Reviewing the Role of the Internet in Radicalization Processes[1]

Özen Odağ[a2], Anne Leiser[b], Klaus Boehnke[c]

[a]Professor of Psychology, Psychology Department, Touro College Berlin, Germany, [b]Doctoral Fellow, Bremen International Graduate School of Social Sciences (BIGSSS), Jacobs University Bremen, Germany, [c]Chair, Methods Center, Bremen International Graduate School of Social Sciences (BIGSSS), Jacobs University Bremen, Germany, and Deputy Director, Center for Sociocultural Research, Higher School of Economics, Moscow, Russia

Abstract

This review presents the existing research on the role of the Internet in radicalization processes. Using a systematic literature search strategy, our paper yields 88 studies on the role of the Internet in a) right-wing extremism and b) radical jihadism. Available studies display a predominant interest in the characteristics of radical websites and a remarkable absence of a user-centred perspective. They show that extremist groups make use of the Internet to spread right wing or jihadist ideologies, connect like-minded others in echo chambers and cloaked websites, and address particularly marginalized individuals of a society, with specific strategies for recruitment. Existing studies have thus far not sufficiently examined the users of available sites, nor have they studied the causal mechanisms that unfold at the intersection between the Internet and its users. The present review suggests avenues for future research, drawing on media and violence research and research on social identity and deindividuation effects in computer-mediated communication.

Introduction

In the wake of recurring terrorist attacks in Europe and the USA in recent years, the Western world has become concerned about the Internet's potential for radicalizing individuals. Existing case studies of radicalization on Western media reports of the perpetrators of the

---

[1] The current manuscript benefitted from an expertise prepared by the authors for the Arbeits- und Forschungsstelle Rechtsextremismus und Radikalisierungsprävention at the Deutsches Jugendinstitut e.V. (DJI) URL:
https://www.dji.de/fileadmin/user_upload/bibs2018/Boehnke_Odag_Leiser_2015_Neue_Medien_Extremismus.pdf

[2] Corresponding Author Contact: Özen Odağ, Email: oezen.odag@touroberlin.de, Touro College Berlin, Am Rupenhorn 5, 14055 Berlin, Germany

Christchurch massacre,[3] the killings on Utøya,[4] the planned murder of Swedish artist Lars Vilks,[5] and the recent attempted attack on a synagogue in Germany[6] have all clearly identified a key culprit in radicalization processes: the Internet. An often-articulated assumption in the coverage of these cases is that the development of radical attitudes is a direct consequence of contacts with extremist social media content and online self-radicalization (e.g., Lenz & Nustad, 2015; Shane, Apuzzo, & Schmitt, 2015; see more skeptical voices in Burke, 2003, and Von Behr, Reding, Edwards, & Gribbon, 2013).

The academic discourse is less certain about the role that the Internet plays in radicalization (Back, 2002; Benson, 2014; Holt, Freilich, Chermak, & McCauley, 2015; Von Behr et al., 2013). This discourse is highly scarce and replete with research gaps (Archetti, 2013, 2015; Cilluffo, Cardash, & Whitehead, 2007; Conway, 2005, 2017; Meleagrou-Hitchens, Alexander, & Kaderbhai, 2017; Von Behr et al., 2013). Available studies on online radicalization are mostly descriptive, focusing on the phenomenology of extremist websites that are content- or discourse analyzed in the tradition of *communication* science (Byrne et al., 2013; Conway, 2005; Dunbar et al., 2014; Gerstenfeld, Grant, & Chiang, 2003; Shafer, 2002; Tsfati & Weimann, 2002). Less is known about the *psychological* dimension of the Internet in the context of radicalization: we know little about the motivations with which users visit extremist websites; we know little about the types of users, their characteristics, orientations, values, experiences, etc. Most importantly, the literature lacks integrative causal theories that could *explain* the link between the Internet and radicalization from a *media effects* point of view (Conway, 2017; Gill, Corner, Conway, Thornton, Bloom, & Horgan, 2017; Von Behr et al., 2013).

---

[3] The Christchurch massacre was a right-wing extremist attack in Christchurch, New Zealand on March 15, 2019.

[4] This was a mass murder on the Norwegian island Utøya in 2011 (Archer, 2011; Ravndal, 2013; Ungerleider, 2011).

[5] Colleen LaRose was openly planning to kill the Swedish artist Lars Vilks who had aggravated many Muslims by drawing a cartoon of Muhammad. LaRose has also come to be known as Jihad Jane or Fatima LaRose (Conway, 2012; Halverson & Way, 2012; Picart, 2015; Weimann, 2014a).

[6] On October 9, 2019, a terrorist attack was attempted in a synagogue in Halle, Germany. The act was streamed by the perpetrator on the Internet by means of a helmet-mounted camera (Hill, 2019).

It is against this background that the current review synthesizes state-of-the-art literature on the role of the Internet in radicalization. Main goals are to give an overview of existing research, dispel deterministic assumptions concerning the impact of the Internet on radicalization, and identify the type of research that needs to be done in the future. Following Conway's call (2017) for comparative research, we present two different bodies of literature: research on online right-wing extremism and online jihadism.

Methodology

A thorough literature search spanning a 20-year publication range (2000 – 2019) was carried out via social science databases including Academic Search Premier, Arts and Humanities Citation Index, Google Scholar, JSTOR, PsycInfo, Social Sciences Citation Index, and SocINDEX. The VOX-Pol online library, a library created by the EU network of excellence on violent political extremism, was also used. In addition to these English language and international databases, we complemented our search with German language literature by using the database Psyndex, Sowiport/Sowis, and WISO. Our search focused on extremist right wing or jihadist ideologies relating to Internet use.

In any single literature review, there are areas of scholarly work that cannot be included for reasons of space and scope. Similarly, the current literature review does not include the rich body of literature that deals with radicalization without a predominant connection to the Internet (for a summary of this literature see Holt, Freilich, Chermak, & LaFree, 2018; McCauley & Moskalenko, 2011). We also excluded papers dealing more narrowly with specific *social media* such as Twitter and Facebook and their relevance in the context of radicalization (e.g., Mitts, 2019) – this literature would merit a review in its own right and was beyond the scope of the current paper.[7] At the same time, a rudimentary analysis of this literature showed that its central claims are much in line with what we report

---

[7] We are aware that the distinction between articles focusing on the Internet and articles focusing on specific social media is far from ideal, especially as their points of convergence outweigh their differences. At the same time, the vast amount of studies on the role of specific social media in the context of radicalization prevented us from including them into the current review.

in the current review, i.e., that user-centered and explanatory (causal) approaches are lacking (e.g., Kadivar, 2017; see especially Mitts' (2019) recent attempt to causally explain radicalization on Twitter). Excluded from our literature search was also *grey* literature, i.e., literature that has *not* been published in pertinent academic journals, such as government reports, policy statements, and research summaries made available online through international or national institutions (such as the International Centre for the Study of Radicalisation and Political Violence, the Konrad Adenauer Foundation, to mention only a few; examples can be found in Carter, Maher, & Neumann 2014; Vidino & Hughes, 2015). Again, this literature is so broad in scope it would deserve its own synthesis. It was included in the current review only to the extent that it had been cited repeatedly in the literature we present here.

To give an overview of the state-of-the-art academic scholarship on our topic, we focused our search predominantly on the academic and empirical research available through (peer-reviewed) journals, scholarly books, and conference presentations. We also focused our search on contributions that show promise in revealing insights on potential *causal* links between the Internet and radicalization. More specifically, we were curious to find out more about the predominant topics, methodological designs, and conclusions circulating in pertinent academic outlets – especially those that have undergone an academic evaluation procedure by the scientific community. Table 1 displays our search terms together with the resulting publications and publication counts.

Table 1

Search terms and resulting works broken down into topical areas

Topical Areas	Search Terms	Resulting Publications	Number of Publications
Radicalization	radicalization; extremism; fundamentalism; polarization; terrorism; ideology; persuasion; hate speech; hate groups; prejudice	Archetti (2013); Byrne et al. (2013); Conway (2017); Gill, Corner, Conway, Thornton, Bloom, and Horgan (2017); Gill, Corner, McKee, Hitchen and Betley (2019); Holt, Freilich, Chermak, Mills, and Silva (2019); Holt, Freilich, Chermak, and McCauley (2015); Kruglanski, Fernandez, Factor, and Szumowska (2019); Meleagrou-Hitchens, Alexander, and Kaderbhai (2017); Mott (2019); Post, McGinnis, and Moody (2014); Quayle and Taylor (2011); Reeve (2019); Rieger, Frischlich, and Bente, (2019); Schmitt, Ernst, Frischlich, and Rieger (2017); Shafer (2002); Schils and Verhage (2017); Yardi and boyd (2010)	18
Right-Wing Extremism	right-wing extremism; racism; white supremacy; whiteness; anti-Semitism; racial nationalism; national socialism; xenophobia	Back (2002); Busch (2005); Daniels (2008, 2009a, 2009b); De Koster and Houtman (2008); Frischlich, Rieger, Hein, and Bente (2015); Gerstenfeld, Grant, and Chang (2003); Glaser and Schneider (2012); Klein (2012); Köhler (2014); Lee and Leets (2002); Levin (2002); Myagkov, Shchekotin, Chudinov, and Goiko (2019); Rafael (2011); Ravndal (2013); Richards (2019); Rieger Frischlich, and Bente (2013, 2017); Scrivens, Davies, and Frank (2018), Siapera (2019)	21
Jihadism	jihadism; electronic jihad; ejihad; Islamic State; IS; ISIS; Al-Quaeda; militant Islam; islamist; homegrown extremism; homegrown terrorism	Aly (2017); Awan (2007); Baaken and Schlegel (2017); Berger (2015); Carvalho (2014); Cheong and Halverson (2010); Cilluffo, Cardash, and Whitehead (2007); Conway (2012, 2017); Conway and McInerney (2008); Ducol (2012); Edwards and Gribbon (2013); Enomoto and Douglas (2019); Fischer and Prucha (2014); Frissen, Toguslu, Van Ostaeyen and d'Haenens (2018); Gartenstein-Ross and Grossmann (2009); Gendron (2016); Greenberg (2016); Gresser (2018); Hafez and Mullins (2015); Keller (2011); Pantucci, (2011); Payne (2009); Pearson (2015); Piazza and Guler (2019); Picart (2015); Ramsay (2009); Rudner (2016); Ryan (2010); Sabouni, Cullen, and	34

		Armitage, 2017; Torok (2013); Watkin and Looney (2019); Weimann (2014a, 2014b); Windsor (2018)	
Countering Radicalization	counter-narratives; counter radicalization; counter speech; de-radicalization	Agarwal and Sureka (2015); Archetti (2015); Ashour (2010); Bakker and de Graaf (2011); Baruch, Ling, Warnes, and Hofman (2018); Braddock and Horgan (2015); Briggs and Feve (2013); Ernst et al. (2017); Lee (2019a, 2019b); McDonwell-Smith, Speckhard, and Yayla (2017); Meleagrou-Hitchens, (2017); Neumann (2013); Schmid (2013); Schmitt, Ernst, Frischlich, and Rieger (2017)	15

Note: US-American as well as British spelling of the search terms were used, as well as wildcard search terms when possible.

As shown in Table 1, our subject matter is divided into three topical areas with a set of search terms for each. These areas are: *radicalization* (more generally), and *right-wing extremism* and *jihadism* (more narrowly). In line with Holt et al. (2015), we decided to examine right-wing and jihadist ideologies together, despite the existing thematic differences between them. Our argument in favor of this integrative approach is that the mechanisms driving radicalization processes forward on the individual level appear to be fundamentally similar across the ideologies (Bjørgo, 2011; Chermak & Gruenewald, 2014; Köhler, 2015; Myagkov, Shchekotin, Chudinov, & Goiko, 2019). In addition, we believe that radicalization scholarship can only benefit from an integration of theories.

Using Boolean operators, each of these topical areas was combined with a set of search terms surrounding *Internet use* (such as online, Internet, web, cyber, digital, etc.). Our search yielded literature that has burgeoned especially in the last decade, highlighting the contemporaneity of the topic. In addition, with 88 studies resulting from our search, the need for more research becomes evident. As our review will demonstrate, this is especially true for research that *explains* radicalization by testing causal influences.

Results

Online Right-Wing Extremism

The majority of articles we found in our first topical area *online right-wing extremism* are US-American (Back, 2002), reflecting the existing predominance of right-wing extremist websites in this geographical region. This is likely the result of differences in legal frameworks: right-wing extremist media content is usually censored as Holocaust denial or demagoguery by German law. The US-American constitution protects freedom of speech under the First Amendment and prosecutes such content as hate crime only in extreme cases (Jenness & Grattet, 2002; Rorive, 2002). Therefore, many European extremist groups host their websites on US-American webportals (Jähnke, Laufhütte, & Odersky, 2006; Timofeeva, 2002).

As previously mentioned, almost all research on online right-wing extremism is limited to textual analyses of websites, discussion forums, and news sites (Daniels, 2009a, 2009b; Gill et al., 2017), and neglects the users of such sites. Instead, existing studies yield a list of media characteristics that supposedly catalyze radicalization. Among these characteristics are: (1) implicit spread of propaganda, (2) collective identity, (3) lack of censorship, (4) access to prohibited contents, (5) recruitment of new members, and (6) anonymity.

Daniels (2008, 2009a, 2009b) analyzes the tactics of extremists on the one hand, and the make-up of racist websites on the other. She finds that many of these tactics and sites are *cloaked* and do not explicitly reveal a connection with the extreme right-wing community. The websites portray democratic values such as freedom of speech, education, and animal protection on the surface (Daniels, 2008; Glaser & Schneider, 2012; Blomberg & Stier, 2019), but spread "white supremacy" propaganda behind these seemingly factual cloaks (Daniels, 2008, p. 129) – using rhetorical devices to legitimize and justify the right-wing group as a resourceful political actor (Blomberg & Stier, 2019). Explicit references to racism and nationalism are mostly lacking (Glaser & Schneider, 2012) and ideologically neutral content is imitated (Myagkov et al., 2019). In an empirical study with ten participants, Daniels

(2009b) shows that while searching for information on Martin Luther King, users happen upon the right-wing extremist site www.martinlutherking.org and are incapable of distinguishing this cloaked website from other, trustworthy sources of information. And, because website messages are so subtle (Siapera, 2019), they withstand censorship and banning by providers, thereby increasing the probability to survive under increasing state censorship (Rafael, 2011; Myagkov et al., 2019; for a description of blockchain technology that withstands censorship see Mott, 2019).

One of the most pronounced features of right-wing extremist websites is their potential for a collective identification that goes beyond local geographies. A "translocal whiteness" (Back, 2002, p. 635) or a "form of white identity not tied to a specific location, but reimagined as an identity that transcends geography" (Daniels, 2008, p. 137), is conducive for individuals across the world to unite and find spaces of belonging (see Richards, 2019, for recent evidence). Studies also show that ingroup identities are coupled with outgroup derogation of social groups such as ethnic and religious minorities as well as LGBTQ individuals. Scrivens, Davies, and Frank (2018) demonstrated that online postings about these groups become more polarized over time, thereby shaping the collective identity of the right-wing extremist community. Polarization processes unfold fastest in the anti-LGBTQ discourse, slowest in the anti-Black discourse, and at moderate rates in the anti-Semitic discourse (see the deindividuation section further below). Collective identities are facilitated by several strategies (presented in Glaser & Schneider, 2012; Shafer, 2002), such as (1) establishing collective agreement on identities and roles, (2) offering shared experiences (concerts, demonstrations, etc.), (3) offering help in moments of crisis, (4) adapting website contents to target-group specific interests (women, the young, etc.), and (5) actively recruiting members.

Translocal identity building is not without its challenges, however, especially because national interests are at the core of right-wing extremist thought (Busch, 2005; Köhler, 2014). In addition, language barriers and the digital divide limit the accessibility of right-wing extremist identities (Busch, 2005). In their content analysis of US-American right-wing

Odağ, Leiser & Boehnke: Reviewing the Role of the Internet in Radicalization Processes

extremist websites, Gerstenfeld et al. (2003) discover the lack of connection between right-wing extremist groups, suggesting that the US-American online scene is decentralized.

Most of these studies present empirical text analyses at best and conviction-driven conceptual reasoning at worst. Among the empirical studies, we found only a handful with a focus on media users, some of which are descriptive in nature (the qualitative studies presented below), others more causal (the experimental studies presented below). It is interesting to note that the descriptive studies mostly work with radicalized samples; the experimental studies emphasize radicalization mechanisms in non-radicalized samples.

By online-interviewing eleven members of the Dutch branch of *Stormfront,*[8] De Kouster and Houtman (2008) examined how virtual communities are created and sustained online. Interviewees stressed that it was central for them to experience connection and belonging to others who share their ideological viewpoint. Using the Stormfront website, members felt less isolated, more accepted in expressing extremist attitudes. This was especially relevant for members who had experienced stigma and exclusion in the 'real' world. Members without this experience reported using the website as a platform for political action and communication — without looking for collectiveness. Interviewing eight dropouts from the German right-wing extremist scene, Köhler (2014) obtained similar findings. Apart from experiencing belonging, interviewees particularly praised the possibility of contributing to the movement and receiving a sense of self-worth. In their experimental study Rieger, Frischlich, and Bente (2013; 2019) examined how young men evaluated right-wing extremist propaganda videos. Extremist propaganda was on average rejected, most strongly by participants with higher education and the same national or religious background as the propagators themselves (the same ingroup; see also Rieger, Frischlich, & Bente, 2017, 2019). Rejection was weaker when propaganda was presented in a humorous way and when participants endorsed authoritarian attitudes in line with the values presented (Rieger et al., 2013, 2017, 2019). Frischlich, Rieger, Hein, & Bente (2015) demonstrated that the persuasive power of right-wing YouTube propaganda videos was stronger under conditions of existential threat and anxiety, i.e., when subjects were vulnerable and wanted to protect their ingroup

---

[8] Stormfront.org is one of the largest right-wing websites, comprising sub-forums in various languages.

members. In addition, uncertainty increased identification with the national group in these studies (Rieger et al., 2017). In a recent experiment using some of the existential threat operationalizations of the above studies, Reeve (2019) examined the extent with which participants engaged with a fictitious radical website. Reeve found that even among initially non-radical individuals those with a social dominance orientation, a stronger identification with the radical ingroup, and a stronger outgroup hostility were the ones most likely to sympathize with and support website goals. Johann and Oswald's (2019) experiments yielded encouraging counter-results: political knowledge and thematic interest reduced the threat effect of propaganda videos on audiences. At the same time, online propaganda videos differed little from written mass-media reports in their emotional effects, pointing to a reduced causality between online media messages and radicalization.

In another causal, though non-experimental study by Gill et al. (2017), 223 radicalized individuals in the UK were coded with respect to numerous Internet-related activities and their presence or absence. The study showed that right-wing-motivated radical behavior (such as planning an attack, committing a lethal or improvised explosive device attack, recruiting, and engaging in non-virtual network activities) is highly likely to be learned online, and even more so if the specific offense is difficult to execute and aimed at harder targets. The study also showed that right-wing behavior is roughly 3.5 times more likely to be executed by offenders with right-wing ideology than by offenders with jihadist ideology. The authors explained this finding based on the different opportunity structures of the two ideology groups. Most importantly, the authors concluded that "radicalization and attack planning are not dependent on the Internet and researchers need to look at behaviors, intentions, and capabilities" (p. 113), thereby raising evidence-based doubts about the causality of online behavior and radicalization. The authors demand a closer inspection of the individual motives, needs, and gratifications sought by offenders, rather than purely examining the characteristics of the environments, they choose to radicalize in.

Taken together, the scarce research concerning the role of the Internet in right-wing extremism shows that motivations to use right-wing extremist sites are heterogeneous and comprise affiliative, communicative, identity-related, emotional, and material needs.

Individuals with and without right-wing ideologies use available websites. Those without right-wing ideology are lured into the scene mostly by coincidence and by means of seemingly benign, democratic viewpoints presented on cloaked websites. Existing studies indicate that right-wing extremist online behavior depends on a variety of factors on the side of individual users (age, gender, education, religious and national membership, and degree of stigmatization) as well as situational (existential threat, conflict) and structural factors (geography, genre of extremist messages). Available research has not yet examined the complex interplay of these factors taken together.

Online Jihadism

Like the literature on online right-wing extremism, the literature on online jihadism is highly text-based and says little about causal interactions between website and user characteristics (see King & Taylor, 2011, for an exception). Reported reasons for the popularity of jihadist content in the Western world are: (1) anonymity and lack of censorship, (2) ease and speed of access, (3) low costs, (4) large audience size, (5) affordances of the Web 2.0, and (6) provision of identity for marginalized individuals (Awan, 2007; Cilluffo et al., 2007). A stronger weight is placed here on the aspects *lack of censorship*, *audience size*, *recruitment*, and *self-radicalization*. Therefore, radicalization in this context has been characterized as a process that unfolds both top-down (facilitated by organizational structures) and bottom-up (facilitated by social movements on the users' end; Baaken & Schlegel, 2017).

Jihadist content is very explicit in communicating ideology. According to Levin (2002), jihadist websites exploit the lack of Internet censorship for a free dissemination of jihadist speech. Social media companies like Twitter, YouTube, and Facebook rarely live up to their commitment to ban hate speech (Glaser & Schneider, 2012). The search term *kill the infidels* yields thousands of videos on YouTube (4.350 in 2018), for example, benefitting the growth of jihadist groups (Weimann, 2014a). Recent research shows that prominent jihadist propaganda terms like "kufar" (the derogatory Arabic term for Non-Muslim) precede specific terrorist attacks in time (Enomoto & Douglas, 2019), fueling online radicalization by decontextualizing messages from the Koran (Frissen, Toguslu, Van Ostaeyen, & d'Haenens,

2018). Factors such as easy access, low costs, and speed have received attention in the literature on online jihadism, as facilitators of the broad jihadi presence on nearly all mainstream Internet forums in most languages (Ducol, 2012; Fischer & Prucha, 2014; Rudner, 2016; Ryan, 2010; Torok, 2013). Victim and jihad videos have been identified as powerful accelerators of radicalization processes in this context (Holt et al., 2015; see Agarwal & Sureka, 2015, for a focused-crawler based methodology to detect such videos on YouTube).

Ducol (2012) examined the French jihadi online scene by archiving existing websites with explicit jihadist, violence-glorifying content, tracking their hyperlinks to other sites. Many of these interlinked websites were not French and represented other European languages. Supported by an 'insider' of the scene, Fisher and Prucha (2014) studied the 66 most pertinent online accounts associated with the jihadist forum Shumukh al-Islam. Fifty-six percent of these accounts were in Arabic, 41 percent in English, and 3 percent in French. Even though Arabic accounts constituted the majority, many of these were bilingual, pointing to a considerable amount of international online content. Hence, the online jihadist scene reaches beyond territorial borders more easily than the right-wing extremist scene, and underlines jihadist attempts to become established in the Western world. This is also an indicator of the presence of radical individuals in the West serving as messengers of jihadist content in countries outside the Arab world (Conway, 2012). Just like in the right-wing extremist online context, the digital divide poses a substantial barrier to the global spread of jihadist ideology online (Awan, 2007).

The global spread of jihad can also be ascribed to its legitimization on the Internet by leading figures of the scene as a holy war (Keller, 2011). The Internet represents an "interactive, virtual Umma" (Keller, 2011, p. 82, translated from German by the authors) through which online activists earn the status of a mujaheed (martyr; Keller, 2011) or "media mujahidin" (Fischer & Pruscha, 2014, p. 73). In other words, online activism constitutes a legitimate means to honor God (Weimann, 2014a), making it easy for sympathizers to contribute to the scene from their current locations without having to relocate to war zones.

Recruitment is at the forefront of research on online jihadism (Greenberg, 2016). One identified strategy is *narrowcasting* (Weimann, 2014a, p. 3; see also Gendron, 2016), according to which jihadist information is sent to a group of individuals who are purposefully contacted based on their interests, demographics, and value orientations (see Windsor, 2018, and Pearson, 2015, for case studies of female online recruitment for ISIS). Western social media platforms such as Facebook, MySpace, Twitter, and Second Life are exploited for collecting user information (Weimann, 2014a).

Ducol's (2012) link analysis evidences that 51 percent of the users of jihadist forums are directed to these platforms through links on regular Internet sites such as YouTube or Google Videos; 41 percent are guided to jihadist websites through social contacts offline. Ducol's (2012) study shows that users are directed to jihadist sites by actively searching for such content on the Web. By contrast, Quayle and Taylor (2011) claim that with few exceptions young individuals are directed to extremist websites by coincidence. Weimann (2014a) assumes that a moderating factor is the degree of sympathy with jihadism: hardcore followers are quick in accessing jihadist online forums; 'beginners' are more likely to be directed to them by other mainstream social media.

One further recruitment strategy is the direct reach of so-called *lone wolves* (Back, 2002; Bakker & de Graaf, 2011; Pantucci, 2011; Post, McGinnis, & Moody, 2014; Weimann, 2014b; a recent thorough study of 49 lone-actor terrorists in the UK can be found in Gill, Corner, McKee, Hitchen & Betley, 2019). According to Weimann (2014b), potential sympathizers (identified through social media) are initially contacted through email, YouTube videos, Twitter posts, etc. In the second step, sympathizers are promoted to members of the online jihad community. Next, recruiters exploit the new members' experiences of exclusion and loneliness, and individuals markedly dissatisfied with the system are encouraged to radicalize. In the last step, potential terrorists of the lone wolf type are provided with instructions for constructing bombs or weapons, along with advice concerning the target and time of attack. Recruitment thus unfolds entirely online, from the step of recruiting to planning an attack (see similar findings in Böckler, Hoffman, & Zick, 2015; Conway, 2012; Ramsay, 2009; Weimann, 2014b; see a more critical view in Hafez and Mullins, 2015). The

term "homegrown terrorism" is used to refer to individuals in the West who radicalize through the Internet (Gartenstein-Ross & Grossmann, 2009; Neumann, 2013). Such radicalization processes can be independent of recruitment, thus representing *auto-radicalization* (Conway & McInerney, 2008) or *self-radicalization* processes (Pearson, 2015). Recent findings support the role of the Internet in fostering the radicalization process of lone wolves by providing them with the necessary social networks (Holt, Freilich, Chermak, Mills, & Silva, 2019). It should be noted, however, that pertinent literature reviews have raised doubts about the ability of the Internet to radicalize individuals without contacts to radical networks in the 'real' world. In their review of 15 cases of radical extremism identified by a collaboration of researchers, police, and counter terrorism units in the UK, Von Behr et al. (2013) show that extremists typically have virtual or physical contact with figures within the radical scene. Similarly, in their study of 223 offenders in the UK mentioned above, Gill et al. (2017) demonstrate that online radicalization goes together with offline interactions with co-ideologues. An isolated focus on online radicalization thus appears insufficient for counter-action attempts.

Available studies suggest that particularly young people are in danger of being pulled into the jihadist movement (Greenberg, 2016; Huey, 2015; Schils & Verhage, 2017; see also Venhaus, 2010). This appears to be a consequence of (1) their media savviness (see the term *digital native* in Glaser & Schneider, 2012, p. 42), and (2) their developmental task of identity-construction (Boehnke, Münch, & Hoffmann, 2002). At the same time, jihadist texts target the young directly (as well as children; see Watkin & Looney, 2019), in appealing and 'cool' ways, and providing room for content production (e.g., in the shape of memes and political jamming; Huey, 2015). Cheong and Halverson's (2010) rhetorical analysis of a text corpus from 290 primary Al Qaeda sources revealed a discourse of collective identity construction, addressing especially young people in need of moral and social structures (for similar uses of non-extremist social media contents, see Barker, 2009; Sun, Ya-li, Peng, & Boehnke, 2011). According to Venhaus (2010), "Al-Qaeda's ability to turn [youth] to violence is rooted in what each seeks: revenge seekers need an outlet for their frustration, status seekers need recognition, identity seekers need a group to join, and thrill seekers need

adventure." In line with this claim, targeting young people is perfidious because adolescence represents a vital time for political opinion formation (Hoffmann & McGee, 2003) and young media-savvy individuals often withstand parental media control (Geeraerts, 2012). Livingstone, Haddon, Görzig, and Olaffson (2011) examined the Internet use of 25,000 children and adolescents from 25 European countries and showed that among young cohorts, viewing radical content online correlates with several factors: (1) self-efficacy and sensation seeking, (2) frequency of Internet use, (3) confrontation with risky behavior offline, (4) above average psychological problems, (5) tendency to compensate the lack of social relationships in the 'real' world with online relationships. In this study, 20 percent of respondents aged 15 to 16 reported having visited hate sites in the previous year (p. 28), underlining the danger of extremist sites especially for this age group.

Social psychological radicalization factors such as group deprivation and identity conflicts have been identified as user-driven forces of radicalization (King & Taylor, 2011), along with the fundamental need to gain significance (see the *Quest for Significance* theory in Kruglanski, Bélanger, & Gunaratna, 2019, though the theory does not refer to *online* forms of radicalization, but radicalization more broadly). People with experiences of uprooting, discrimination, unemployment (such as second-generation migrants) are especially endangered (Klein, 2012; Sabouni, Cullen, & Armitage, 2017). To decipher the radicalization logic of al-Qaeda online presence, Gresser (2018) drew on a sequence of four steps suggested by Social Movement Theory: individuals initially experience a grievance which shakes their belief system (cognitive opening); individuals are encouraged to search for alternative ideologies (religious seeking); individuals find an ideology that provides an understanding for the personal grievance (frame alignment); individuals engage in activities that solidify the new ideology (socialization). In their attempt to present a comprehensive overview of the "puzzle" pieces (p. 958) contributing to radicalization, Hafez and Mullins (2015) also underline the role of grievances and experiences of discrimination as important catalysts. Social media function as support structures in this context, forging "a sense of communal belonging that is likely to appeal to some alienated individuals" (p. 969) and their need for

significance, especially in contexts with high levels of Muslim-hatred and exclusion (Mitts, 2019).

Similar to the literature on right-wing extremism, research on online jihadism highlights the role of collective identity and the ease with which ideological online communities can provide belonging (Back, 2002, Byrne et al., 2013; Cilluffo et al., 2007; Edwards & Gribbon, 2013; Hafez & Mullins, 2015). This is typically done by calling for Muslim unification (Payne, 2009), using slogans and symbols as propaganda (Cheong & Halverson, 2010), ritualizing religion (Carvalho, 2014), and warning of an apocalyptic scenario (Berger, 2015). The enhanced interactivity, reach, user friendliness, and lower cost afforded by Web 2.0 has greatly facilitated communitarization (Weimann, 2014a) consequently enabling individuals to find like-minded others in spaces of collective belonging (Lee & Leets, 2002). *Echo chambers* (Cilluffo et al., 2007; Edwards & Gribbon, 2013; Post et al., 2014) reflect what viewers want to see: their own ideological points of view in a cohesive network of similar people — ostracized in the 'real' world, but uncensored on the Web (Hafez & Mullins, 2015; see Yardi & boyd, 2010, for processes of polarization in this context). Archetti (2015) notes that extremist groups appropriate identities to the extent that the individual identity is in equilibrium with the group identity.

The experimental studies presented above confirm the causal relationship between threat, group identification, and the perception of jihadist videos as persuasive (Frischlich et al., 2015; Rieger et al., 2013, 2019). Group identification moderates the persuasive effects of both propaganda and counter-propaganda messages (Frischlich et al., 2017; Schmitt et al., 2017). On a positive note, political knowledge and education appear to buffer the effect of threat in propaganda videos (Johann & Oswald, 2019). Research on the persuasive effects of *counter-narratives* is currently receiving heightened attention in the literature (Ashour, 2010; Braddock & Horgan, 2015; Briggs & Feve, 2013; Ernst et al., 2017; Lee, 2019a, 2019b; McDonwell-Smith, Speckhard, & Yayla, 2017), though the existing evidence is inconclusive, pointing to more challenges than successful counter-narrative interventions (Meleagrou-Hitchens, 2017).

We conclude that the literature on online jihadism comprises an (insufficient) number of plausible text-analyses attempting to understand the phenomenon of online jihadism through jihadist Web content. It shows that jihadi websites explicitly spread jihadi ideology across territorial borders and use sophisticated methods of recruitment, exploiting the information that potential recruits reveal about themselves on social media. Young individuals, and those with experiences of exclusion and stigma, are particularly easy targets that the jihadi scene feeds with collective identity and belonging. At the same time, recent research has shown that radicalization is not exclusively a matter of engaging with radical discourse online. Online and offline spheres appear to be intricately interwoven, but little is known about interactions between them. Causal influences of online/offline recruitment on users' identities also largely remain a matter of speculation at this point.

Discussion of Present Research and Avenues for the Future

Research on online right-wing extremism and online jihadism focuses predominantly on the phenomenology of right-wing and jihadist websites and neglects both the users of the websites as well as the potential causal relationships between the websites and user radicalization. It shows that: (1) right-wing and jihadist ideologies are spread on the Internet as part of cloaked as well as openly radical websites; (2) they make use of affordances of the Internet (such as user-friendliness, speed, reach, lack of censorship, etc.); (3) they particularly target young individuals and those with experiences of social exclusion as potential recruits; (4) they provide spaces for collective identification and (5) self-radicalization in virtual echo chambers which is (6) facilitated through face-to-face contacts.

In accordance with Aly (2017) we argue that the existing research on online extremism clearly lacks a user focus. Processes of radicalization on the users' side are extrapolated from content on the side of the medium. Such an approach "reflects a woefully outdated model of public-media interactions" (Archetti, 2015, para. 3), regarding media users as passive recipients of media content: as early as 1948, Harold D. Lasswell modelled communication as an active interplay between sender, receiver, and channel, as well as

contents of communication, as exemplified in his "5W" communication formula W*ho says* w*hat to* w*hom in* w*hat channel with* w*hat effect?* (Lasswell, 1948). The Uses and Gratifications approach also demonstrated decades ago that users actively select and process specific media contents to satisfy their individual desires (Blumler & Katz, 1974). The availability of right-wing extremist or jihadist content on the Web does not mean that these messages automatically radicalize the media user (Archetti, 2015). Such effects need yet to be tested, along with the conditions under which the assumed effects hold (such as in the research program by Frischlich, Rieger, & Bente, above). The existing research is impressively void of such approaches. At the same time, new theoretical approaches to user behavior are in the making (see the Cognitive-Emotive Model of Radicalization in Howard, Poston, & Benning, 2019; see the cognitive mechanisms behind violent extremism modeled in Kruglanski, Fernandez, Factor, & Szumowska, 2019, though this research is not explicitly about online radicalization). And more recently, researchers have started to examine individual characteristics as a viable avenue to radicalization (Gill et al., 2019) and produced more causal designs (e.g., Gill et al., 2017; Reeve, 2019). But a lot more of these approaches are needed. Least of all, recent research raises doubts about the direct causal influence of the Internet on radicalization (Gill et al., 2017).

Certainly, research on extremist ideology is difficult to realize, especially because users of extremist Internet platforms are situated on the verge of illegality and therefore hard to reach (Von Behr et al., 2013). Similarly, the academic community is an integral part of the very society that members of extremist groups aim to fight. As a consequence, many online extremist networks have prohibited access for non-members. Even with sites that have unrestricted access, the likelihood of obtaining informed consent is close to null. Netnographies (Kozinets, 2015) are therefore doomed to remain clandestine and ethically dubious (Hutchinson, 2014; Markham & Buchanan, 2015). Wherever possible in ethically acceptable ways, netnographies could yield precious information on producers, users and

produsers[9] of extremist Internet content (Conway, 2017). Still, such research would continue to be descriptive and fail to explain causal mechanisms in radicalization processes.

As demonstrated above, radicalization scholarship has increased efforts to understand and explain processes of online radicalization in non-criminal and non-radicalized samples by means of experimental or large-scale survey designs (see Gil et al., 2017; Reeve, 2019; Rieger et al., 2019). Despite these few examples, however, we agree with Geeraerts' claim (2012) that we find ourselves in dire need of explanatory theories and that experimental and longitudinal designs could help test the causal link between extremist Web contents and radicalization. At the same time, considering that experimental research is criticized for lacking external validity, and longitudinal surveys for being conflicted with sampling bias (Gideon, 2012), we are not convinced that such designs will in and by themselves increase our understanding. Instead, prospective longitudinal designs examine the development of large random samples of participants over time, starting at an age at which the phenomenon in question (here: right-wing extremism and jihadism) is not yet relevant (e.g., during primary school). Such a design would lead to rich causal conclusions and be easy to integrate into existing large-scale panel studies (such as the German National Educational Study; https://www.neps-data.de/de-de/home.aspx).

In addition, we are especially surprised to see that the literature has completely ignored existing media-psychological research that is highly relevant for the topic: the vast field of media and violence (Brockmyer, 2013; Freedman, 2002) as well as research on deindividuation effects of computer-mediated communication (Postmes, Spears, & Lea, 1998). Persuasion is also highly pertinent, but has already received attention in the context of extremism research (see Braddock & Dillard 2016; Braddock & Horgan 2015).

---

[9] People who use or consume information from an online environment like the Internet or social media, and, at the same time' produce or create information for other users.

Research on Media Violence and Aggression

Numerous studies in the tradition of media and violence research vastly proliferated as a response to school shootings in the USA (Columbine High School in 1999; Sandy Hook Elementary School in 2012), Germany, (Emsdetten in 2006; Winnenden in 2009), or Finland (Tuusula in 2007). These studies have consistently shown that violent media messages cause aggressive cognition, affect, and behavior, and reduce prosocial concern (Anderson et al., 2010; Greitemeyer & Mügge, 2014). At the same time, the sizes of such effects are so small (ranging between $r = 0.15$ in longitudinal research to $r = 0.32$ in experimental research; Brewer, 2011) that scholars have questioned the practical relevance of such relationships (Ferguson, 2002; Ferguson & Kilburn, 2010). The literature on the effects of media violence on aggression demonstrates that aggression is predicted by a complex interplay of numerous factors such as gender (Bartholow & Anderson, 2002; Lemmens, Bushman, & Konijn, 2006), age (Griffiths, Davies, & Chappel, 2004; Mares, Oliver, & Cantor, 2008), education (Bijvank, Konijn, & Bushman, 2007; Lemmens et al., 2006), personality (empathy in Hoffner & Levine, 2005; see counter-evidence for empathy in Rosaen, Boyson, & Smith, 2006; neuroticism in Krcmar & Kean, 2005), and the social environment (Brady & Matthews, 2006; Slater, Henry, Swaim, & Anderson, 2003; Vandewater, Lee, & Shim, 2005). Young, less educated boys with a conflict-laden family environment and contacts to deviant peers are especially drawn to violent media content to play with emotionally challenging states of arousal as part of their gender socialization. No one factor alone (least of all violent media messages themselves) can sufficiently explain aggressive cognition and behavior. Instead, user, context, and media characteristics interact. Slater et al. (2003) liken this relationship to a *reinforcing spiral* mechanism according to which media users who are attracted to violent media contents are also more affected by them. More recently, radicalization researchers have in fact drawn on media and violence research. In their study on the effects of extremist propaganda on violent responses Shortland, Nader, Imperillo, Ross, and Dmello (2017) could show that individuals with low and medium trait aggression were actually more pro-social after exposure to extremist content. However, clearly, more research is needed.

Against the backdrop of the mass of studies existing in the area of media violence and aggression, it is surprising to see that research on radicalization has so far mostly focused on one component of the puzzle: the Internet. Radicalization is more likely to be the outcome of a myriad of factors working together (for a similar argument, see Hafez & Mullins, 2015). The identification of such factors and their interplay constitutes a vital territory for future research.

Research on Computer-Mediated Deindividuation Effects

The scarce research that exists on the impact of extremist Internet content on radicalization consistently points to collective identity and belonging as factors that lure individuals to extremist ideologies, especially those that have experienced stigmatization. The concept of collective identity therefore constitutes a pressing point of departure for future research (Archetti, 2015; Hafez & Mullins, 2015).

Collective identity has already been included into models that explain the psychology of computer-mediated communication (Kiesler, Siegel, & McGuire, 1984). A model that has received substantial empirical evidence is the *Social Identity Model of Deindividuation Effects* (SIDE; Postmes et al., 1998; Spears & Postmes, 2015). Drawing on social identity theory (Tajfel, 1978), the model claims that anonymity and immersion in computer-mediated groups can strengthen the salience of social identity and lead to a decrease in the perception of individual features of oneself and others. This process known as *depersonalization* amplifies cognitive efforts to perceive the ingroup (and the outgroup) as a coherent entity. Anonymity in computer-mediated communication thus leads to stereotypical perceptions of self and others, as well as processes of polarization between them (Douglas & McGarty, 2002). Group decisions may become more extreme than the average group opinion would suggest (Lea & Spears, 1991) and facilitate anti-normative behavior (such as *flaming*; Kiesler, Siegel, & McGuire, 1984). Scrivens et al. (2018) have shown that processes of polarization also unfold in right-wing radical discourses online.

Research on SIDE has particularly focused on crowds, online teams, and communities (Chan, 2010; Lea, Rogers, & Postmes, 2002). More recently, an altered version of SIDE - the Social Identity Model of Collective Action (SIMCA) - was developed to explain group behavior in larger social movements (such as the Gezi Park protests, Odağ, Uluğ, & Solak, 2016; also see Spears & Postmes, 2015). Following the SIDE model, this research highlighted that individuals are willing to become active in social movements to the extent that they perceive themselves as part of a larger collective (collective identity), their social circumstances as unjust (social injustice), and their group to be effective in generating change (perceived efficacy; Odağ et al., 2016).

The points of overlap between social identity research in computer-mediated communication and research on the role of the Internet in radicalization are obvious. The computer-mediated processes depicted above are likely to unfold in extremist online groups as well, particularly as their social identity is constructed as a demarcation from mainstream society (see recent evidence for this claim in Reeve, 2019). Research on computer-mediated deindividuation effects could not only help to understand the individual/social identity dynamics in extremist groups, but also yield conditions under which individual/social identities can possibly be prevented or altered. Most importantly, this research could potentially yield interventions for equipping marginalized individuals with alternative, non-extremist identities. Such intervention projects have already received research funds from the EU: one example is the project *Countering Propaganda by Narration Towards Anti-Radical Awareness* (CONTRA), a radicalization prevention program for schools in Germany (see www.project-contra.org).

Discussion

The existing literature on the role of the Internet in radicalization processes is laden with direct inferences from Web content to user radicalization. Such inferences are daring to the extent that they lack empirical evidence (Archetti, 2015; Von Behr et al., 2013) and harmful to the extent that they oversimplify a complex social phenomenon by placing blame on the

medium alone. Studies on the effects of extremist content on users are rare (Geeraerts, 2012; Ramsay, 2009), rendering causal conclusions about the impact of extremist messages purely hypothetical. Surprisingly little is currently done with regard to understanding causal mechanisms, and much of the existing literature is characterized by "technological determinism", a point of view "demoniz[ing]" the Internet as the main cause of radicalization (Archetti, 2015, para. 5). Interventions to counter radicalization, however, are in dire need to account for the complexity of the phenomenon (Baruch, Ling, Warnes, & Hofman, 2018). On an optimistic note, a handful of studies recently published have already started to create causal designs and explain (rather than describe) online radicalization processes (e.g., Gill et al., 2017; Reeve, 2019; Rieger et al., 2019). Still, a lot more research is needed. Needless to say, we cannot be sure if such causal conclusions are perhaps already prevalent in the 'grey' literature or in the literature on specific social media effects that were beyond the scope of this review. An extension of the present synthesis would thus be helpful.

Taken together, our review is not to trivialize the potential impact of Internet use on radicalization. Instead, we attempt to identify possibilities for future research, ideally developing more rigorous causal designs which encompass the plethora of factors that potentially influence radicalization, with Internet features constituting only one. The many factors identified in media violence research, along with social identity mechanisms ensuing through the anonymity of the Internet, represent fruitful starting points for such future studies.

References

Agarwal, S., & Sureka, A. (2015). Topic-specific YouTube crawling to detect online radicalization. In *International Workshop on Databases in Networked Information Systems* (pp. 133-151). Springer, Cham.

Aly, A. (2017). Brothers, believers, brave mujahideen: Focusing attention on the audience of violent jihadist preachers. *Studies in Conflict and Terrorism*, *40*(1), 62-76.

Anderson, CA., Shibuya, A., Ihori, N., Swing, EL., Bushman, BJ., Sakamoto, A., ... Barlett, C. P. (2010). Violent video game effects on aggression, empathy, and prosocial behavior in Eastern and Western countries: A meta-analytic review. *Psychological Bulletin*, *136*(2), 151-173.

Ashour, O. (2010). Online de-radicalization? Countering violent extremist narratives: Message, messenger and media strategy. *Perspectives on Terrorism, 4*(6), 15-19.

Archetti, C. (2013). *Understanding terrorism in the age of global media: A communication approach.* Basingstoke, England: Palgrave Macmillan.

Archetti, C. (2015). Terrorism, communication and new media: Explaining radicalization in the digital age. *Perspectives on Terrorism*, *9*(1), 49-59.

Archer, T. (2011). *Breivik's swamp: Was the Oslo killer radicalized by what he read online?* Foreign Policy. Retrieved December 12, 2019 from http://foreignpolicy.com/2011/07/25/breiviks-swamp/

Awan, A. (2007). Virtual jihadist media: Function, legitimacy and radicalizing efficacy. *European Journal of Cultural Studies, 10*(3), 389-408.

Back, L. (2002). Aryans reading Adorno: Cyber-culture and twenty-first-century racism. *Ethnic and Radical Studies, 25*(4), 628-651.

Bakker, E., & de Graaf, B. (2011). Preventing lone wolf terrorism: Some CT approaches addressed. *Perspectives on Terrorism, 5*(6), 43-50.

Barker, V. (2009). Older adolescents' motivations for social network site use: The influence of gender, group identity, and collective self-esteem. *CyberPsychology and Behavior, 12*(2), 209-213.

Bartholow, B. D., & Anderson, C. A. (2002). Effects of violent video games on aggressive behavior: Potential sex differences. *Journal of Experimental Social Psychology*, *38*(3), 283-290.

Baruch, B., Ling, T., Warnes, R., & Hofman, J. (2018). Evaluation in an emerging field: Developing a measurement framework for the field of counter-violent-extremism. *Evaluation, 24*(4), 475-495.

Hill, J. (2019). Germany shooting: Horror of Jews targeted in Halle attack. *BBC*. Retrieved December 12, 2019 from https://www.bbc.com/news/world-europe-49997779?intlink_from_url=https://www.bbc.com/news/topics/crm5pkwjyjyt/germany-gun-attack&link_location=live-reporting-story

Baaken, T., & Schlegel, L. (2017). Fishermen or swarm dynamics? Should we understand jihadist online-radicalization as a top-down or bottom-up process? *Journal for Deradicalization, 13*.

Benson, D. C. (2014). Why the Internet is not increasing terrorism. *Security Studies, 23*(2), 293–328.

Berger, J. M. (2015). The metronome of apocalyptic time: Social media as a carrier wave for millenarian contagion. *Perspectives on Terrorism, 9*(4), 61-71.

Bijvank, M. N., Konijn, E. A., & Bushman, B. J. (2007, May). *Bridging the video game gap: Relating games, players, and their motivations*. Paper presented at the Annual Meeting of the International Communication Association, San Francisco, California.

Bjørgo, T. (2011). Dreams and disillusionment: Engagement in and disengagement from militant extremist groups. *Crime, Law and Social Change*, *55*(4), 277-285.

Blumler, J. G., & Katz, E. (1974). *The uses of mass communication.* Newbury Park, CA: Sage.

Boehnke, K., Münch, T., & Hoffmann, D. (2002). Development through media use? A German study on the use of radio in adolescence. *International Journal of Behavioral Development, 26*, 193-201.

Böckler, N., Hoffmann, J., & Zick, A. (2015). The Frankfurt airport attack: A case study on the radicalization of a lone-actor terrorist. *Journal of Threat Assessment and Management*, 2(3-4), 153.

Braddock, K., & Dillard, J. P. (2016). Meta-analytic evidence for the persuasive effect of narratives on beliefs, attitudes, intentions, and behaviors. *Communication Monographs, 83*(4), 446-467.

Braddock, K., & Horgan, J. (2015). Towards a guide for constructing and disseminating counternarratives to reduce support for terrorism. *Studies in Conflict and Terrorism, 39*(5), 381-404.

Brady, S. S., & Matthews, K. A. (2006). Effects of media violence on health-related outcomes among young men. *Archives of Pediatrics and Adolescent Medicine, 160*(4), 341-347.

Briggs, R., & Feve, S. (2013). *Review of programs to counter narratives of violent extremism: What works and what are the implications for government?* (Vol. July, 2013). London: Institute for Strategic Dialogue.

Brewer, G. (2011). Media violence. In G. Brewer (Ed.), *Media Psychology* (pp. 9 – 27). Hampshire, England: Palgrave Macmillan.

Brockmyer, J. F. (2013). Media violence, desensitization, and psychological engagement. In K. Dill (Ed.), *The Oxford handbook of media psychology* (pp. 212-223). New York: Oxford University Press.

Burke, J. (2003). *Al-Qaeda: Casting a shadow of terror*. London: I.B. Tauris.

Busch, C. (2005). Rechtsradikale Vernetzung im Internet [Right-wing radical networking on the Internet]. *WeltTrends, 48,* 67-78.

Byrne, C. L., Nei, D. S., Barrett, J. D., Hughes, M. G., Davis, J. L., Griffith, J. A., ...
Mumford, M. D. (2013). Online ideology: A comparison of website communication and
media use. *Journal of Computer-Mediated Communication, 18*(2), 25-39.

Carter, J. A., Maher, S., & Neumann, P. R. (2014). "# Greenbirds: Measuring Importance and
Influence in Syrian Foreign Fighter Networks." The International Centre For the Study
of Radicalisation and Political Violence. Retrieved December 16, 2019 from
https://icsr.info/2014/04/22/icsr-report-inspires-syrian-foreign-fighters/.

Carvalho, C. (2014). 'Okhti' online - Spanish Muslim women engaging online jihad – a
Facebook case study. *Heidelberg Journal of Religions on the Internet, 6*, 24–41.

Chan, M. (2010), The impact of email on collective action: A field application of the SIDE
model. *New Media and Society*, *12*(8), 1313-1330.

Cheong, P. H., & Halverson, J. R. (2010). Youths in violent extremist discourse: Mediated
identifications and interventions. *Studies in Conflict and Terrorism, 33*, 1104-1123.

Chermak, S., & Gruenewald, J. A. (2014). Laying a foundation for the criminological
examination of right-wing, left-wing, and Al Qaeda-inspired extremism in the United
States. *Terrorism and Political Violence*, *27*(1), 133-159.

Cilluffo, F. J., Cardash, S.L., & Whitehead, A. J. (2007). Radicalization: Behind bars and
beyond borders. *Brown Journal of World Affairs, 13*(2), 113-122.

Conway, M. (2005). Terrorist web sites: Their contents, functioning, and effectiveness. In P.
Seib (Ed.), *Media and Conflict in the Twenty-First Century* (pp. 185-215). New York:
Palgrave Macmillan.

Conway, M. (2012). From al-Zarqawi to al-Awlaki: The emergence of the Internet as a new
form of violent radical milieu. *CTX: Combatting Terrorism Exchange*, *2*(4), 12-22.

Conway, M. (2017). Determining the role of the Internet in violent extremism and terrorism:
Six suggestions for progressing research. *Studies in Conflict and Terrorism, 40*(1), 77-
98.

Conway, M., & McInerney, L. (2008). Jihadi video and auto-radicalisation: Evidence from an exploratory YouTube study. In D. Ortiz-Arroyo, H.L. Larsen, D.D. Zeng, D. Hicks, & G. Wagner (Eds.), *Intelligence and Security Informatics* (pp. 108-118). Berlin: Springer.

Daniels, J. (2008). Race, civil rights, and hate speech in the digital era. In A. Everret (Ed.), *Learning Race and Ethnicity: Youth and Digital Media* (pp. 129-154)*,* Cambridge, MA: MIT Press.

Daniels, J. (2009a). Cloaked websites: Propaganda, cyber-racism and epistemology in the digital era. *New Media and Society, 11*(5), 659-683.

Daniels, J. (2009b). *Cyber racism: White supremacy online and the new attack on civil rights.* Lanham, MD: Rowman & Littlefield.

De Koster, W., & Houtman, D. (2008). Stormfront is like a second home to me: On virtual community formation by right-wing extremists. *Information, Communication and Society, 11*(8), 1153-1175.

Douglas, K. M., & McGarty, C. (2002). Internet identifiability and beyond: A model of the effects of identifiability on communicative behavior. *Group Dynamics: Theory, Research, and Practice, 6*(1), 17-26.

Ducol, B. (2012). Uncovering the French-speaking jihadisphere: An exploratory analysis. *Media, War and Conflict, 5*(1), 51-70.

Dunbar, N. E., Connelly, S., Jensen, M. L., Adame, B. J., Rozzell, B., Griffith, J. A., & O'Hair, H. D. (2014). Fear appeals, message processing cues, and credibility in the websites of violent, ideological, and nonideological groups. *Journal of Computer-Mediated Communication, 19*(4), 871-889.

Edwards, C., & Gribbon, L. (2013). Pathways to violent extremism in the digital era. *The RUSI Journal, 158*(5), 40-47.

Enomoto, C. E., & Douglas, K. (2019). Do internet searches for islamist propaganda precede or follow islamist terrorist attacks? *Economics & Sociology, 12*(1), 233-247. doi:10.14254/2071-789X.2019/12-1/13

Ernst, J., Schmitt, J. B., Rieger, D., Beier, A. K., Vorderer, P., Bente, G., & Roth, H. J. (2017). Hate beneath the counter speech? A qualitative content analysis of user comments on YouTube related to counter speech videos. *Journal for Deradicalization, 10*, 1-49.

Fisher, A., & Prucha, N. (2014). The call-up: The roots of a resilient and persistent jihadist presence on Twitter. *Combating Terrorism Exchange, 4*(3), 73-88.

Ferguson, C. J. (2002). Media violence: Miscast causality. *American Psychologist, 57*(6-7), 446-447.

Ferguson, C. J., & Kilburn, J. (2010). Much ado about nothing: The misestimation and overinterpretation of violent video game effects in Eastern and Western nations: Comment on Anderson et al. (2010). *Psychological Bulletin, 136*(2), 174-178.

Freedman, J. (2002). *Media violence and its effect on aggression: Assessing the scientific evidence*. Toronto: University of Toronto Press.

Frischlich, L., Rieger, D., Hein, M., & Bente, G. (2015). Dying the right-way? Interest in and perceived persuasiveness of parochial extremist propaganda increases after mortality salience. *Frontiers in Psychology: Evolutionary Psychology and Neuroscience, 6*(1222), 1-11.

Frischlich, L., Rieger, D., Schmitt, J. B., Morten, A., Schötz, R., Rutkowski, O., & Bente, G. (2017, May). *A story for and not against: Effects and limitations of narrativity in propaganda videos and counter-narratives*. Paper presented at the Annual Conference of the International Communication Association (ICA). San Diego, USA.

Frissen, T., Toguslu, E., Van Ostaeyen, P., & d'Haenens, L. (2018). Capitalizing on the Koran to fuel online violent radicalization: A taxonomy of Koranic references in ISIS's Dabiq. *Telematics & Informatics*, *35*(2), 491–503.

Gartenstein-Ross, D., & Grossman, L. (2009). *Homegrown terrorists in the US and UK: An empirical examination of the radicalization process.* Washington DC: FDD Press.

Geeraerts, S. B. (2012). Digital radicalization of youth. *Social Cosmos, 3*(1), 25-32.

Gendron, A. (2016). The call to jihad: Charismatic preachers and the Internet. *Studies in Conflict & Terrorism*, 40(1), 44-61.

Gerstenfeld, P. B., Grant, D. R., & Chiang, C. P. (2003). Hate online: A content analysis of extremist Internet sites. *Analyses of Social Issues and Public Policy, 3*(1), 29-44.

Gideon, L. (2012). *Handbook of survey methodology for the social sciences*. New York: Springer.

Gill, P., Corner, E., Conway, M., Thornton, A., Bloom, M., & Horgan, J. (2017). Terrorist use of the Internet by the numbers: Quantifying behaviors, patterns, and processes. *Criminology & Public Policy* 16(1).

Gill, P., Corner, E., McKee, A., Hitchen, P., & Betley, P. (2019). What do closed source data tell us about lone actor terrorist behavior? A research note. *Terrorism and Political Violence*, 1-18.

Glaser, S., & Schneider, C. (2012), Zielgruppe Jugend: Rechtsextreme Im Social Web [Target youth: Right-wing extremists in the social web]. *Aus Politik und Zeitgeschichte, 62*(18-19), 39–46.

Greenberg, K. J. (2016). Counter-radicalization via the internet. *The ANNALS of the American Academy of Political and Social Science, 668*(1), 165-179.

Greitemeyer, T., & Mügge, D. O. (2014). Video games do affect social outcomes: A meta-analytic review of the effects of violent and prosocial video game play. *Personality and Social Psychology Bulletin, 40*(5), 578-589.

Gresser, S. M. (2018). Abu Musab al-Suri goes online: Conditions for the success of jihadist online strategies. *Georgetown Security Studies Review, 6*(2), 66-74.

Griffiths, M. D., Davies, M. N., & Chappell, D. (2004). Online computer gaming: A comparison of adolescent and adult gamers. *Journal of Adolescence, 27*(1), 87-96.

Hafez, M., & Mullins, C. (2015). The radicalization puzzle: A theoretical synthesis of empirical approaches to homegrown extremism. *Studies in Conflict and Terrorism, 38*(11), 958-975.

Halverson, J. R., & Way, A. K. (2012). The curious case of Colleen LaRose: Social margins, new media, and online radicalization. *Media, War and Conflict, 5*(2), 139-153.

Hoffmann, D., & McGee, L. (2003). Cultural and social aspects of smoking in adolescence: New strategies for a media non-smoking campaigns. *Mediaculture Online.* Retrieved September 12, 2018 from https://www.lmz-bw.de/fileadmin/user_upload/Medienbildung_MCO/fileadmin/bibliothek/hoffmann_mcgee_smoking_in_adolescence/hoffmann_mcgee_smoking.pdf

Hoffner, C. A., & Levine, K. J. (2005). Enjoyment of mediated fright and violence: A meta-analysis. *Media Psychology, 7*(2), 207-237.

Holt, T. J., Freilich, J. D., Chermak, S. M., & LaFree, G. (2018). Examining the utility of social control and social learning in the radicalization of violent and non-violent extremists. *Dynamics of Asymmetric Conflict*, *11*(3), 125–148.

Holt, T., Freilich, J. D., Chermak, S. M., & McCauley, C. (2015) Political radicalization on the Internet: Extremist content, government control, and the power of victim and jihad videos, *Dynamics of Asymmetric Conflict, 8*(2), 107-120.

Holt, T. J., Freilich, J. D., Chermak, S. M., Mills, C., & Silva, J. (2019). Loners, colleagues, or peers? Assessing the social organization of radicalization. *American Journal of Criminal Justice, 44*(1), 83-105.

Huey, L., (2015). This is not your mother's terrorism: Social media, online radicalization and the practice of political jamming. *Contemporary Voices: St Andrews Journal of International Relations*, 6(2).

Howard, T., Poston, B., & Benning, S. D. The neurocognitive process of digital radicalization: A theoretical model and analytical framework. *Journal for Deradicalization, 19*, 122-148.

Hutchinson, E. (2014). Researching forums in online ethnography: Practice and ethics. In M. Hand & S. Hillyard (Eds.), *Big data? Qualitative approaches to digital research studies in qualitative methodology* (*Studies in Qualitative Methodology,* Vol. 13), (pp. 91-112). Bingley, England: Emerald Group Publishing Limited.

Jähnke, B., Laufhütte, H. W., & Odersky, W. (2006). *Strafgesetzbuch. Leipziger Kommentar / §§ 146-222.* Berlin: de Gruyter.

Jenness, V., & Grattet, R. (2002). Die amerikanische Bewegung gegen Hate-Crimes - Rechtssoziologische Überlegungen zu Entstehungszusammenhängen und Entwicklungsgeschichte [The American movement against hate crimes: Legal-sociological considerations on forms of origin and development]. In K. Boehnke, D. Fuß, & J. Hagan, (Eds.), *Jugendgewalt und Rechtsextremismus – Soziologische und psychologische Analysen in internationaler Perspektive* (pp. 49-78)*.* Weinheim, Germany: Juventa.

Keller, A. (2011). *Der Dschihadismus als transnationale soziale Bewegung [Jihadism as a transnational social movement].* Working Papers in Social and Cultural Anthropology (Volume 1). Munich: LMU.

Kiesler, S., Siegel, J., & McGuire, T. W. (1984). Social psychological aspects of computer-mediated communication. *American Psychologist, 39*(10), 1123-1134.

King, M., & Taylor, D. M. (2011). The radicalization of homegrown jihadists: A review of theoretical models and social psychological evidence*. Terrorism and Political Violence*, *23*(4), 602-622.

Klein, A. (2012). Slipping racism into the mainstream: A theory of information laundering. *Communication Theory, 22*(4), 427-448.

Koehler, D. (2014). The radical online: Individual radicalization processes and the role of the Internet. *Journal for Deradicalization, 1*, 116-134.

Koehler, D. (2015). De-radicalization and disengagement programs as counter-terrorism and prevention tools: Insights from field-experiences regarding German right-wing extremism and jihadism. In M. Lombardi, E. Ragab, & V. Chin (Eds.), *Countering Radicalisation and Violent Extremism Among Youth to Prevent Terrorism* (pp. 120-150). Amsterdam: IOS Press.

Kozinets, R. (2015). *Netnography: Redefined* (2nd ed.). London: Sage.

Krcmar, M., & Kean, L. G. (2005). Uses and gratifications of media violence: Personality correlates of viewing and liking violent genres. *Media Psychology, 7*(4), 399-420.

Kruglanski, A. W., Bélanger, J. J., & Gunaratna, R. (2019). *The three pillars of radicalization: Needs, narratives, and networks*. New York: Oxford University Press.

Kruglanski, A. W., Fernandez, J. R., Factor, A. R., & Szumowska, E. (2019). Cognitive mechanisms in violent extremism. *Cognition*, *188*, 116-123.

Lee, B. J. (2019a). Informal countermessaging: The potential and perils of informal online countermessaging. *Studies in Conflict & Terrorism, 42*(1-2), 161-177.

Lee, B. J. (2019b). Countering violent extremism online: The experiences of informal counter messaging actors. *Policy & Internet.*

Lee, E., & Leets, L. (2002). Persuasive storytelling by hate groups online examining its effects on adolescents. *American Behavioral Scientist, 45*(6), 927-957.

Levin, B. (2002). Cyberhate: A legal and historical analysis of extremists' use of computer networks in America. *American Behavioral Scientist, 45*(6), 958-988.

Lasswell, H. D. (1948). The structure and function of communication in society. In L. Bryson (Ed.), *The communication of ideas* (pp. 37-51). New York: Harper.

Livingstone, S., Haddon, L., Görzig, A., & Olafsson, K. (2011). *EU Kids Online Final Report*. LSE Media and Communications.

Lea, M., Rogers, P., & Postmes, T. (2002). SIDE-VIEW: Evaluation of a system to develop team players and improve productivity in internet collaborative learning groups. *British Journal of Educational Technology, 33*(1), 54-64.

Lea, M., & Spears, R. (1991). Computer-mediated communication, de-individuation and group decision-making. *International Journal of Man Machine Studies, 34*, 283–301.

Lemmens, J. S., Bushman, B. J., & Konijn, E. A. (2006). The appeal of violent video games to lower educated aggressive adolescent boys from two countries. *CyberPsychology and Behavior, 9*(5), 638-641.

Lenz, C. & Nustad, P. (2015). Dembra: Ein norwegisches Projekt zur Vorbeugung gruppenbezogener Feindlichkeit durch Demokratie an Schulen [Dembra: A Norwegian project to prevent group-related hostility through democracy in schools]. In F. Decker, B. Henningsen, & K. Jakobsen (Eds.), *Rechtspopulismus und Rechtsextremismus in Europa* [Right-wing populism and right-wing extremism in Europe], (pp. 379-396). Glashütte, Germany: NOMOS.

Markham, A. N., & Buchanan, E. (2015). Ethical considerations in digital research contexts. In J. Wright (Ed.), *International encyclopedia of the social and behavioral sciences* (pp. 606-613). Amsterdam: Elsevier.

Mares, M. L., Oliver, M. B., & Cantor, J. (2008). Age differences in adults' emotional motivations for exposure to films. *Media Psychology, 11*(4), 488-511.

McDonwell-Smith, A., Speckhard, A., & Yayla, A. S. (2017). Beating ISIS in the digital space: Focus testing ISIS defector counter-narrative videos with American college students. *Journal for Deradicalization, 10*, 50-76.

Meleagrou-Hitchens, A. (2017). The challenges and limitations of online counter-narratives in the fight against ISIS recruitment in Europe and North America. *Georgetown Journal of International Affairs 18*(3), 95-104.

Meleagrou-Hitchens, A., Alexander, A., & Kaderbhai, N. (2017). The impact of digital communications technology on radicalization and recruitment. *International Affairs, 93*(5), 1233-1249.

Mitts, T. (2019). From isolation to radicalization: Anti-muslim hostility and support for ISIS in the west. *The American Political Science Review, 113*(1), 173-194.

Mott, G. (2019). A storm on the horizon? "Twister" and the implications of the blockchain and peer-to-peer social networks for online violent extremism. *Studies in Conflict & Terrorism, 42*(1-2), 206-227.

Myagkov, M., Shchekotin, E. V., Chudinov, S. I., & Goiko, V. L. (2019). A comparative analysis of right-wing radical and Islamist communities' strategies for survival in social

networks (evidence from the Russian social network VKontakte). *Media, War & Conflict*, *online first*. https://doi.org/10.1177/1750635219846028

Neumann, P. R. (2013). Options and strategies for countering online radicalization in the United States. *Studies in Conflict and Terrorism, 36*(6), 431-459.

Odağ, Ö., Uluğ, Ö. M., & Solak, N. (2016). "Everyday I'm çapuling": Identity and collective action through social network sites in the Gezi Park protests in Turkey. *Journal of Media Psychology: Theories, Methods, and Applications*, *28*(3), 148-159.

Pantucci, R. (2011). *A typology of lone wolves: Preliminary analysis of lone Islamist terrorists*. London: International Centre for the Study of Radicalisation and Political Violence.

Payne, K. (2009). Winning the battle of ideas: Propaganda, ideology, and terror. *Studies in Conflict and Terrorism, 32*(2), 109-128.

Pearson, E. (2015). The case of Roshonara Choudhry: Implications for theory on online radicalization, ISIS women, and the gendered jihad. *Policy and Internet, 8*(1), 5-33.

Piazza, J. A. & Guler, A. (2019). The online caliphate: Internet usage and ISIS support in the Arab world. *Terrorism and Political Violence, online first*. doi: 10.1080/09546553.2019.1606801

Picart, C. (2015). "Jihad Cool/Jihad Chic": The roles of the Internet and imagined relations in the self-radicalization of Colleen LaRose (Jihad Jane). *Societies*, 5(2), 354-383.

Post, J. M., McGinnis, C., & Moody, K. (2014). The changing face of terrorism in the 21st century: The communications revolution and the virtual community of hatred. *Behavioral Sciences and the Law, 32*(3)*, 306-334.

Postmes, T., Spears, R., & Lea, M. (1998). Breaching or building social boundaries? SIDE-effects of computer-mediated communication. *Communication Research, 25*(6), 689-715.

Quayle, E., & Taylor, M. (2011). Social networking as a nexus for engagement and exploitation of young people. *Information Security Technical Report, 16*(2), 44-50.

Rafael, S. (2011). Neonazis in Sozialen Netzwerken [Neo-Nazis in social networks]. *Medien und Erziehung, 5*, 18–25.

Ramsay, G. (2009). Relocating the Virtual War. *Terrorism*, *31*(10), 883-902.

Ravndal, J. A. (2013). Anders Behring Breivik's use of the Internet and social media. Journal Exit-Deutschland. *Zeitschrift für Deradikalisierung und demokratische Kultur, 2*, 172-185.

Reeve, Z. (2019). Engaging with online extremist material: Experimental evidence. *Terrorism and Political Violence, online first*. doi: 10.1080/09546553.2019.1634559

Richards, I. (2019). A philosophical and historical analysis of "Generation Identity": Fascism, online media, and the European new right. *Terrorism and Political Violence, online first.* doi: 10.1080/09546553.2019.1662403

Rieger, D., Frischlich, L., & Bente, G. (2013). *Propaganda 2.0: Psychological effects of right-wing and Islamic extremist Internet videos.* German Federal Criminal Police Office Institute of Law Enforcement Studies and Training (Ed.). Cologne, Germany: Wolters Kluwer.

Rieger, D., Frischlich, L., & Bente, G. (2017). Propaganda in an insecure, unstructured world: How psychological uncertainty and authoritarian attitudes shape the evaluation of right-wing extremist Internet propaganda. *Journal for Deradicalization*, *10*, 203-229.

Rieger, D., Frischlich, L., & Bente, G. (2019). Dealing with the dark side: The effects of right-wing extremist and Islamist extremist propaganda from a social identity perspective. *Media, War & Conflict, online first.*. https://doi.org/10.1177/1750635219829165

Rorive, I. (2002). Strategies to tackle racism and xenophobia on the Internet: Where are we in Europe? *International Journal of Communications Law and Policy*, *7*, 1-10.

Rosaen, S. F., Boyson, A. R., & Smith, S. L. (2006). Aggression-related characteristics and the selection of media violence. *Zeitschrift für Medienpsychologie, 18*(3), 119-130.

Rudner, M. (2016). "Electronic Jihad": The Internet as Al Qaeda's catalyst for global terror. *Studies in Conflict and Terrorism*, *40*(1), 10-23.

Ryan, J. (2010). The Internet, the perpetual beta, and the ttate: The long view of the new medium. *Studies in Conflict and Terrorism, 33*(8), 673-681.

Sabouni, S., Cullen, A., & Armitage, L. (2017, June). A preliminary radicalisation framework based on social engineering techniques. *International Conference On Cyber Situational Awareness, Data Analytics And Assessment (Cyber SA)* (pp. 1-5). IEEE.

Scrivens, R., Davies, G., & Frank, R. (2018). Measuring the evolution of radical right-wing posting behaviors online. *Deviant Behavior*, *online first*. doi: 10.1080/01639625.2018.1556994

Shafer, J. A. (2002). Spinning the web of hate: Web-based propagation by extremist organizations. *Journal of Criminal Justice and Popular Culture, 9*(2), 69-88.

Shane, S., Apuzzo, M., & Schmitt, E. (2015). Americans attracted to ISIS find an 'Echo Chamber' on social media. *New York Times.* Retrieved December 16, 2019 from https://www.nytimes.com/2015/12/09/us/americans-attracted-to-isis-find-an-echo-chamber-on-social-media.html

Schils, N., & Verhage, A. (2017). Understanding how and why young people enter radical or violent extremist groups. *International Journal of Conflict and Violence, 11(2)*, 1-17.

Siapera, E. (2019). Organised and ambient digital racism: multidirectional flows in the Irish digital sphere. *Open Library of Humanities*, *5*(1), 1-34.

Slater, M. D., Henry, K. L., Swaim, R. C., & Anderson, L. L. (2003). Violent media content and aggressiveness in adolescents: A downward spiral model. *Communication Research, 30*(6), 713-736.

Spears, R., & Postmes, T. (2015). Group identity, social influence, and collective action online. In S.S. Sundar (Ed.), *The Handbook of the Psychology of Communication Technology* (pp. 23-46). West Sussex: John Wiley and Sons.

Sun, Y., Ya-li, Z., Peng, X., & Boehnke, K. (2011, May). *Understanding users' continuance intention in online social networks.* Paper presented at the E-Business and E-Government International Conference (ICEE), Shanghai, PRC.

Tajfel, H. (Ed.). (1978). *Differentiation between social groups: Studies in the social psychology of intergroup relations.* London: Academic Press.

Timofeeva, Y. A. (2002). Hate Speech Online: Restricted or protected? Comparison of regulations in the United States and Germany. *J. Transnat'l L. & Pol'y, 12*, 253.

Torok, R. (2013). Developing an explanatory model for the process of online radicalisation and terrorism. *Security Informatics*, *2*(1), 1-10.

Tsfati, Y., & Weimann, G. (2002). www.terrorism.com: Terror on the Internet. *Studies in Conflict and Terrorism, 25*(5), 317-332.

Ungerleider, N. (2011). Examining Oslo terrorist Breivik's Internet trail. *Fast Company.* Retrieved December 16, 2019 from https://www.fastcompany.com/1768974/examining-oslo-terrorist-breiviks-internet-trail

Vandewater, E. A., Lee, J. H., & Shim, M. (2005). Family conflict and violent electronic media use in school-aged children. *Media Psychology, 7*(1), 73-86.

Venhaus, J. (2010). 'Why youth join Al-Qaeda.' Report of the U.S. Institute of Peace. Retrieved December 16, 2019 from www.usip.org.

Vidino, L., & Hughes, S. (2015). "ISIS in America: From retweets to Raqqa." George Washington University: Program on Extremism. Retrieved December 16, 2019 from https://extremism.gwu.edu/

Watkin, A. L., & Looney, S. (2019). "The lions of tomorrow": A news value analysis of child images in jihadi magazines. *Studies in Conflict & Terrorism, 42*(1-2), 120-140.

Weimann, G. (2014a). *New terrorism and new media*. Washington DC: Wilson Center Common Labs.

Weimann, G. (2014b). *Virtual packs of lone wolves: How the Internet made 'lone wolf' terrorism a misnomer.* Washington, DC: Woodrow Wilson Center Report.

Windsor, L. (2018) The language of radicalization: Female Internet recruitment to participation in ISIS activities. *Terrorism and Political Violence, online first.* doi: 10.1080/09546553.2017.1385457

Yardi, S., & boyd, D. (2010). Dynamic debates: An analysis of group polarization over time on twitter. *Bulletin of Science, Technology and Society, 30*(5), 316-327.

About the JD Journal for Deradicalization

The JD Journal for Deradicalization is the world's only peer reviewed periodical for the theory and practice of deradicalization with a wide international audience. Named an "essential journal of our times" (Cheryl LaGuardia, Harvard University) the JD's editorial board of expert advisors includes some of the most renowned scholars in the field of deradicalization studies, such as Prof. Dr. John G. Horgan (Georgia State University); Prof. Dr. Tore Bjørgo (Norwegian Police University College); Prof. Dr. Mark Dechesne (Leiden University); Prof. Dr. Cynthia Miller-Idriss (American University Washington); Prof. Dr. Julie Chernov Hwang (Goucher College); Prof. Dr. Marco Lombardi, (Università Cattolica del Sacro Cuore Milano); Dr. Paul Jackson (University of Northampton); Professor Michael Freeden, (University of Nottingham); Professor Hamed El-Sa'id (Manchester Metropolitan University); Prof. Sadeq Rahimi (University of Saskatchewan, Harvard Medical School), Dr. Omar Ashour (University of Exeter), Prof. Neil Ferguson (Liverpool Hope University), Prof. Sarah Marsden (Lancaster University), Dr. Kurt Braddock (Pennsylvania State University), Dr. Michael J. Williams (Georgia State University), and Dr. Aaron Y. Zelin (Washington Institute for Near East Policy), Prof. Dr. Adrian Cherney (University of Queensland).

For more information please see: www.journal-derad.com

Twitter: @JD_JournalDerad
Facebook: www.facebook.com/deradicalisation

The JD Journal for Deradicalization is a proud member of the Directory of Open Access Journals (DOAJ).

ISSN: 2363-9849

Editor in Chief: Daniel Koehler