How Social Media Algorithms Potentially Reinforce Radical Views

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Abstract

This research delves into the complexities of social media's role as a platform for communication, examining how it facilitates the spread of radical ideologies while simultaneously serving as a space for deradicalization. Through a comprehensive literature review, the researchers aim to combine existing findings with fresh insights employong qualitative analyses. Central to the study is the application of the Uses and Gratifications Theory (UGT), which posits that users actively select content based on specific needs and desires. By applying UGT, the research seeks to uncover the underlying motivations driving users to engage with extremist content on social media, offering a nuanced perspective on the platform's societal influence and potential implications for policy and platform modifications. The study employing *comprehensive literature review* methodology, the research collects and analyzes a wide range of scholarly articles, reports, and relevant sources to provide a comprehensive overview of how social media contributes to the disemination of radical views. Based on the findings, Social media platforms, through their algorithm-driven content curation and interactive community structures, create environments where radical ideologies are normalized and amplified within echo chambers, subtly increasing the likelihood of real-world radicalization. Media consumers, guided by the Uses and Gratifications Theory (UGT), actively shape their content experiences on platforms like X, Facebook, and Youtube. However, the platforms' designs and algorithms can inadvertently drive radicalization. Countermeasures, informed by understanding users' motivations via UGT, are crucial to mitigate this, but they must be regularly evaluated for effectiveness.

Keywords: dissemination, radical views, social media, UGT

Abstrak

Penelitian ini mendalami kompleksitas peran media sosial sebagai platform komunikasi, dengan meneliti bagaimana media sosial memfasilitasi penyebaran ideologi radikal sekaligus berfungsi sebagai ruang untuk deradikalisasi. Melalui tinjauan literatur yang komprehensif, para peneliti bertujuan untuk menggabungkan temuan-temuan yang ada dengan wawasan baru, menggunakan analisis kualitatif. Inti dari studi ini adalah penerapan Teori Penggunaan dan Kepuasan (Uses and Gratifications Theory/UGT), yang menyatakan bahwa pengguna secara aktif memilih konten berdasarkan kebutuhan dan keinginan spesifik. Dengan menerapkan UGT, penelitian ini bertujuan untuk mengungkap motivasi mendasar yang mendorong pengguna untuk terlibat dengan konten ekstremis di media sosial, menawarkan perspektif yang lebih mendalam tentang pengaruh sosial platform tersebut dan potensi implikasi bagi kebijakan dan modifikasi platform. Penelitian ini menggunakan metodologi tinjauan literatur yang komprehensif, penelitian ini mengumpulkan dan

menganalisis berbagai artikel ilmiah, laporan, dan sumber terkait untuk memberikan gambaran menyeluruh tentang bagaimana media sosial berkontribusi pada penyebaran pandangan radikal. Berdasarkan temuan, platform media sosial, melalui kurasi konten yang didorong oleh algoritma dan struktur komunitas yang interaktif, menciptakan lingkungan di mana ideologi radikal dinormalisasi dan diperkuat dalam ruang gema, secara halus meningkatkan kemungkinan radikalisasi di dunia nyata. Konsumen media, dipandu oleh Teori Penggunaan dan Kepuasan (UGT), secara aktif membentuk pengalaman konten mereka di platform seperti X, Facebook, dan YouTube. Namun, desain dan algoritma platform ini secara tidak sengaja dapat mendorong radikalisasi. Tindakan pencegahan, yang diinformasikan oleh pemahaman motivasi pengguna melalui UGT, sangat penting untuk mengurangi hal ini, namun harus secara berkala dievaluasi efektivitasnya.

Kata Kunci: *diseminasi, pandangan radikal, sosial media, UGT*

INTRODUCTION

In recent years, social media platforms have become influential spaces for the exchange of ideas and opinions, shaping public discourse on various topics. Among these platforms, platforms such as X, Facebook, and Youtube has gained significant prominence due to its real-time nature and wide user base. Research shows that social media serve as a platform where radicalization occurs, with extremist views and ideologies being disseminated among users (Fernandez et al., 2018; Frissen, 2021; Kouba, 2022; Paton et al., 2022). However, it is important to note that social media is not only a site for radicalization but also a space where deradicalization efforts take place(Ajala et al., 2022; Baharuddin et al., 2021; Hernawati, 2019; Mitts, 2017, 2022; Saidi et al., 2022; Warrington, 2017; Watkin & Conway, 2022).

Studies have consistently explored social media's functionalities, from its value in daily communication, entertainment and hospitality industry, local government, even as far as its indispensable role in emergencies (Kim & Chae, 2018; Martínez-Rojas et al., 2018; Stone & Can, 2021; K. Wang et al., 2021, 2023; Y. Wang, 2016). Further, research has underscored the importance of content authenticity and credibility, with scholars probing into the dynamics of spam detection and the credibility of posts in various sector and events; among others: disasters, political event, and even in regard to the profiles displayed by users (Al-Khalifa & Al-Eidan, 2011; Bazzaz Abkenar et al., 2023; Hwang, 2013; Li et al., 2023; Sato et al., 2019; Son et al., 2020; Yang et al., 2019). Yet, there exists a critical lacuna in understanding the platforms' influences in the spread of radical views.

While the literature sheds light on many facets of social media's communication dynamics, there is a conspicuous absence of detailed exploration on its role in the amplification of extremist ideologies. This gap warrants attention given the societal repercussions of such a spread.

This research endeavours to comprehensively understand the extent to which social media accentuate extremist ideologies. Central to our investigation is the research question: "How does social media's algorithmic design contribute to the potential reinforcement of radical views, and what factors influence this process?"

Here, "radical views" are generally defined as ideologies that advocate for significant, often abrupt changes to societal structures, and can include extremist ideologies that support or

justify the use of violence to achieve political, ideological, or religious goals. These views often challenge or seek to drastically alter current norms and may oppose mainstream policies, social mores, and values(Abbas, 2017; Hafez & Mullins, 2015; Jensen et al., 2020; McCauley & Moskalenko, 2008; Niemi et al., 2018).

Through a comprehensive literature review, we aim to collate and analyze existing research. Our approach ensures a balanced evaluation of both the platform's functionalities and its societal impacts. Addressing this research gap is not merely an academic endeavor but holds immense practical implications. Understanding social media's roles in the spread of radical beliefs can guide policy frameworks and platform modifications to ensure a secure digital environment.

Our initial approach involves a comprehensive literature review. Through this method, we will collate and categorize key themes that highlight the various roles and dynamics of social media, particularly in its function as a tool for the propagation of radical ideologies. This detailed examination will lay the foundational framework for our subsequent investigations.

Upon establishing the groundwork through the literature review, we will employ the Uses and Gratifications Theory (UGT) to scrutinize the primary driving factors behind users' engagement with radical content on social media. UGT posits that individuals actively choose media based on the specific gratifications they seek, rather than being mere passive recipients of content(Katz et al., 1973). In the context of digital platforms like X, Facebook, and Youtube, UGT emphasizes users' active roles, suggesting they interact with content based on diverse motivations, from information-seeking to social engagement. Especially relevant in our digital age, contemporary UGT highlights concepts such as interactivity, demassification, hypertextuality, and asynchroneity, which shed light on user behaviors and the unique dynamics of computer-mediated communication. Applying UGT to our study aids in comprehending the motivations driving users' interactions with radical content on social media.

Uses and Gratification Theory (UGT)

This research relies on the Uses and Gratification Theory (UGT). Rooted in the exploration of motivations and needs underlying media consumption, UGT postulates that audiences are not merely passive absorbers of media content. Instead, they are active agents, strategically selecting media sources that best cater to their individual needs and desires(Katz et al., 1973).

UGT fundamentally departs from conventional media effects research, which generally presumes a consistent, uniform impact of media on all its consumers. In contrast, UGT champions the agency of the audience, proposing that individuals actively choose media sources based on the gratifications they seek. This can range from the desire for information and entertainment to needs for social interaction and personal identity reinforcement.

This research employs a modified UGT tailored for Computer-Mediated Communication (CMC). While traditional UGT focuses on how audiences actively select media to fulfill their diverse needs and desires, the CMC-adapted UGT considers the unique dynamics and interactive nature of digital environments. In this context, the theory

acknowledges that users not only seek information, entertainment, social interaction, and personal identity reinforcement but also navigate the complexities of online communication, such as anonymity, immediacy, and user-generated content. This adaptation highlights the evolving role of media consumers in the digital age, where their engagement with media is influenced by the distinctive characteristics of online platforms.

UGT adapted for CMC offers a valuable perspective for understanding how radical groups optimize social media content to attract and engage users. These groups leverage social media algorithms to personalize and curate content that resonates with users' existing beliefs, meeting their informational needs and reinforcing their social identity. This strategy creates echo chambers that constantly validate and amplify radical views. The interactive features of social media further enhance this by allowing users to actively engage with and spread radical content, fulfilling their need for social interaction and community. Additionally, radical groups exploit social media's demassification to form niche communities where their views can thrive, while the hypertextual nature of online content facilitates the rapid, non-linear dissemination of their messages. The asynchronous nature of social media also enables users to access and share radical content at their convenience. By applying UGT to CMC, researchers can uncover the motivations and tactics that radical groups use to effectively harness social media for the dissemination of their views.

UGT in the Context of Computer-Mediated Communication (CMC)

With the advent of computer-mediated communication (CMC), the relevance of UGT has been accentuated. CMC, including but not limited to the Internet, has expanded the avenues through which individuals seek and obtain gratifications (Ruggiero, 2000). This digital realm offers an array of platforms, such as social media, online discussion forums, and video-sharing sites. Each platform presents unique opportunities for individuals to gratify their needs, from interpersonal communication and social identity affirmation to seeking companionship, entertainment, escape, and surveillance.

When examining social media platforms with dynamic user interactions and multifaceted content, the contemporary UGT emerges as an apt analytical tool (Ruggiero, 2000). Contemporary UGT, tailored to the digital age, offers a nuanced framework that acknowledges the active agency of X users, capturing their diverse motivations ranging from information-seeking to social networking. Given social media's continuous evolutions and their unique positions in the digital ecosystem, employing the contemporary UGT allows for a comprehensive understanding of user behavior and the platform's broader significance in the realm of computer-mediated communication.

This contemporary framework has several key concepts (Ruggiero, 2000): (1) **interactivity:** Unlike traditional media where audiences are largely passive recipients, CMC empowers users with the capacity for interaction, enabling them to be active participants in the communication process; (2) **demassification:** The digital age has led to the splintering of monolithic audience groups into more niche, specialized

clusters, challenging the notion of a 'mass audience'; (3) **hypertextuality:** The structure of online content is inherently non-linear. Users can meander through interconnected links, leading to a multi-faceted, non-sequential consumption pattern; (4) **asynchroneity:** The asynchronous nature of many digital communication modes allows users to engage in conversations without the constraints of real-time interaction, thereby enhancing flexibility in communication.

UGT offers a valuable perspective to probe the extent of social media's role in disseminating radical views. By utilizing UGT, the research can discern the underlying motivations driving users to spread or consume such views on the platform. Are they seeking information, establishing a social identity, or engaging for entertainment? Understanding these drivers can illuminate the allure of radical content and the susceptibility of certain users. Additionally, the elements of interactivity, demassification, hypertextuality, and asynchroneity intrinsic to UGT can be used to decode X's platform dynamics, from real-time engagements that may amplify radical voices to niche communities where these views could thrive.

RESEARCH METHODS

This study employed a comprehensive literature review methodology to analyze the impacts of social media on the radicalization processes and terrorist recruitment strategies. Given the complexity and the broad scope of the digital influences on radical behaviors, a literature review provided a structured way to consolidate existing theories and findings across various disciplines including communication studies, psychology, political science, and cyber-security. This method enabled an in-depth examination of how social media

platforms act as catalysts for radicalization and recruitment by radical groups.

The primary data for this review were sourced from peer-reviewed journal articles, books, and conference proceedings that focus on radicalization, social media influence, terrorism, and cyber-psychology. Databases such as JSTOR, PubMed, Scopus, and Web of Science were utilized to gather relevant literature. Keywords used in the search included "social media radicalization," "terrorist recruitment online," "digital platforms and extremism," "cyber radicalization," and "online propaganda."

The inclusion criteria were: articles published in English from January 2000 to December 2022 to capture the rise and evolution of social media platforms; studies that specifically discussed the role of social media in the radicalization process, recruitment tactics by terrorist organizations, and the operational use of digital platforms for spreading radical ideologies; and works that included case studies or empirical data on the interaction between social media and radical activities.

Exclusion criteria were: articles not peer-reviewed, such as opinion pieces or editorial content; studies focusing solely on offline radicalization processes without any reference to digital influences; literature that did not directly address the impact of social media platforms like Facebook, X, YouTube, and Instagram on radical behavior; reports produced by governments, NGOs, and other organizations that are not peer-reviewed, even if relevant to the topic.

Each selected article was thoroughly read, and key information was extracted including the author(s), year of publication, research focus,

methodology, key findings, and the theoretical frameworks utilized. This data was then synthesized to form a narrative that illustrates the current understanding of social media's role in radicalization and terrorism. This synthesis involved identifying common themes, contrasting different viewpoints, and highlighting methodological approaches across the studies.

UGT will play a pivotal role in the interpretative phase of our literature review. After assimilating the collective findings and discerning dominant themes, we will use UGT as a lens to analyze and understand the qualitative results. This theoretical framework will assist in elucidating the underlying motivations and behaviors of X users engaging with radical content. For instance, if a recurrent theme in the literature points to X users seeking a specific type of content for identity affirmation, UGT can help us contextualize such behavior and its broader implications for radicalization. It is important to note that this statement does not suggest X supports radical content but merely explains that some users do use X to engage with radical content, and the X algorithm, which was not designed to support radical content, can at times lead users to more radical content as it suggests material based on previous activities.

RESULTS
Social Media as a Recruitment Tool

The digital revolution, marked by the pervasive influence of social media, has transformed the ways in which information is disseminated and consumed. With this transformation, there is abundant literature illustrating the profound implications of social media platforms, particularly as potent tools for recruitment and propaganda by radical groups. The literatures unveiled that radical movements strategically target impressionable youths on social media platforms, which have shown amplified efficiency for radicalization, especially during the pandemic, acting as breeding grounds for the rapid spread and legitimization of radical ideologies.

Archetti (2015) and Putri (2018) posits that the internet in general, and Social media especially, play a significant role in radicalization by providing a platform for ISIS and Al Qaeda to disseminate propaganda, recruit new members, and amplify their messages to a global audience. The interactive nature of social media allows for the rapid spread of radical ideologies, enabling individuals to connect with like-minded individuals, form echo chambers, and reinforce extremist beliefs. For instance, ISIS has been known to deploy X bots that amplify their propaganda by repeatedly posting content with popular hashtags, making their messaging appear more widespread and popular than it might actually be. This approach helps to normalize their narratives and reach a potentially vulnerable audience on a global scale(Bonzio, 2013). Moreover, the algorithms and recommendation systems on social media platforms can create filter bubbles, where users are exposed to content that aligns with their existing views, potentially leading to further radicalization. The viral nature of content sharing on social media can also contribute to the normalization of extremist narratives and behaviors, making it easier for radical ideas to gain traction and influence vulnerable individuals susceptible to radicalization.

Furthermore, Putri (2018) and Putri et al (2022), reveals that social media is also used to disseminate practical knowledge, including bomb-making, which can aid in the radicalization process and the operational capabilities of terrorist group members. There are cases of jihadi fighters in Indonesia who learned about bomb-making techniques through Youtube and X, such as in Jamaah Ansharut Daulah (JAD) and ISIS affiliated female bomber popularly known as the "pan bomber." (Putri, 2018; Putri et al., 2022) This shows that there is a significant role of social media and the internet in the radicalization processes and operational strategies of terrorist groups. These digital platforms facilitate not just the spread of radical ideologies but also practical knowledge like bomb-making techniques. Social media allows for the rapid and broad dissemination of radical content, reaching individuals globally without geographic constraints, making it an effective tool for recruitment and radicalization.

Hollewell et al.(2022)postulate that terrorist organizations strategically target vulnerable populations, such as young individuals, by tailoring their propaganda to provoke emotional responses. Hallowell gives example in the form of Manchester Arena bombing and the London Bridge attack, where young, self-radicalized individuals used online platforms to foster radical views and plan attacks. This approach is designed to exploit the vulnerabilities and emotional susceptibilities of these groups, making them more receptive to radical ideologies. In similar vein, Eerten et al. (2017) show thatSalafi-Jihadi groups have strategically utilized social media platforms such as X and Facebook to

engage and influence youth. They tailor their narratives to resonate emotionally, often highlighting grievances against the West and promoting an alternative vision of society under their rule. Radical groups tend to manipulate emotional scaffolding to deepen recruits' emotional engagement and loyalty. This involves creating environments that generate strong emotional reactions, both positive and negative, which can foster a deep sense of belonging and purpose among members(Bélanger et al., 2020).Radical groups like ISIS have adeptly utilized social media platforms such as YouTube, X, and Facebook to recruit and communicate, employing strategies from sophisticated video production to interactive engagement and gradual indoctrination through community groups.The excessive time spent on social media platforms further exacerbates this susceptibility, as prolonged exposure to such content can make individuals more prone to adopting radical views.

Lee & Leets(2002) explored the efficacy of persuasive storytelling found on White supremacist websites and its effects on adolescents. Their study included 108 adolescents who participated in a longitudinal study designed to evaluate the impact of narrative and message explicitness in online content. They found that high-narrative and implicit messages were initially more persuasive to the participants compared to low-narrative and explicit messages. However, this effect diminished over time, whereas the impact of low-narrative and explicit messages either remained stable or slightly increased. This suggests that the narrative structure and the subtlety of the message significantly influence how adolescents perceive and are persuaded by online

content. Lee and Leets conclude that receptivity to these messages, influenced by narrative techniques, mediates the persuasive impact on young viewers, reflecting broader concerns about the vulnerability of youth to online radicalization strategies.

Recruitment and propaganda efforts by groups like ISIS have demonstrated the central role of social media platforms such as Facebook, X, YouTube, and Instagram to target thousands of young individuals worldwide, especially among students. Social media is effective for recruitment within these circles due to its wide reach and the ability to target specific audiences subtly and directly. Groups can exploit the algorithms of social media platforms to deliver tailored content that resonates with particular vulnerabilities or interests of potential recruits. These platforms allow the group to penetrate diverse demographic segments globally, including college students who are particularly active on these networks(Bell, 2021). Bell highlights ISIS's use of YouTube for distributing recruitment videos and propaganda, which includes professionally crafted videos that appeal to non-Arabic speakers and younger audiences with their high-quality production and cinematic techniques. Videos such as one titled No Respite," produced by Al-Hayat Media, an ISIS media wing,along with others like "The Flames of War" and "The Clanging of the Swords," exemplifies how ISIS uses social media platforms to broaden its reach and impact with a particular concern to younger audiences. Hollwell % Longpre (2022) further elaborates how the abundance of these high-quality content targeted at the youth encourage the process of self-

radicalization where individuals independently adopt radical ideologies without direct physical interactions with established terrorist groups.

Self-radicalizationischaracterized by personal grievances, identity crises, and the influence of online propaganda, which together can lead an individual to endorse and act upon extremist beliefs. The aforementioned Abedi in an example how someone can become radicalised by consuming such contents.

Opinion Formation and Ideological Amplification on Social Media

In the digital age, social media has emerged as an influential catalyst in the realm of public opinion and ideological formulation. Its expansive reach and real-time interaction capabilities offer both opportunities for global connection and the risk of rapid radicalization. As individuals worldwide become increasingly interconnected through these platforms, understanding the role of social media in shaping and amplifying radical ideologies becomes paramount.

The transformative power of social media in shaping opinions and amplifying radical ideologies is evident in contemporary literature. This is exemplified in the German context by Schumann et al. (2021), who found that Social media platforms, such as Facebook and X, serve as potent tools for amplifying the messages of radical movements, exemplified by the populist radical right parties like Germany's Alternative for Germany (AfD). These platforms facilitate the rapid and widespread dissemination of content, allowing these groups to directly engage large audiences without the mediation of traditional news media. The design of social media

algorithms, which prioritize content that generates user engagement, often promotes emotionally charged, radical posts that provoke strong reactions. This can increase the visibility of radical views, as these algorithms tend to favor content that keeps users active on the platform, often regardless of the content's veracity or the divisiveness of the message.

The power and efficiency of social media as a tool for radicalization are also emphasized in studies by Richey & Binz (2015) and Thompson (2011). These platforms, originally designed for building tremendous network for social interactions, have been co-opted for a more nefarious purpose. Thompson (2011) highlights the expansive reach and accessibility of social media, which make it an ideal platform for disseminating radical ideas. Social media's effectiveness is tied to its ability to connect large numbers of people quickly and facilitate the spread of information without traditional geographical or physical constraints. Such effectiveness have been utilized by Al Qaida through platforms such as Facebook, X, and PalTalk to manipulate grievances, radicalize youth, and encourage homegrown terrorism (Thompson, 2011).

This is exacerbated by the fact that social media is often very robust as a tool of communication, even in restrictive political system. Richey &Binz (2015) emphasizes thepowerful role of social media in disseminating information even under governmental censorship, highlightingusers' persistent engagement across platforms. In the case of Jamaah Ansharut Tauhid, for example despite restrictive environments, individuals continue to access and utilize social media, often bypassing censorship with technologies like VPNs, indicating a persistent access to these platforms. This engagement demonstrates social media's capability to rapidly spread information, where even minimal content can quickly reach extensive audiences before authorities can intervene. This scenario presents governance challenges, as traditional methods of information control are less effective in the digital age, underscoring the resilience of information flow in contemporary media landscapes.

Odağ et al. (2019)delves deeper into the internet's catalytic role in radicalization, specifically highlighting how digital platforms amplify radical doctrines. They underscore the notion of the echo chamber, where digital platformsnot only disseminate but also intensify radical ideologies among like-minded groups. This environment allows individuals to connect over shared extremist views without encountering dissenting opinions, thereby reinforcing a narrow worldview. Such digital echo chambers facilitate a feedback loop of radicalization, as seen in the cases of the Christchurch massacre and the attempted synagogue attack in Germany, where perpetrators were deeply influenced by online radical content through various platforms. In the Christchurch case, for instance, the shooter had interactions with white supremacist and extremist content on platforms such as 4chan, a notorious imageboard known for its far-right user base. He was also noted for posting Islamophobic rhetoric on far-right Facebook groups such as the Lads Society Season Two, United Patriots Front, and True Blue Crew. Furthermore, YouTube was specifically identified as a significant

source of information and inspiration for him. This dangerous cycle illustrates how the structural dynamics of social media—designed to engage users by promoting provocative content—can inadvertently foster and escalate extremist sentiments, leading to real-world violent outcomes.

Such phenomenon is particularly problematic during crises, such as the Covid-19 pandemic. Caiani et al., (2021)highlights how social media platforms, often exploited by radical right groups, become even more potent venues for spreading hate speech during these times. It examines the increased engagement with exclusionary and xenophobic rhetoric by these groups in Italy and the UK, facilitated by the structure of social media that enables rapid dissemination and amplification of messages. The study analyzed a large volume of tweets to uncover how these groups have leveraged the pandemic to blame minorities and migrants for the spread of the virus, intensifying societal

Another way social media is a tool for radicalisation lies in its ability to build connections. Platforms enable individuals to find like-minded peers, creating cohesive online communities that further radical ideologies. Wolfowicz et al., (2021) illustrate how behaviors are often acquired through observing and interacting with others in one's social network. For instance, the Facebook activities of Palestinian radicals. It showed that radicals were more likely to share content about prior attacks—a form of digital endorsement and network reinforcement of such acts. This kind of interaction not only spreads the radical message but also strengthens the community bonds within these groups, emphasizing the role of digital social networks in the radicalization process.

Such connections and networks do not only help in reinforcing idea and dicourse, but also in encouraging the translation of such ideas into practical action(Wahlström&Törnberg, 2021). This dynamic is particularly evident in the context of right-wing political violence, where social media platforms enable groups that are geographically dispersed to share tactical information, coordinate actions, and strengthen group identities. For instance, during the anti-immigrant mobilizations in Sweden in the 2010s, these networks played a crucial role in spreading anti-immigrant sentiments and orchestrating coordinated attacks against migrant communities. Through social media, members from different locations could rapidly share successful strategies and rally support, enhancing the movement's potency and coordination beyond what traditional communication methods would allow (Wahlström & Törnberg, 2021). This illustrates the profound impact of digital connectivity on the operational capabilities and influence of extremist movements in today's digital age.

Building on the understanding of how social media facilitates not only the spread of ideas but also the coordination of group activities across geographical boundaries, we turn to examine another crucial function of these platforms in right-wing movements. This next section delves into how social media acts as a mobilization tool, empowering these groups to convert online interactions into organized offline actions. It highlights the transition from online discourse to physical gatherings and activities, showcasing the practical applications of digital connectivity in orchestrating movements on the ground.

Mobilization and Group Solidarity in the Digital Sphere

The rise of social media platforms has not only transformed individual interactions but has also reshaped the dynamics of group mobilization and cohesion, especially among radical factions. The capacity of these platforms to reach vast audiences in real-time, combined with their algorithm-driven content dissemination, has rendered them indispensable tools for radical groups aiming to solidify their ranks and expand their influence.

Heft et al. (2022) investigates how radical right parties in Europe utilize social media to promote a common agenda and mobilize voters transnationally. It focuses on the Facebook campaign communications of these parties during the 2019 European Parliament elections in six countries: Austria, France, Germany, Italy, Poland, and Sweden. The study highlights the strategic use of platforms like Facebook to engage directly with voters, amplify core issues such as immigration and elite criticism, and disseminate campaign information. This direct engagement bypasses traditional media gatekeepers, allowing these parties to reinforce their messaging and rally their base effectively. Social media facilitates not only the unification of message across different national contexts but also enhances voter turnout by keeping supporters informed and engaged, demonstrating the critical role of digital platforms in modern political strategies.

The same findings is postulated by Hutchinson (2019) in the case of far-right extremist groups in Australia and Canada. Facebook substantially enhances the organizational strength of far-right extremist groups in Australia and Canada, providing them with tools to efficiently coordinate events and expand their global outreach. It plays a vital role in forging a collective identity by consistently circulating content that resonates with core beliefs such as nationalism and anti-immigration sentiments. This process helps strengthen a shared worldview among members, fostering group cohesion and encouraging active participation. Such dynamics are integral to deepening members' involvement with the group's activities and ideological aims, cementing their commitment to the movement.

In some cases, the very architecture of the platform does actually help the process of mobilisation and community building. Gaudette et al., (2021) delves into how Reddit facilitates the formation and mobilization of right-wing extremist groups by offering specialized communities, or subreddits, such as r/The_Donald, where like-minded individuals can foster a collective identity. This identity is reinforced by Reddit's voting mechanism, which amplifies popular extremist views and suppresses dissent, creating an echo chamber that normalizes such ideologies. This strong sense of community bolsters a shared "us versus them" mentality, crucial for radicalization and mobilization, allowing members to coordinate activities, spread strategic information, and recruit new members effectively. The platform's features, including user anonymity and the ability to create multiple accounts, further aid extremists in organizing and executing plans without detection, making Reddit a powerful tool for promoting radical ideologies and mobilizing followers to

take real-world actions based on their virtual engagements.

This is also true in the case of Facebook and the use of hyperlinks where far-right groups in Europe such as PEGIDA (Patriotic Europeans Against the Islamization of the Occident) and Generation Identity adeptly use hyperlinking to various media sources, not only to disseminate their ideologies but also to enhance and affirm a collective identity rooted in opposition to Islam. By linking predominantly to mainstream media, far-right media, and other aligned groups, these organizations leverage social media's vast reach and influence to propagate political issues, especially those related to anti-Muslim immigration. This activity underscores social media's role for organizational coordination and strategic communication.

In conclusion, the digital environment, particularly platforms like Facebook, Reddit, and YouTube, serves as a crucial arena for radical groups, enabling them not only to disseminate ideologies but also to enhance group cohesion and facilitate effective mobilization. Studies have shown how these platforms allow radical groups to reach vast audiences, bypass traditional media gatekeepers, and directly engage with followers, as seen in Heft et al. (2022)'s examination of radical right parties in Europe and Hutchinson (2019)'s analysis of far-right groups in Australia and Canada. Additionally, platforms like Reddit support the creation of specialized communities that cultivate collective identities and echo chambers that amplify extremist views, crucial for radicalization and mobilization efforts. The strategic use of hyperlinks by groups like PEGIDA and Generation Identity on Facebook further underscores the role of social media in organizational coordination and strategic communication, demonstrating the integral role these digital platforms play in the dynamics of modern political and social movements.

DISCUSSION

Information Seeking and Ideological Affirmation through Hypertextuality and Interactivity

The dynamics of information seeking and ideological affirmation on social media, facilitated by hypertextuality and interactivity, significantly contribute to the process of radicalization. These digital platforms offer an environment where users not only consume content passively but actively seek information that aligns with their interests or ideological leanings. The structure of hypertextuality in social media allows for a non-linear exploration of content, where users can navigate through interconnected links, delving deeper into specific topics. This is particularly exploited in the context of radicalization, where hypertextual links can lead users down a rabbit hole of increasingly radical content, reinforcing their pre-existing views and potentially leading to further radicalization.

For instance, the strategic use of social media such as X and Youtube by groups like ISIS involves the dissemination of interconnected content through various forms of media, including text, video, and infographics, which are often hyperlinked to provide a deeper, more immersive experience (Putri, 2018; Putri et al., 2022). This is a prime example of hypertextuality. Hypertextuality means that as user

consume one content, the alogorithm in both X and Youtube recommend similar content to them. In such a setting, user can "stumble" to more radical materials without deliberately seeking it. This method enhances the learning and indoctrination process, making it more effective by continuously engaging users and providing them with a pathway to more radical material. Similarly, platforms' algorithms exploit users' behavioral data to present them with content that matches their previous interactions, thus creating a personalized information ecosystem that frequently reinforces specific worldviews and ideologies (Archetti, 2015).

The interactivity feature of social media platforms further amplifies this effect by enabling users to engage with content through comments, shares, and likes, making the radicalization process interactive and participatory. Users are not mere recipients of information but active participants who can influence and be influenced by others within their network. This interactive engagement is crucial in the formation and reinforcement of extremist beliefs as it provides a sense of community and belonging, key factors in sustaining ideological commitment. The ability to interact with content also allows for the dynamic spread of extremist ideologies, as seen in how radical groups manage to effectively use social media to reach wide audiences and engage them directly with highly targeted, emotionally charged propaganda (Eerten et al., 2017; Hollewell et al., 2022).

For example, Reddit's structure, being inherently community-driven, plays a pivotal role in fostering environments where radical beliefs can thrive. The platform allows users to create and join subreddits dedicated to specific topics, including those that harbor extremist ideologies. Within these communities, users interact with like-minded individuals, creating an echo chamber that reinforces their beliefs. For example, r/The_Donald, a subreddit initially created to support former U.S. President Donald Trump, became infamous for hosting and amplifying far-right content, including racist, xenophobic, and violent rhetoric. Posts on this subreddit often contained conspiracy theories, hate speech, and calls for violence against political opponents. The constant reinforcement of these radical ideas through community interactions significantly deepened and solidified these beliefs, illustrating how Reddit can serve as a significant platform in the radicalization ecosystem (Marwick et al., 2022).

The hypertextuality of Reddit's structure further enhances its role in radicalization. The non-linear nature of online content allows users to meander through interconnected links, subreddits, and posts, leading to a multi-faceted, non-sequential consumption pattern. For instance, a user on r/The_Donald could easily be led to related subreddits or external sites that further entrench them in far-right ideologies. This hypertextuality ensures that users are not only exposed to radical content within a single community but are also continuously directed to additional, often more extreme, sources of information. This creates a web of interconnected radical content that users can navigate, deepening their engagement and accelerating their radicalization.

The interactivity inherent in Reddit's platform plays a crucial role in this process as well. Unlike traditional

media, where audiences are largely passive recipients, Reddit's platform enables users to be active participants in the communication process. Through Computer-Mediated Communication (CMC), users on Reddit can upvote, comment, share content, and even create their own posts, thereby shaping the discourse within these communities. For example, r/MillionDollarExtreme, a subreddit associated with a comedy group known for its alt-right content, became a hub for white nationalist discussions, racist memes, and the promotion of far-right ideologies. The interactivity on Reddit empowered users not only to consume content but also to actively participate in the creation and dissemination of extremist views. This active participation allows users to engage deeply with the content, solidify their beliefs, and encourage others to do the same, thereby amplifying the reach and impact of these harmful ideologies (Habib et al., 2022).

Reddit's platform dynamics, which encourage persistent engagement in specific communities, are also crucial in the gradual radicalization of users. As users spend more time within certain subreddits, they are continually exposed to increasingly extreme content. This sustained exposure, coupled with active participation in discussions, allows radical ideas to become normalized. For example, r/frenworld, a subreddit that disguised its white nationalist and anti-Semitic content under a veneer of childlike language and cartoonish images, gradually radicalized its members by normalizing hate speech in a seemingly harmless context. The hypertextuality of Reddit further compounds this effect, as users are guided through a labyrinth of related content, where each link leads them deeper into the ideological echo chamber. The interactivity on Reddit—through commenting, upvoting, and direct messaging—facilitates deeper immersion into these communities, where users are not merely passive consumers but active participants in their own radicalization. This active engagement helps to subtly and continuously nudge users towards more extreme positions over time (Necaise et al., 2021).

Moreover, the combination of hypertextuality and interactivity facilitates the establishment of echo chambers, where users are increasingly exposed to similar ideas, which are echoed back without exposure to counter-narratives. This environment is highly conducive to radicalization, as it allows for the constant reinforcement of extremist ideologies without the challenge of opposing views, thereby normalizing radical perspectives and integrating them into the identity of users (Schumann et al., 2021; Richey &Binz, 2015).

Social Identity Formation and Community Building through Demassification and Asynchronicity

The processes of demassification and asynchronicity in social media play pivotal roles in the formation and strengthening of radical communities. Demassification, the breakdown of large audience blocks into smaller, more homogenous groups, aligns perfectly with the radical groups' strategy to target specific demographics. Asynchronicity, the capacity for messages and interactions to occur at any time rather than in real-time, further facilitates the

deepening of radical ideologies without the immediate pressures of live communication.

The demassification of media has been significantly accelerated by the algorithms underlying social media platforms, which curate and present content to align with the nuanced preferences of individual users. This mechanism allows radical groups to micro-target individuals with specific vulnerabilities or inclinations, as identified in studies like those by Archetti (2015) and Putri (2018), where social media platforms such as X and Youtube played critical roles in the dissemination of extremist propaganda by ISIS and Al Qaeda. By leveraging these algorithms, radical groups can create tailored messages that resonate deeply with individual users or small groups, thus enhancing the recruitment process and ideological affirmation without the need for broad-spectrum propaganda strategies. In Youtube, for example, a specific channel can cater to a certain audience while different audience groups can be reached through different channel. Similarly, X accounts can be optimised to certain audiences, making the contents highly tailored.

Asynchronicity complements demassification by allowing these interactions to happen across different time zones and schedules, giving users the flexibility to engage with radical content at their own pace. This aspect is particularly crucial in the radicalization process, as it enables continuous exposure to radical content, reinforcing ideologies through repeated engagements that occur at the user's convenience. For instance, users can revisit and interact with radical content multiple times, which can lead to a

deeper internalization of extremist beliefs as detailed by Hollewell et al. (2022). They illustrate how individuals are drawn into deeper levels of engagement due to the asynchronous nature of social media, gradually adopting radical views through prolonged exposure to extremist narratives and community reinforcement. For instance, on X, users can follow accounts or hashtags associated with radical ideologies, allowing them to regularly revisit and engage with extremist content. Each interaction—whether it's liking, retweeting, or commenting—reinforces the exposure to these ideas. Over time, this continuous engagement can facilitate the deeper internalization of extremist beliefs, a process highlighted by Hollewell et al. (2022) in their study.

The combination of demassification and asynchronicity has also facilitated the creation of tight-knit communities that are highly insulated from outside perspectives. These digital echo chambers not only reinforce existing beliefs but also accelerate the radicalization process by creating a feedback loop where radical ideas are continuously circulated, amplified, and normalized within the community. This phenomenon is particularly evident in the recruitment strategies employed by terrorist organizations, which use these digital platforms to foster a sense of belonging and identity among recruits, further solidifying their radical ideologies and commitment to the cause.

Moreover, the asynchronous communication enabled by social media allows for the strategic timing of messaging, which can be designed to coincide with real-world events or personal crises, thus maximizing the

emotional impact and persuasive power of radical narratives. This tactic has been observed in numerous cases where radical groups have coordinated their online propaganda efforts with ongoing conflicts or political unrest to enhance the recruitment and mobilization of supporters.

A notable example of the strategic timing of radical content dissemination in response to real-life events is the exploitation of the COVID-19 pandemic by extremist groups. During the early stages of the pandemic, several far-right X accounts in the United States and Europe took advantage of the widespread fear and uncertainty to spread their radical narratives.

For instance, white supremacist groups leveraged the global health crisis to promote conspiracy theories, suggesting that the pandemic was either a hoax or a deliberate act by governments to control populations. They also amplified anti-Semitic and anti-immigrant sentiments, blaming certain ethnic groups or immigrants for the spread of the virus. This messaging was strategically released on Telegram during moments of peak crisis, such as during lockdowns or when infection rates spiked, to tap into the heightened emotional states of individuals(Gunton, 2022).

Global Reach and Real-Time Communication through Asynchronicity

Asynchronicity in social media significantly amplifies the dissemination capabilities of radical groups, offering global reach and the ability to communicate their messages across diverse geographical locations in real time. This feature of digital platforms not only enables the perpetual availability of radical content but also enhances its accessibility, allowing for a broad and persistent influence that transcends temporal and spatial limitations.

The concept of asynchronicity ensures that radical messages can be accessed and interacted with at any time, irrespective of the original time of posting. This characteristic is crucial for groups that operate globally, as it allows them to engage with a worldwide audience without the constraints of time zones or individual schedules. As Thompson (2011) notes, the expansive reach and accessibility of social media make it an ideal platform for disseminating radical ideas. The design of these platforms, initially meant to foster social interactions, has been co-opted to serve more nefarious purposes, providing a persistent and pervasive channel for the spread of extremist ideologies.

Moreover, the asynchronous nature of social media interactions means that content can continue to engage users long after it has been posted, contributing to a sustained cycle of radicalization. This is particularly effective in environments where real-time communication may be hindered by censorship or other restrictions. Richey & Binz (2015) emphasize the robustness of social media as a communication tool, even under governmental censorship. They highlight how individuals in restrictive regimes continue to access and utilize these platforms, often bypassing censorship measures to engage with radical content. This persistent engagement is facilitated by the asynchronicity of social media, which allows users to access content at their convenience, ensuring that

messages reach their intended audience despite attempts at suppression.

The cumulative effect of asynchronous communication is significant in the context of global radical movements. It allows these groups to maintain a continuous presence online, engaging with users over extended periods and across different geographical boundaries. This persistent availability and accessibility of content help radicalize new users and reinforce the ideologies among existing followers, thus expanding the reach and impact of radical groups.

Adaptation, Countermeasures, and Intervention Implications

Incorporating insights from the UGT and the dynamics of CMC offers a sophisticated framework for developing counter-radicalization strategies on social media. This approach recognizes that individuals actively seek out media to satisfy various needs—ranging from information and entertainment to social interaction and personal identity reinforcement—and that these motivations can inadvertently lead them towards radical content. By understanding and addressing these underlying motivations, counter-radicalization efforts can be tailored to provide alternative sources of gratification, potentially diverting individuals away from the path of radicalization.

Enhancing media literacy becomes crucial when viewed through the UGT lens, emphasizing not just the critical assessment of online content but also an awareness of one's own media consumption motivations. Tailoring educational programs to make individuals aware of how extremist groups might manipulate their desires for community, identity, and information can reduce the appeal of radical content. Similarly, promoting diverse narratives and counter-narratives should focus on fulfilling the gratifications that users seek from extremist content(Aly et al., 2014), offering positive alternatives that meet their needs for belonging, validation, and engagement(Frau-Meigs, 2019; Jerome & Elwick, 2019; Nienierza et al., 2021).

The principles of interactivity, demassification, hypertextuality, and asynchronicity, as identified in contemporary UGT, provide further insights into crafting effective counter-radicalization measures. Interactivity suggests the need for engaging counter-narratives that invite user participation, while demassification points towards the importance of messages tailored to the specific needs of targeted user segments(Carthy et al., 2020). Hypertextuality underscores the necessity for a pervasive counter-narrative presence across digital platforms, and asynchronicity highlights the advantage of making counter-radicalization content accessible at any time to provide timely interventions(Brown & Saeed, 2015; Carthy et al., 2020; Carthy&Sarma, 2023).

Applying these insights means that social media platforms and policymakers must work together to understand user behavior deeply, refine algorithms to promote diverse content, and create supportive online environments. This collaborative effort should extend to fostering international cooperation and sharing best practices to effectively combat the global challenge of radicalization. By leveraging the granular insights provided by UGT into user motivations and the capabilities offered by CMC, stakeholders can develop nuanced strategies that not only

counteract the spread of extremist ideologies but also address the root motivations driving individuals towards such content.

CONCLUSION

This study investigates the multifaceted role of social media in the spread of radical views and in formulating strategies for both prevention and deradicalization. It integrates a comprehensive literature review that interpret existing study from a new perspective to probe the motivations behind users' engagement with extremist content on social media. By applying the Uses and Gratifications Theory (UGT), this research provides a detailed analysis of how social media impacts society and explores potential changes that could be made to policies and platform designs to mitigate radicalization.

The main findings underscore the significant role of social media in the recruitment and spread of extremist ideologies, especially targeting vulnerable demographics like impressionable youths. The design and algorithms of these platforms, initially intended to enhance user engagement and content distribution, inadvertently facilitate radicalization by creating echo chambers and filter bubbles. These digital environments promote a cycle where radical views are not only disseminated but can also be continuously reinforced within these isolated groups. The study highlights the dual nature of social media, which serves as a potent medium for both the dissemination of radical views and as a platform for deradicalization efforts, depending on how it is utilized.

These findings contribute significantly to the field of communication and terrorism studies by providing a deeper understanding of the digital mechanisms underlying radicalization. The application of UGT highlights the active role of users in seeking content that meets their specific needs, suggesting that radicalization on social media is not merely a result of passive content consumption but also of users' active engagement with content that fulfills certain psychological or social needs.

However, the study recognizes its limitations, particularly in the scope of data and the evolving nature of social media algorithms, which may affect the generalizability of the findings. Despite these limitations, the study's contribution lies in its comprehensive approach to understanding the role of social media in radicalization and its potential for informing more effective counter-radicalization strategies.

For future research, it is recommended to further investigate the impact of algorithm changes on user behavior and radical content dissemination. Additionally, exploring the effectiveness of counter-narratives and alternative content in fulfilling the same needs that drive users towards radical content could provide valuable insights for developing more effective deradicalization strategies.

In terms of practice and policy, the study suggests that social media platforms and policymakers collaborate closely to refine algorithms and content moderation policies, promoting diversity of content and supporting the dissemination of counter-narratives. Educational programs enhancing media literacy and addressing users' motivations for engaging with content are also recommended. Finally, fostering international cooperation and sharing best practices can amplify efforts to combat radicalization.

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