger terroristic campaign around the turn of the century; he started working on the document that would become his unfinished political manifesto "*Den Germanska Filosofin*" around 2001. The manifesto bears testimony to Mang's early esoteric national socialist ideology; laying out the mission of protecting the Germanic gene pool, securing the race's survival and igniting the spark of resistance in the Aryan elite that would "save the country", all which forms the starting point of Mangs' race war (Gardell, 2015, p. 348).

The first traces of online facilitation of radicalisation can be found in 2001, around the time he started working on his manifesto. In those early days, he predominantly used the internet for research. Mangs found it to be an easier source of information than books, which he often found "unbearably boring and intellectually insulting" (Gardell, 2015, p. 95).

For Mangs, the internet became a gold mine of information "that those in power did not want the Swedish people to learn" (Gardell, 2015 p. 95) Mangs himself stated that the internet

became his preferred platform for information gathering for its provision of ease of access to information (p. 95). Mangs did, however, also consume a large amount of “traditional” extremist literature, such as Mein Kampf, David Duke’s My Awakening, Aldous Huxley’s Brave New World and Sun Zi’s The Art of War.

The first specific extremist webpage there is information about was Radio Islam, which “revealed hidden connections and the Jewish networks”, providing Mangs with an "encyclopaedia" of the Swedish Jews that the webpage claimed to be governing the country behind the scene (Gardell, 2015, p. 96).

Mangs would spend hundreds of hours online; searching for and consuming information about conspiracy theories remained central in his ideology. He subscribed to conspiracy blogs on Youtube, and started using the websites Politiskt Inkorrekt, and Vaken.se a platform for conspiracy theorists, inspired by the American “truther movement” (Gardell, 2015, p. 238).

Mangs’ operational facilitation is far easier to trace. Mangs employed the “Franklin model” of political violence, wherein he targeted people “with whom he had no prior relation, choosing his victims by their names or looks, altering city quarters, guns and modus operandi, using a bicycle as a getaway vehicle» (Gardell, 2018, p. 797).

While internet facilitated several operational aspects of Mangs’ campaign, it does not seem like this was the case in the 2003 murder. Instead, he had chosen a random apartment complex and apartment based on the names on the doorbells sounding foreign (Sæther, 2016). This indicates that he did not adopt the operational tactics of online recognisance until the escalation of the campaign in 2009 and 2010.

Examining his home computer following his arrest, investigators found large amounts of information about possible targets for his campaign that Mangs had managed to accumulate through online radical websites and his own investigations. Mangs used the internet actively in the planning of his attacks. He mapped his victims through the webpage Ratsit.se, which provides a register of all nationally registered Swedes, their home addresses, dates of birth and more. He used extremist sites to build lists of “targets”; one document was found that included a list of famous people “allegedly” of Jewish descent; this is a list that has been circulated on online right-wing extremist websites. Additionally, a list was found titled “List of Villains” which included addresses to local politicians and local gang members. Mangs had been able to find names, addresses and even social security numbers of his targets through free online sources.

As such, it is reasonable to conclude that the internet had an important operational facilitative role in Peter Mangs' campaign of political violence; while it seems to have had less of an impact in creating his ideological identity, Mangs used the web actively to develop his ideology beyond how it was in the beginning of his campaign, indicating that the mechanism might only be partly active in facilitation of ideology. In terms of his operational planning, an over-time development can be traced between the murder in 2003 and the escalation of attacks in 2009. One explanation for this may be that the kind of internet sources we know Mangs used to select his victims were not available in 2003; with Vaken.se being established in 2004 and Politiskt Inkorrekt in 2008 Even ratsit.se is younger than his first terrorist attack, being established in 2006¹.

Thus, while there are diverging evidence of facilitation in the case of Mangs, it is most likely explained by his attacks starting early in the age of Web 2.0 with an unavailability of the same plethora of sources that were available in the other cases, or later in Mangs' own campaign.

5.3.2 Dylann Roof

There was a clear echo chamber effect in the case of Dylann Roof. After his initial exposure to extremist ideas in 2013, he largely spent time in ideologically homogenous websites and forums shielded from opposing voices.

The comments made by Roof are clearly coloured by group polarisation, using strong language against the "out-group". For example, he created a profile on the extremist website on Stormfront in February 2015 under the username "LilAryan". On the forum, he wrote comments discussing a documentary about neo-Nazi skinheads. In another post, he wrote "I consider myself very well-versed in racism," (USA V Roof, 2015b). His comments were not solely concerned with African Americans; in his writings he expresses negative views and stereotypes about homosexuality, women, and Jews and other minority groups (Loflin, 2015, p. 25).

While it is not proven, it is strongly suspected that Roof spent much time on the extremist forum "The Daily Stormer", visiting and commenting under the name "AryanBlood88". Clear parallels can be drawn between Roof's manifesto, and comments made by the above-mentioned username on "The Daily Stormer". This suggests that either Roof wrote the posts, or he visited

¹ The online archive of webpages "the Wayback Machine" was used to determine the age of the websites (Internet Archive, 2020).

the site often enough to have plagiarised posts almost verbatim for his manifesto (Klein, 2017, p. 69).

On the other hand, it seems like the interaction he had with online extremist literature was “mostly one-way” with Roof consuming a great deal of written material, but “contributing little original thought” (Robison, 2016, p. 12). When he wrote comments, he did not participate in discourse where his comments were reciprocated. This one-way communication seems to have been evident in his manifesto as well. He makes statements like “white people are superior,” or “blacks are lazy”, indicating group polarisation. It is of note that he does not back those words with any original thoughts or examples from his own life (USA V Roof, 2015a).

The evidence shows that Roof verbalised that he wanted to commit violence against black people prior to the attack. This seems to be an indicator of the legitimising effects of echo chambers on the internet (Knapp, 2017).

Considering the similarities between his political manifesto and his ideas and comments on extreme-right forums, the importance of the echo chamber effect for identity-building and the legitimisation of violence is clear in the case of Roof. The echoing mechanism is active.

5.3.3 Anders Behring Breivik

There are indications that Breivik’s radicalisation process started early in his life, and was not initially facilitated by the internet.

Breivik grew up in a conservative part of Oslo, where the democratic socialist Labour party was largely unpopular (Seierstad, 2015, p. 35). It is possible that his hatred of socialism later in life started as a scepticism shaped by his social environment.

Already by the time he was active in the Progress Party, his online comments demonstrated scepticism towards socialism and as its role in what he perceived as a deliberate Islamisation of the West. His posts also indicated “irrational fear of Muslims and Islam”, describing Islam as a “culture that breeds terrorism, discriminates against women, and violates basic human rights” (Ravndal, 2013, p. 175). At this time, however, he also seemed to separate Islam as a religion from the violent subcultures within it; writing in 2002 that “it is important to stress that Islam is a great religion (as is Christianity) and that Muslims in general are good people” (Turrettini, 2015).

His online comments became markedly more radical after he failed to reach a leading position in the Progress Party in 2002. His posts became increasingly sceptical of contemporary political structures, believing that “it often isn’t the most competent who get political power, but those who are best at networking” (Seierstad 2015, p. 105). It was also after this point that Breivik’s posts became overtly antagonistic towards Islam and socialism; in his last post on the party forum, he predicted civil war once the Muslims were in the majority in Norway (Seierstad 2015, p. 117).

These posts are notable because they go far in echoing the type of counterjihad rhetoric that is prevalent in extreme-right networks, and that were prevalent in his manifesto. The comments were written years before Breivik started immersing himself in extreme-right literature and extremist forums. This indicates that the grievances and the identification of “the other” (socialists, immigrants) started before his immersion into radical online websites.

Breivik started writing his manifesto in 2007, a year after withdrawing from society in self-imposed isolation. The manifesto is a concoction of his own thoughts and texts taken from various ideologues, connected by the common idea that Europe is facing a threat of invasion from Islam. The compendium is based on exclusively internet-sources, illustrating that the internet played an important facilitative role in his radicalisation between 2007 and 2010.

While the compendium is a valuable source of insight into his gradual radicalisation, it is important to consider that Breivik is an unreliable narrator and that it is likely that many of his claims are lies and deviations from the truth to bolster his image.

For example, in the compendium, he claims to have started planning armed resistance around 2002 or 2003, describing his years of unemployment and self-imposed isolation from 2006 as a “martyr-gift” to himself (Brustad & Meldalen, 2011). If this is the case, this indicates that Breivik had been radicalised to the point of violent extremism as early as 2006 – at least one year before any traceable activity on radical forums and websites can be identified. This would indicate that the mechanism of ideological facilitation, while present insofar as he used the internet to collect information for his manifesto, was not actually decisive in his radicalisation process into violent extremism. However, according to the police investigation, he started planning the attacks as late as 2009 or 2010. This suggests that while Breivik had already started his radicalisation process prior to being exposed to online extremist literature and discourse, the internet would become important in the shaping and development of his ideology up until he started the operational phase.

When it comes to Breivik's operational planning for his attack, this was largely facilitated by the internet. Pantucci describes Breivik's operational activities:

When planning his trip to Prague to buy weapons he used a Hyundai discussion forum for tips on how to make the trip from Oslo to Prague by car. He reports that alibaba.com, a Chinese website linking Chinese manufacturers to global retailers, is a particularly good source of chemicals and materials. He also used eBay and a number of sellers in the UK to purchase chemicals and tools.[16] He uses a wide array of different websites to locate different tools and to collect information on building bombs, chemical mixtures, ideal body armors to use and so on. In addition to using the internet as a source of material, he claims to have raised much of the money he uses in his action through establishing companies whose business model is based around e-commerce (2011, p. 36).

Breivik gathered all the information he needed to conduct a terrorist attack on the internet. He claims he downloaded and studied several hundred bomb-making manuals from the internet in order to learn how to produce a bomb from diluted fertiliser. I find that the mechanism of facilitation was instrumental in his ability to effectively and covertly plan and conduct his terrorist attacks.

To conclude, there is opposing information concerning the facilitation of Breivik's ideological beliefs. While it seems that the internet played an important role in the facilitation of his ideological beliefs, there are indications in his posts on the progress party forums that his counterjihad ideas were established prior to his immersion in online radical discourse. The conclusion can thus be drawn that the mechanism for ideological facilitation is partly active. When it comes to operational facilitation, the planning of his terrorist attack was entirely reliant on information gathered from online sources, thus the mechanism is active.

5.3.4 Dylann Roof

The internet seems to have facilitated Dylann Roof's radicalisation process almost in its entirety.

Prior to conducting his attack, he published a manifesto on his own website thelasttrhodesian.com. The document suggests he was likely radicalised as a result of exposure to racist ideological thinking online. Though there is some limited evidence his father may have

had racist or extreme views, Roof began the manifesto by writing that he “was not raised in a racist home or environment” (Loftin, 2016, p. 12; USA V Roof, 2015a).

Instead, his first known encounter with white supremacist ideology came after learning about the Trayvon Martin case and the following civil unrest in 2012. Trayvon Martin was a black teenager who, on the evening of February 26, 2012, was shot to death by neighbourhood watch coordinator George Zimmerman. Roof wrote that he believed Zimmerman was in the right.

In his online manifesto, Roof explained that what awakened him to issues of race was hearing discussions about this case. He wrote:

[...] this prompted me to type in the words “black on White crime” into Google, and I have never been the same since that day. The first website I came to was the Council of Conservative Citizens. There were pages upon pages of these brutal black on White murders. I was in disbelief. At this moment I realized that something was very wrong (USA v. Roof, 2015a).

The website “Council of Conservative Citizens” displays bogus crime statistics showing that “hundreds” of black on white murders were being ignored by the media. Entering this site became the catalyst for a fast-paced radicalisation process wherein Roof became deeply absorbed in the world of racist blogs and forums. There are no indications that Roof held extreme-right or white supremacist beliefs prior to discovering The Council of Conservative Citizens.

Following his “awakening” to racial ideology, Roof started searching for information online that confirmed his biases. Through internet searches, he discovered new radical forums that he became a member of, indicating presence of the echoing effect (see: echoing) that in turn furthered his radicalisation.

Roof also made attempts to communicate with other extremists indicating that facilitation of communication was present. He sent seven private messages, including to members in the Columbia, S.C. area, seeking to meet fellow racists. There is no indication that he was successful in meeting any users offline.

When it comes to the planning of the attack, Roof was able to legally acquire the handgun he used in the attack from a gun-store, using money he received from his father on his birthday. While it is possible that the choice of the Charleston Church as the target of the attack was inspired by information he read online, as he wrote in his manifesto; “I chose Charleston

because it is most historic city in my state, and at one time had the highest ratio of blacks to Whites in the country” (USA v. Roof, 2015a). However, no evidence can be found to confidently conclude that operational facilitation was present.

To conclude, the internet played a clear facilitative role in the radicalisation of Dylann Roof. He formed his racial ideas entirely through exposure to extreme content and ideologies on the internet. By his own words, he had not been exposed to such ideas in childhood. With his ideology having been fully built on online information, we can conclude that the mechanism of ideological facilitation is active. When it comes to the operational phase, the planning and execution of his terrorist attack seems to have taken place almost entirely offline. There is no indication that the operational facilitation mechanism is active.

5.4 Echoing

The echoing mechanism describes the effect immersion into online radical milieus may have on individual radicalisation processes. Online echo chambers are webpages and networks online where individuals solely interact with individuals who hold the similar ideological beliefs. This dynamic impacts the moral salience of individuals over time. In order to identify the presence of the echoing mechanism, I examine whether the individual spent time on websites that can qualify as echo chambers – insofar that the pages feature ideologically homogenous users and opposing voices are drowned out. Measuring echoing, I distinguish between participation in websites where communication is largely one-way and participation in forums where communication is reciprocal. Reciprocal communication in extremist forums will primarily be examined as an indicator for echoing. Second, I examine whether the echoing effect impacted the individuals through reinforcing identity and enemy-images, or through legitimising the use of violence.

5.4.1 Peter Mangs

Several of the webpages Mangs spent time on between 2000 and 2010 qualify as echo chambers. Examining the search history of Peter Mangs phone following his arrest, the echoing quality of the internet became clear; in addition to xenophobic or conspiracy blogs like Politiskt Inkorrekt and Vaken.se, Mangs spent time on the web-page for the neo-nazi party “Svenskarnas parti”, and “Fria Tider” an anti-immigration online journal (Bjurwald, 2013).

A common characteristic between these pages is that they actively identify minorities and immigrants as an “other”, or an out-group, while identifying white people or Swedes as the in-

group. Through actively searching for and consuming information that confirmed his pre-existing beliefs, his beliefs became reinforced and strengthened.

However, for Mangs, group polarisation, dehumanisation of the “out-group” and the building of an ideological identity did not take place through the online social interaction with other extremists. Mangs conducted his initial terrorist attack prior to his activity in echo chambers, thus it is difficult to ascribe a radicalising effect from the echoing mechanism.

However, this does not mean that echo chambers had no influence on Mangs throughout his campaign; tracing his internet activity, we find large amounts of derogatory comments towards immigrants on ideologically homogenous websites like vaken.se. Mangs wrote comments about his dislike for “multicultural society” and discussed anti-state conspiracy-theories. This forum became an important part of everyday life for Mangs, who would turn there for “confirmation that he was not alone in his beliefs” (Gardell, 2015, p. 229).

According to Lööw, Gardell, and Dahlberg-Grundberg (2017), one of his main reasons for joining extremist forums was that it gave him the ability to see how his acts of violence were perceived by those who held the same beliefs as him. Evidence suggests that the legitimisation of violence that is prevalent in echo chambers was important for the continuous violence we see in the case of Mangs.

Gardell describes the pages as places that offer “even the most solitary scriptwriter to become part of a virtual community of enthusiasts gathered in defence of the national "something" that is threatened by "the presence of others" (2015, p. 349). It is likely that in the latter parts of his campaign, the collective call for violence that persisted on the web-pages he frequented seems to have egged Mangs on and provided him with inspiration and motivation to continue his attacks.

To conclude, we know that Mangs was active in echo chambers during the latter parts of his terrorist campaign, and it is possible that this impacted his activity in some manner through a further legitimisation of his already established ideological beliefs and terroristic actions. However, given the fact that identification and dehumanisation of the outgroup and legitimisation of violence had all been established prior to when he started using echo chambers, it does not seem to ultimately have been decisive for his actions. All this considered, I find it reasonable to conclude that the echoing effect was partly active for Mangs.

5.4.2 Anders Behring Breivik

There is evidence that Breivik was active in echo chambers from 2008. He registered an account on world's largest online forum for white nationalism – *Stormfront* in 2008, and he joined the Nordic anti-immigration-focused forums on *Dokument.no* and *Nordisk.nu* in 2009 (Seierstad, 2015, p. 169). Also in 2008, he became familiar with the *Gates of Vienna*, the radical-right blog run by the writer Fjordman, whom he seems to have idolised.

Examining the comments he posted online, they seem most striking in their unremarkability. His political statements did not come across as more extreme than mainstream far-right thinking, and he never posted comments that incited violence or extremist action (Ravndal, 2013, p. 174).

Some doubt can be cast on whether the echoing mechanism affected Breivik's radicalisation process. His comments on the Progress Party forum in 2002 indicated that the core sentiments of his ideology had been established several years before any activity on these forums. This assertion is further supported by the fact that he posted several comments criticising central figures on these forums for not being sufficiently radical; in 2008, he commented on Fjordman's blog; "*Why haven't you or any of the other current authors on the Eurabia related issues/Islamisation of Europe (Fjordman, Spencer, Ye`or, Bostom etc.) brought up the "D" word?*", referring to the idea of deporting all Muslims in Western countries (Ravndal, 2013, p. 175).

It is likely that Breivik held more radical views than the central figures in the community at the time he posted these comments. However, one can assume that exposure to echo chambers worked to validate central ideas in his ideology legitimising violent and extreme actions (Ravndal, 2013 p. 176).

After immersion in echo chamber websites, he started making comments that his mother described as "crazy". This may indicate that while his radical beliefs may have been established far earlier, the identification of the "enemy" and the belief in violence as a legitimate solution coincided with immersion in online echo chambers where such rhetoric was widespread. This may be understood as an indication that the echoing mechanism had an impact on his racialisation process.

Thus, while the empery clearly shows that Breivik used and was impacted by echo chambers, he used "us vs them"-rhetoric indicative of group polarisation before taking part in echo

chambers. Breivik showed signs of radicalisation through use of extreme right rhetoric in his posts on the progress party forums as early as 2002. Similarly, as explored in 5.2.2., Breivik has himself stated that he planned to martyr himself as early as 2006, indicating legitimisation of violence for political means was established early – although there is little in the empery to substantiate this. If this is the case, it speaks against the impact of echoing. On the other hand, it is likely that echo chambers had a hand in furthering his radical beliefs beyond what they were prior to his isolation, legitimising these beliefs in such a way that it ultimately impacted his willingness to act violently. Based on these contradictory findings, I conclude that the mechanism is partly active.

5.5 Acceleration

According to the acceleration mechanism, the wealth of information and community provided by the internet may cause a rapid timeframe of acceleration. The acceleration mechanism can present itself in several ways. Firstly, if the timeframe from first exploration of radical ideas to extremist action is considerably shorter than five years (Klausen, 2016, p. 16). Secondly, the acceleration of an already started radicalisation process with the active use of the internet coinciding with escalated extreme ideological statements and statements legitimising the use of violence against an out group. Additionally, the time from immersion in extremist websites start until the conduction of a terroristic attack may be very short.

5.5.1 Peter Mangs

Understanding the start of the radicalisation process as the first moment of exposure to extremist ideas, we can confidently place the beginning of the radicalisation process in 1996 with his introduction to American militia culture. The period of radicalisation is estimated to be at least 7 years, meaning that Peter Mangs' radicalisation trajectory is longer than the average timeframe proposed in Klausen et al. (2016).

The timeframe was relatively short from being exposed to extremist material online – around 2000 – to him conducting his first terrorist attack. Three years is shorter than the time average time frame of radicalisation, and the use of the internet coincided with the development of a racial manifesto. However, it does not seem that the use of the internet coincided with a substantial escalation of his radical beliefs. Rather, the development of his radical beliefs into violent radicalisation seems to be a natural progression of his already started radicalisation process.

The timeframe from immersion in the online radical forum Politiskt Inkorrekt around 2008 until the escalation of his campaign between 2009 and 2010 is also very short. This may indicate elements of acceleration in his radicalisation process. However, as we know he used a wide variety of online sources outside of Politiskt Inkorrekt, and these sources can be traced further back than 2008. There is not enough in the empery to substantiate an accelerated radicalisation process through the impact of the internet.

All this considered, I do not find enough evidence in the empery supporting that the internet accelerated his radicalisation process. The acceleration mechanism is not active.

5.5.2 Anders Behring Breivik

The timeframe of Breivik's radicalisation is difficult to determine as he showed potential extremist tendencies during his time in the progress party. His comments on the progress party forums can be taken as a sign that he already by then had been exposed to radical ideology, pointing to an already initiated radicalisation process. If this is the case, the period of Breivik's radicalisation was over nine years.

While the radicalisation process clearly started long before his immersion in radical forums, his immersion in radical forums and websites around 2008 marked a change in Breivik's outwards radical behaviour. He became more outwardly radical, holding "long lectures" about "extreme topics" when he spent time with friends outside of the internet (Seierstad, 2015, p. 166). There are clear indications that he became radicalised very quickly. Already in 2008, the same years as online activity on most radical websites can confidently be traced, he criticised counterjihad bloggers for not being sufficiently radical. By 2010, after spending two years writing the book that would become his manifesto, he started saying things that his mother considered "crazy". It is likely that Breivik decided to become a terrorist in late 2009, or possibly as late as 2010, based on his financial transactions related to the attacks (buying body armour, weapons and materials for bombmaking) between April 2010 and July 2011. Thus, we can conclude that Breivik was fully radicalised into violent extremism in late 2009 or early 2010, spending a year planning the operational aspect of his terrorist attacks (Ravndal, 2012b).

This striking escalation in his radical views seems to clearly coincide with him starting to use extremist websites. It seems likely that said escalation happened as a result of his extensive immersion into such sources over a short period of time. The process of his radicalisation had moved quite far without such inputs, but it is likely that online immersion had an acceleratory effect on the process. Thus, I find the acceleration mechanism to be active in Breivik's case.

5.5.3 Dylann Roof

Dylann Roof was first exposed to extremist ideas in 2013 after searching for information about “black on white crime” on google. Prior to 2013, there is few indications that he had any contact with radical milieus prior to this, and thus, we can reasonably conclude that his radicalisation process began this year. From here, he underwent a notably quick radicalisation process that was entirely facilitated by input from online sources. According to people around Roof, he had expressed a wish to “do something crazy” as early as six months prior to the attack, indicating that his radicalisation process had reached the point of violent extremism already after one and a half years, while he conducted his terrorist attack around two years following first immersion.

Roof’s radicalisation process from first exposure until the final act is notably shorter than the average timespan of a process of radicalisation. Thus, I find it reasonable to conclude that the radicalisation mechanism is active.

5.6 Action triggering

Action triggering describes the catalysing event or experience that pushes a radicalised individual to make the final decision to conduct violent action. There is no blueprint for what type of event may make an individual act out violently, as what functions as a catalyst is entirely subjective to the individual. Measuring action triggering, I examine the source material for experiences that are either expressed by the individual – or indicated by the material – as having inspired them to act. For the purposes of this theory, I will register the mechanism as active if the empery shows that the catalyst for the terrorist attack took place *online*.

5.6.1 Peter Mangs

Several incidents can be pointed to as likely trigger events for Mangs’ acts of terror. The experience Mangs himself has pointed to is an incident where he had been approached by three immigrants in the parking garage of his mother’s apartment complex in the year 2000. According to Gardell (2015, pp. 84-85), Mangs had been terrified by the incident, he had been too scared to confront the men. Because of this “his masculinity was deeply offended”. This can be read as an indicator for a “personal social event” that inspired him to act. According to himself, he believed that if he’d had the "moral strength, knowledge and weapon" he would have been able to kill the men without being apprehended by authorities. It was after this incident that he began to systematically prepare for his race war.

While Mangs himself points to the incident in the parking garage as decisive, another possible trigger may be failing the final practical examination of nursing school on June 4th 2003. Due to failing school, his study funds were frozen, he became unemployed and struggled to pay rent on his apartment. This incident happened nine days before his first act of political violence. It is likely that feelings of personal failure and economic desolation played a role in inciting action.

When it comes to the escalation of his campaign in the autumn of 2009, it seems that the wave of attacks that start here are incited by several different incidents. For example, in the summer of 2009 he was in the last stages of getting his diagnoses of ADHD and severe Asperger's, and was placed on sick leave. This may be consistent with indicators of personal setbacks.

The same summer he travelled to the USA to visit his father. He spent two weeks immersing himself in the militia- and gun culture of South Florida and returned home "full of inspiration" (Gardell, 2015, p. 197). It is likely that being reintroduced to the militia culture became a second action trigger for Mangs, inspiring him to start actively working to incite the race war he had been writing about. This is supported by the fact that he quit his job almost immediately after returning.

While offline incidents like personal setbacks or inspiration seem to be the most likely triggers for his attacks, it is possible that the online support for his actions he saw in extremist echo chambers had a compounding effect on his resolve, triggering more attacks. However, there is little actual evidence to support this fact. Based on this, I conclude that the action triggering mechanism is not active.

5.6.2 Anders Behring Breivik

The inciting event that preceded Breivik's terrorist attack mirrors the experiences of social alienation and rejection that seems to have impacted his radicalisation throughout the years.

In 2009, he established e-mail correspondence with the blogger Fjordman, attempting to receive support for his plans to write and distribute a book (i.e. his compendium) (Henrik, Vikås, Brenna, Nygaard, & Hopperstad, 2011). However, he was rejected by Fjordman. At the same time, his attempts to establish a conservative paper journal in cooperation between Document.no and the Norwegian Progress party was rejected on all fronts. It was after this that he started the operational planning for his attacks. Breivik's failure to impress central figures

in the extreme-right milieu with his book project can be understood as a personal setback that seems to have pushed him over the edge towards violent action.

This action trigger does not take place online insofar as he does not seem to have been inspired to – or incited to act by calls for violence in the online milieus he was a part of. Instead, it seems like the experience of *rejection* by the online ideologues he idolised and, by extension – the online community he felt a part of and where he had been able to vent his frustration – was the most impactful factor. The internet was thus an important factor in Breivik’s decision to act violently and I conclude that action triggering is *active*.

5.6.3 Dylann Roof

No specific incident can be identified as a catalyst for Roof’s decision to conduct a terrorist attack. From his manifesto, we can discern that the motivation for his attack involved perceiving that his in-group (the white race) was “under attack” by the African American minority.

In his manifesto, he concludes that he has “no choice” but to conduct the attack, writing that “someone has to have the bravery to take it to the real world, and I guess that has to be me” (USA V Roof, 2015a).

It is likely that the catalyst for Dylann Roof’s terrorist attack was prolonged exposure in extremist forums and websites to calls of violence against out-groups such as African Americans. However, as there is no evidence in the empery of any specific triggering incident, this is not something I can make a conclusive statement about. Therefore, I conclude that (online) action triggering is not active.

6 Discussion of findings

In the following, I will compare the findings of the analysis. Table 6 illustrates the extent to which each mechanism is present in each case. I registered the findings for each type of facilitation, both operational and ideological. Red means that the mechanism is absent or that there is not enough data to draw a conclusion, yellow denotes a partly active mechanism while green means that the mechanism is active.

Table 6: Case study findings

		Peter Mangs	Anders Behring Breivik	Dylann Roof
Compensation				
Isolation				
Facilitation	Ideological			
	Operational			
Acceleration				
Echoing				
Online action triggering				

 The mechanism is absent/inconclusive  The mechanism is partly active  The mechanism is active

6.1 Compensation

Comparing the cases, empirical evidence indicates pre-existing vulnerabilities in all three cases. However, the degree to which the compensation mechanisms are present vary.

Crenshaw (2005, p. 13) asserts that “explaining terrorism in terms of background conditions (social, economic, demographic, political, or cultural) is insufficient at best, and wrong at worst”. Most who come from the same background conditions have not become radicalised. However, considering the presence of background conditions in all the cases, we must assume some connection between vulnerabilities and the likelihood of connecting with alternative worldviews online rather than in real life, as well as why radical thinking may be more likely to appeal to these individuals.

It is likely that childhood experiences and family situations had an impact on their radicalisation processes. Firstly, all three individuals came from divorced households and what can be described as insecure home environments. This kind of parental discord has been described as a relatively frequent traumatic event pre-staging radicalisation, possibly due to the parental authority falling apart, leaving the individuals with insufficient supervision (Klausen, Champion, Needle, Ngyen, & Libretti, 2016, p. 76). Both Mangs and Breivik seems to have experienced neglect; Mangs “had to care for himself” while his mother worked, particularly after his sister died from a drug overdose (Gardell, 2018, p. 794), Breivik’s home life was so unstable that it attracted the attention of Child Protective Services (Østli & Andreassen, 2011). While neglect was not present for Dylann Roof, there are indications of domestic abuse in the home. These experiences were likely significant for their later ideological development.

Furthermore, it is also likely that mental health issues are an important factor in the radicalisation process, possibly through facilitating disengagement from society, either physical or mental.

All the actors experienced failures, disembeddedness from social life and dissatisfaction with self, consistent with personal crisis. Experiences like loneliness, unemployment and economic struggles are likely to lead to a disillusionment with the status quo. All three struggled in school and none finished their primary education. Mangs failed in several different educational programs before he was able to successfully become a dental assistant after completing an online education program. Prior to this, he expressed frustration about not being able to get a job and being broke. Breivik grew more radical and more isolated in the face of personal failures, such as dropping out of school and the failure of his political and professional ambitions. Roof faced fewer such failures as he dropped out of society at an early age. It is likely that his frustrations were more tied to mental health problems and social struggles.

From the elaborations above, I can identify indicators of pre-existing triggers, needs and vulnerabilities in the lives of each individual terrorist. However, it does not seem that the online compensation mechanism is active in each case to the same extent.

For Mangs, it does not seem like he compensated for triggers, needs and vulnerabilities through searching for and immersing himself in alternative world views in the online sphere of his own volition. Instead, he became introduced to alternative world views through face-to face interaction with extremists in the USA. He did not start actively using the internet for extremist purposes until he started using it as a tool to write his political manifesto. From this I gather

that Mangs initial compensatory activities of immersing himself in radical milieus and information was not internet-specific, but rather that the compensation of alternative worldviews started before he started using the internet.

For Breivik, compensatory behaviour can be identified at different points in his pre-radicalisation life. Triggers, needs and vulnerabilities are present in experiences throughout his life including indicators of trauma, personal crisis stemming from failures in social life, political life and business, disembeddedness from real life social interactions and a loss of trust in the political system. It is possible to interpret his more radical comments on the Progress Party forum as a compensatory response to his failure to gain a leading position in the party through using the forum – and later more radical forums and pages – for venting his frustrations with the status quo. Secondly, his almost total withdrawal from social life in favour of online gaming following the failures of his businesses can be read as compensation through online behaviour for a dissatisfaction with his sense of self and the status quo (Seierstad, 2015, p. 133).

Roof had a similar withdrawal from offline life into online gaming, and later, radical forums. His vulnerabilities were primarily focused on mental health and struggles with social life and it is highly likely that Roof turned to the internet to compensate for this. A later instance of compensation can also be pinpointed, specifically regarding use of the online medium that falls in line with searching for alternative worldviews as Roof turned to the internet to seek out interpretations of the Trayvon Martin case that were closer to his own.

One possible reason for why Mangs compensatory response differs from Breivik and Roof could be that large parts of Mangs' radicalisation process took place in the latter half of the 1990s, when access to computers and the internet was less widespread, and far fewer radical websites existed online in the first place. It is highly likely that the fact that Mangs underwent a radicalisation process in the very early days of the internet had something to do with his diverging compensatory behaviour. The simple fact that he did not have a personal computer until after he had undergone his radicalisation process and by extension did not have the same easy access to extremist online materials may explain the outcome here.

6.2 Isolation

The findings indicate that the individuals experienced isolation that affected their radicalisation processes in different ways. Each faced a degree of isolation or disembeddedness in their offline lives, likely brought upon by individual experiences and disorders that each suffered from.

One notable similarity between the three perpetrators is that all three are either diagnosed with – or are suggested by experts to have spectrum disorders. Both Mangs and Breivik have been suggested to have Asperger’s disorder, while Roof is believed by experts to have an Autism disorder. As noted in chapter 5.1.1., this is in line with findings by Corner and Gill, who write that Lone Actors are far more likely than group actors to suffer from mental illnesses, and Asperger’s disease being overrepresented among such disorders (Corner & Gill, 2015, p. 30). These disorders are likely to have negatively impacted their social competence, possibly promoting offline isolation, which again paved the way for online immersion.

Offline embeddedness was also impacted by experiences in their own lives.

Peter Mangs struggled with making connections with people throughout his life, something which was the primary reason why he dropped out of school, as well as an important reason why he left Sweden for the USA. The isolation was most prevalent after he returned from USA and struggled to reintegrate into Swedish society, growing introverted and lonely. At the same time, a degree of online immersion can be identified, as he started spending more time researching his ideology online, moving on to participating in online forums as time passed and more became available. The isolation Mangs experienced did not seem to be self-imposed, but rather as a result of difficulties with making and sustaining personal relationships. Furthermore, his social withdrawal was not absolute, as Mangs sustained relatively close relationships with his father and some close friends who subscribed to similar radical ideologies.

Many similar experiences were present for Anders Behring Breivik, who experienced repeated instances of (real or perceived) alienation from peers at several point in his life. He was not entirely disembedded, having several close friends and having been regarded as very social. However, he seemed to have detach socially in response to failures and disappointments that to him was perceived as rejection by his peers (such as not being selected for a position in the Progress Party or being rejected by the graffiti gang and his classmates).

This detachment ultimately culminated in a prolonged period of self-imposed isolation, distancing himself from friends and moving back into his mother’s home to play video games. The isolation would be coupled with immersion into online worlds, first through massive multiplayer online video games, then through extremist forums as his radicalisation progressed.

Lastly, Dylann Roof can be described as socially isolated throughout most of his life. He was described by classmates as shy and withdrawn, preferring to play by himself rather than spending time with others. Roof dropped out of school at the age of 16 and self-isolated for five

years, first playing excessive amounts of video games before becoming deeply immersed in extremist forums and radical ideology.

Thus, it is highly likely that the isolation mechanism has had impactful roles in the radicalisation processes.

Instances of isolation can be traced throughout everyone's life and on each individual's path of radicalisation, although each manifested in different ways. Isolation can be self-imposed or as a result of an inability to connect with peers. Both Roof and Breivik withdrew from society in self-imposed isolation their radicalisation occurred, interacting with the outside world almost solely through the internet. Meanwhile Mangs was a disembedded loner, but retained ties with a few other people, although these were people who held similar radical beliefs as himself.

Both Breivik and Roof became almost entirely reliant on the internet for social interaction following offline exclusion. Interestingly, both initially withdrew from society to play video games, with no evidence that they started immersing in online extremist websites until a relatively long period of time after initial withdrawal. This indicates that it is not necessarily the extremist milieu that promotes further withdrawal and detachment, but that individuals who are heavily detached from social life outside of the internet and already seeking a community may be more easily drawn into extremist milieus when exposed to them.

Furthermore, both Roof and Breivik made unsuccessful attempts to establish offline contact with other online radicals in the echo chambers they were a part of. This indicates that the internet did not replace the need for face-to-face interaction, but rather that it played a surrogate role, providing an alternative venue for interaction for people who seemingly struggled to connect with others – even in the extremist community.

The radicalisation of the individuals escalated after isolation had occurred. While this does not indicate that isolation is the cause of radicalisation, it is likely that isolation contributes to radicalisation processes. One possible reason is that isolated individuals often have the time and opportunity to immerse themselves deeply into online extremist milieus, while the isolation shelters their viewpoints from being challenged by those who hold differing beliefs.

6.3 Facilitation

The analysis shows that the mechanism of facilitation has been present in each individual radicalisation process to a greater degree.

It's not always easy to ascertain in what order the process of online radicalisation takes place; do racist thoughts and beliefs lead an individual to immerse themselves in an online culture that justify these beliefs, or does the consumption of online racist or extremist materials build these beliefs from the ground up?

The empirical material suggests that neither of the cases were exposed to radical thinking for the first time through the internet. Ideological and radical biases and grievances can be traced as far back as to their childhoods.

For Mangs, his initial source of information about radical viewpoints and ideology was face-to-face interaction with his radical father and the militia milieu in South Florida, as well as interaction with physical radical literature such as *The Turner Diaries*, later as he started further immersing himself in the ideology, he started using the internet as a source of information. This indicates that online influence was not an initial facilitator of Peter Mangs' radicalisation process. Instead, online sources seem to have been used as a tool for furthering his ideological development after having become radicalised to the point of starting to write an ideological manifesto and preparing a race war. Despite significant use of the internet for extremist purposes between 2001 and 2009, his ideology remained heavily influenced by the milieu he was introduced to in USA. As such, one cannot confidently conclude that the internet facilitated Mangs' radicalisation, but one can conclude that it played a part in developing it further.

Breivik also exhibited signs of having been radicalised prior to his use of online extremist sources, posting comments on the Progress-Party forums that echoed counter-jihad ideology as early as 2002. He became further radicalised into violent extremism through activity on extremist forums and websites, as well as communication with other extremists during his isolation from 2006 until 2011. Like Mangs, his radical beliefs later built on the framework of islamophobia and hatred of socialism that he held prior to being immersed in online extremism. Furthermore, like Mangs, it is very likely that the internet played a part in shaping and developing his radical ideology into violent extremism. In both these cases, I therefore conclude that the ideological facilitation mechanism is partly active.

For Roof, the internet was the most important tool in the facilitation of his ideological development. From first being exposed to extremist websites to conducting his attack, he relied on the internet for information gathering. The online proliferation of extremist websites and the ease of information gathering facilitated Roof's radicalisation through making propaganda texts and websites easily available for an individual who was curious about radical ideology.

Mangs and Breivik's cases show that the internet helped facilitate processes of radicalisation to an extent. Whether Breivik and Mangs would have become radicalised without online facilitation is hard to say, however, their access to online sources ensured access to information that they would not otherwise be able to access as easily. Both individuals were well on their way to becoming radical prior to the introduction of the online element in their radicalisation process. This indicates that the online facilitation of radicalisation was not decisive for their radicalisation, but instead that it provided more opportunities to become radicalised.

In terms of facilitation of operational aspects, a different conclusion is reached. For Mangs and Breivik, the internet was decisive for their ability to conduct their attacks effectively. Mangs used the internet to map his victims, getting access to home addresses, dates of birth and more. Breivik was able to use the internet as a facilitative tool in almost every aspect of his operational planning, including acquisition of information and materials for building weapons and funding of his operation. For Roof, his operational planning seems to have largely taken place offline, but like Breivik, he posted a manifesto online prior to conducting his attack.

6.4 Acceleration

The analysis of the cases presents diverging evidence in the question of the internet as an accelerator of the radicalisation process.

For Mangs and Breivik it is likely that radicalisation was built over a number of years, starting prior to their immersion in radical websites and in full exceeding the average timespan from first exposure to conducting a terrorist attack.

It is, however, possible that the internet had an acceleratory impact on their radicalisation processes that were already underway. For Mangs, the timeframe between when he started researching ideology online and when he conducted his first terrorist attack is around three years, which is shorter than the average radicalisation process. However, no indication can be found that he started acting more radical specifically during the time he was researching

ideology. Without an empirical connection between increasingly radical behaviour and use of online sources, I find that there is little basis to conclude that Mangs experienced an accelerated radicalisation process through online exposure.

This is in contrast with both Breivik and Roof. Roof's entire process of radicalisation took place online in the span of a short time hinting at the acceleratory impact of online sources. Similarly, while Breivik radicalised over a longer period, his immersion into radical forums was coupled with quickly becoming outwardly more radical. It is possible that the degree of immersion coupled with outwards isolation had something to do with this, as both Roof and Breivik went into self-imposed isolation as described in chapter 6.2. Having access to constant and immediate stream of extreme content while at the same time remaining largely unexposed to the outside world may have an impact on the speed of radicalisation. For both Breivik and Roof, this seems to be the case.

6.5 Echoing

In all three cases, I found that echoing was present at least to a degree.

For all three cases, their internet activity was almost exclusively contained to ideologically homogenous websites. For Breivik and Roof, their activity on these types of websites was coupled with a lack of social interaction outside of the online sphere where they could have been exposed to opposing opinions. Mangs had more opportunities to be exposed to opposing viewpoints through his job and his Asperger's group. However, it seems like he avoided interaction with individuals whom he did not politically agree with, and surrounded himself with individuals who held the same radical beliefs as him. As such, it is likely that the echoing effect had stronger impact on him than the opposing beliefs he may have been exposed to offline.

When it comes to group polarisation, this seems not to have taken place as a result of the echo chambers for Breivik and Mangs. Both expressed negative feelings towards outgroups (socialists, immigrants, Muslims) prior to online immersion. This indicates that the echo chambers did not create this polarised world view for them. This is in contrast with Roof, who according to the empery did not – at least to the same extent – experience bias towards the outgroup prior to conducting his terrorist attack.

For Roof and Breivik, it seems that they started making offline comments consistent with legitimisation of violence after having been exposed to echo chambers online; In Roof's case expressing the wish to shoot black people to a friend, while Breivik started saying things his mother described as "crazy" after immersing himself in echo chambers for two years. Mangs is also known to have expressed opinions indicative legitimising violence against the out-group. However, he differs from the other two in that he seemed to come back from the USA holding these beliefs, rather than developing them as a result of exposure to echo chambers.

When it comes to Roof, experts who examined the entirety of Roof's online activity have pointed out that his communication with the online milieu seems to be mostly one-way, meaning he consumed a lot of information, but "contribute little original thought" (Robison, 2016, p. 9). This indicates that the echoing effect may impact the individual even in the absence of active participation in the discourse on the websites.

As such, it seems clear for all three cases that the internet functioned as an echo chamber. All three used the internet to actively search out information that confirmed their already existing biases and remained largely unexposed to opposing views. Less so in the case of Mangs, who does not seem to have had the same kind of outstretched exposure to echo chambers that Roof and Breivik had during large parts of his terrorist campaign.

This lack of reciprocal communication that especially Roof experienced on online extremist forums indicates that the echoing effect may not actually be reliant on continuous and mutual correspondence between the terrorist and the community. Instead, the importance of echo chambers to processes of radicalisation could be that they create a *sense* of belonging to a greater community, and that this belonging can be felt even when interaction with the community is almost exclusively one-way. This may be argued to be highlighted by the fact that all three perpetrators expressed that they saw it as their task to conduct an act of terror on behalf of their community. All seemingly felt the responsibility to turn the discourse of the online forums into reality (Phillips, 2016; Gardell, 2015, p. 348; Svendsen, et al., 2012)

6.6 Action Triggering

When it comes to action triggering, specific action triggers could be identified in the cases of both Breivik and Mangs, while one in all three cases could argue for an online element in the action triggering.

Mangs was an interesting case in terms of action triggers as he conducted repeated attacks between 2003 and 2010 and is thus likely to have been impacted by multiple triggers. He himself has pointed to specific offline interactions with immigrants as the catalysing event for his operational phase. Additionally, other situations or events in his life are likely to have impacted on his decision to act violently, all of these were offline-specific. In terms of an online element, it is possible that the echo chambers he spent time in prior to and during the escalation of his terrorist campaign between 2009 and 2010 had an impact. During his campaign, Mangs specifically spent time on these types of websites in order to see how his actions were received by his in-group. It is possible that seeing a positive reception compounded his resolve, and triggered more attacks. However, in the analysis, it was found to be more likely that his actions were rooted in offline inspirations and motivations. Without any information from Mangs himself to indicate the presence of online triggers, this mechanism was recorded as not active.

In Roof's case, I was not able to connect his operational phase with a specific catalysing event, neither offline nor online. To address the online element, it is possible that the catalyst for his decision to act was a culmination of his prolonged exposure to radical forums, ultimately pushing him to believe action was a necessary step. However, in the absence of any tangible evidence supporting this, the online action trigger was marked as not active.

Comparatively, a specific action trigger could be identified in Breivik's case. The beginning of his operational phase coincided with the rejection of his book project by his idols in the online radical milieu. This catalysing event was recorded as an online action trigger as the milieu, the communication, and the rejection from his idols took place solely in the online sphere. It seems possible that the experience of rejection from the online community and his idols became the catalyst for his decision to take extreme action, as any non-violent course of action had failed. Breivik's case is the only one out of the three where the online action trigger is marked as active.

Taken together, these findings highlight the subjectivity of action triggers. It is not possible to identify one single type of trigger event that will catalyse terrorist action in every case of terrorism. One person's trigger may be another person's daily nuisance, while others may make the decision to act without the presence of a specific catalysing event at all. This stands as an argument against online radicalisation as a solely online process, as despite the presence of online mechanisms in all other aspects of the radicalisation process, the action trigger may still take place offline – if it is present at all.

6.7 Summary of findings

While the compensation mechanism was not universally active, all three cases clearly had pre-existing vulnerabilities that likely promoted their radicalisation processes. This confirms the findings of most other terrorism research; the choice to consume rather than to ignore extreme information when exposed to it, is likely incumbent on offline push-factors that through their presence makes the extremist messages more impactful. Despite this, I found that only Roof and Breivik can confidently be said to have compensated for such vulnerabilities through online use. This is likely due to the fact that I chose cases that spanned a long period of time and that Mangs started his process of radicalisation in the very beginning phases of the commercial internet – not owning a private computer until after coming back from the US. This likely impeded his ability to compensate through online use in the same way Breivik and Roof did.

Isolation seems to be the most significant mechanism for online radicalisation in all three cases. Pre-existing vulnerabilities likely played a role in isolating individuals, so the internet ultimately became their main source of information and interaction. When it comes to online immersion, this seems to be present in all three cases to different degrees. Once the individuals are detached from their social network offline, the internet may become the most important source of information and social interaction. This opens the door for immersion into extreme communities.

In terms of facilitation, the internet acted as a key source of information that drove the radicalisation process of all three cases. Both Roof and Breivik went through the entirety or large parts of their radicalisation processes respectively in self-imposed isolation. It is possible that neither of these would have radicalised to the same degree were it not for the ability of the internet to reach individuals who otherwise would not have been reachable by traditional radicalisers.

In a similar vein, facilitation was not present to the same degree in the operational phase. No evidence could be found to show that Roof used the internet in his attack planning, while Mangs and Breivik used the internet actively in the operational phase. Thus, the internet is an effective venue for the planning of terrorist attacks as it provides easy access to information that may help with radicalisation. It also provides the ability to search for and download information anonymously which may help alleviate the fear of capture that may stop some individuals from planning attacks.

Finally, echoing appears to have had an impact in all three cases. All three spent time in ideologically homogenous websites and forums where dissenting voices were drowned out. While echoing was not found to be the deciding reason for group polarisation for Mangs and Breivik and was not found to have been the primary cause for the legitimisation of violence for Mangs – it is likely that echo chambers had an impact on all three individuals through legitimising, strengthening and shaping their belief sets as well as their sense of attachment to a community of people. Subsequently, the messages of in-group inclusion and out-group exclusion are amplified and internalised by the individuals. In all three cases, the individuals expressed that they believed they were acting on behalf of the community they saw themselves as part of. Echo chambers on the internet likely provides a venue where – possibly due to the anonymity provided by the medium – the threshold is lower for engaging in conversations with other people, especially about subjects that could be perceived as security risks. This may promote a sense of attachment to a community even in the absence of actual reciprocal interaction between the individual and the community.

The study did not find sufficient data to conclude that the internet accelerates radicalisation processes. Only Roof underwent a notably quick radicalisation, while Breivik and Mangs subscribed to radical ideology several years before conducting a violent attack. In terms of the ability of the web to accelerate a process that is already under way, it seems like this was the case for Breivik. This mechanism was also the hardest to trace empirically. With such diverging findings, drawing a conclusion is difficult.

Similarly, for the mechanism action triggering, the findings show no conclusive results. While Breivik was likely triggered to act through the internet, Mangs' case points to entirely different venues for triggering, while no specific catalyst can be identified for Roof. This shows that the event that pushes an individual to decide to act violently is entirely subjective and thus hard to capture in theoretical models

7 Conclusion

Internet-mediated radicalisation has become a pertinent issue as the dramatic developments of the internet in the last two decades have created new venues for communication and information, accessible by the press of a button. An increasing number of citizens are spending more of their lives online, in an interconnected and globalised world, and as a result comes the growing danger that these individuals fall into the clutches of extremist communities. The internet has made it possible for extremists to communicate and spread their ideology outside of the sphere they would otherwise reach. And furthermore, it provides a locus in which individuals can obtain radical materials and immerse themselves in extensive ideological worlds.

The presence of the internet as a radicalising platform has been largely accepted as truth by policymakers, researchers and the media alike. However, there has been little agreement about what *role* the internet plays in the process of radicalisation. The objective of this study has been to cast some light on this question.

In this thesis, I have traced mechanisms assumed to fuel the process of online radicalisation. As a first step, I conducted a wide literature review on the existing research in the field of online radicalisation and extracted six mechanisms that together made up the analytical framework for the study. This approach was chosen because I found that no existing theoretical framework provided a complete picture of all mechanisms that had a potential impact on the process of online radicalisation. Instead, I first identified the different mechanisms that according to the literature *could* be present in the online sphere, and then examined the presence of each of these mechanisms in my selected cases.

In choosing the comparative case study design and using process tracing as my method, I aimed at ensuring a degree of both depth and width for the study. Through process tracing, I was able to empirically trace and thereby verify or dismiss theorised causal processes that may link causes and outcomes together, while the comparative dimension made it possible to uncover similarities, contrasts or patterns across cases and thereby lessen some of the methodological shortcomings connected to a single case study analysis.

My findings show that different mechanisms were active in each case, and that no single mechanism was fully active in all cases, thereby suggesting considerable casual complexity. Yet three mechanisms were at least in partially active in all three cases: Isolation, Facilitation

(ideological) and Echoing, suggesting that these three mechanisms may be particularly relevant for illustrating *how* online radicalisation impacts on lone actor terrorism.

The study has not been able to identify online radicalisation as a solely online process in any of the cases. As such, radicalisation mechanisms cannot drive the radicalisation of individuals alone. While the internet can play an important role in facilitating the radicalisation process through making information easily accessible, as well as amplifying polarisation and legitimising extreme ideology through echoing; it is not effective on its own. Offline aspects such as isolation in the form of detachment from offline social milieus are found to be important, likely because it provides the locus for the individual to seek out information and belonging in alternative milieus online where communication is voluntary, and the individual is in control. Lastly, my findings did not support the suggestion in the theory that face-to face interaction was necessary for radicalisation to occur. While Mangs' radicalisation included an element of face-to face interaction, neither Breivik nor Roof had this.

No mechanism was found to be active in all the cases. Thus, the study does not go far in neither confirming nor disputing the theory that was used as the framework for the study. However, it is possible that this incongruity is due to the cases that were chosen. In the case of Roof and Breivik, the prevailing theoretical suggestions mostly held, while in the case of Mangs, the internet seemed to have a less important role. As previously discussed, it is likely that this is due to him radicalising early in the era of the commercial internet, where it was less accessible to the general public than it was when Breivik and Roof radicalised. This may also indicate a growing importance of the internet in online radicalisation processes as time passes and the internet develops and becomes more accessible. Had I chosen different cases of radicalisation into violent extremism that took place further into the 21st century, it is possible that the findings would be more unambiguous. Furthermore, applying the same framework to a larger number of cases could also go far in providing more conclusive findings than was done in this study. A similar analysis of a larger number of cases of online radicalisation into violent extremism between 2015 and 2020, could be a point of departure for future research.

Another interesting theoretical dimension is that both Breivik and Roof spent several years in isolation playing online video games. In this thesis, I examined this dimension as a part of the compensation and isolation mechanisms, finding that it likely helped provide the individuals with a venue where they could isolate themselves from the outside world and immerse themselves in an alternate reality. However, this may also raise interesting questions about

video games as a factor in the radicalisation process: There are more than 2.5 billion active gamers around the world today, and every modern gaming device is connected to the internet. Thus, gaming poses a whole new set of questions about its role in online radicalisation processes, and further research is necessary to better understand this factor.

The study could also have practical implications for work with anti-terrorism. Knowledge of how the processes of radicalisation work in the online sphere is necessary to meet the increasing reach of the internet and the challenges that come with it.

First and foremost, the findings highlight that online radicalisation often starts offline, in the form of push-factors that make the individual more susceptible to online pull-factors once exposed to them. Individuals who drop out of school or quit jobs or otherwise disengage from society may be vulnerable to extremism online. Knowing the signs and identifying these individuals before they have the opportunity to radicalise, may be an important strategy in anti-terror.

Secondly, the findings indicate that individuals who conduct violent attacks are not always outwardly violent in their rhetoric online. Identifying those who will conduct violence among the many who use extreme rhetoric, but are not violent, may be very difficult. The monitoring of extremist websites may not be sufficient to identify and stop those who are prone to violence.

Thirdly, all three individuals are known to have expressed ideologically extreme statements to close friends or family. Had these people reported this to the authorities, the damage in these cases may have been minimised or avoided completely. Thus, tips from people close to the individuals, and from the public may be an effective anti-terror strategy.

In the end, it seems clear that the internet impacts on lone actor radicalisation in a variety of ways, but it still remains one of several likely causes of radicalisation. In reality, online radicalisation involves real people whose actions cannot be considered without also considering the socialising settings that form their beliefs and inform their actions both within the online sphere and outside of it. Thus, studying the medium, it is important to neither exaggerate nor underestimate its influence, but rather focus on the ways in which the internet affects radicalisation.

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Attachments

UiO : Universitetet i Oslo

Til: Norsk Senter for forskningsdata (NSD)

Dato: 13. november 2019

Godkjenning av personvernkonsekvensvurdering (DPIA)

Utøver av behandleransvaret ved UiO godkjenner med dette personvernkonsekvensvurderingen NSD har utført for «Terroristers bruk av internett og hvordan nettet har spilt en rolle i utvikling av politisk ståsted: dokumentanalyse og case studie» med NSD-prosjektnummer 647527. Prosjektet oppfyller kravene i personvernlovgivningen, og kan starte slik det er beskrevet i meldeskjemaet. Ved endringer må NSD kontaktes for ny vurdering.



Med vennlig hilsen,

Vilde Sørbø Nenseth
Utøver av behandleransvaret, UiO

Roger Markgraf-Bye
Personvernombud, UiO

