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Executive Summary

The Horizon Scanning report 2016-2023 comes at an advanced stage of the SMIDGE project and offers an updated and integrated analysis of the evolution of conspiracy theories, disinformation, and extremist narratives in the contemporary digital information ecosystem, with a particular focus on trends and behaviours affecting the 45-65 age group.

A key contribution of the report is its increased focus on the middle-aged population (45-65 years), analysed not only as a group exposed to specific information vulnerabilities, but also as a key player in the social and family mediation of digital content. The interdisciplinary analysis shows how this demographic group plays a strategic role in the dissemination and normalization of conspiracy narratives, partly due to its intermediate position between traditional media and digital environments, as well as its high level of involvement in decision-making and socio-political processes.

As already highlighted in the first Horizon Scanning Report, conspiracy theories and disinformation are not recent phenomena, but have their roots in long-standing historical, social, and cultural dynamics. However, in the contemporary context, these phenomena have taken on unprecedented characteristics in terms of speed of circulation, global reach, and ability to influence individual and collective decision-making processes.

In the years following the most acute phase of the COVID-19 pandemic, the global information ecosystem has been further destabilized by armed conflicts, geopolitical tensions, economic transformations, environmental challenges, technological developments, the emergence of generative artificial intelligence, and the growing centrality of social media platforms. Against this backdrop, disinformation and conspiracy theories have continued to proliferate,

integrating political, scientific, technological, cultural, and spiritual elements into increasingly complex worldviews.

Based on an interdisciplinary approach that integrates perspectives from sociology, politics, religion, philosophy, psychology, law, and technology, the report maps interconnected “conspiracy ecosystems” that include narratives about political power and hidden elites, health denialism, technological surveillance and control, cultural identity shifts, geopolitical tensions, and spiritual aspects, which reinforce each other through highly adaptive digital dissemination channels.

The report clarifies how algorithmic amplification, generative artificial intelligence tools such as deepfakes, and social media echo chambers fuel processes of gradual radicalization, exploiting the specific vulnerabilities of middle-aged users who often use digital platforms in an uninformed manner due to several factors, including, first and foremost, the persistent digital divide.

Empirical evidence reviews conducted as part of the project reveal the greater susceptibility of this demographic to emotionally engaging content, especially in crisis situations such as the COVID-19 pandemic and ongoing geopolitical tensions, which systematically erode trust in public institutions and exacerbate polarization dynamics. Legal analyses highlight the progressive regulatory framework of the European Union, which includes the Digital Services Act, the AI Act, and the European Media Freedom Act, which seek to reconcile robust protection of freedom of expression with greater responsibility and accountability of platforms. Meanwhile, psychological insights reveal nuanced paradoxes, such as cases where heightened analytical thinking, rather than acting as a safeguard, can inadvertently reinforce conspiracy theories by rationalizing intricate narratives aligned with biases.

Taken together, these findings aim to provide a greater understanding of the issues from different perspectives and provide policymakers and stakeholders with a solid basis for

developing targeted, evidence-based countermeasures, including tailored literacy initiatives and multi-stakeholder strategies aimed at strengthening democratic resilience, while respecting fundamental rights and principles of transparency.

Introduction

This report represents an update and systematic deepening of the theoretical and analytical framework outlined in the first deliverable of the SMIDGE project. Following the initial phase of interdisciplinary reconnaissance and definition of the conceptual scope of the research, this second report comes at a more advanced stage of the project, characterized by greater integration between theoretical analysis, empirical evidence, and interpretative tools. The main objective is to consolidate and broaden our understanding of the processes of dissemination of disinformation, conspiracy theories, and online extremism among the middle-aged population (45–65 years), in light of new developments that emerged in the period 2023–2025.

As already highlighted in the first report, conspiracy theories and disinformation are not recent phenomena, but are rooted in long-standing historical, social, and cultural dynamics. However, in the contemporary context, these phenomena have taken on unprecedented characteristics in terms of speed of circulation, global reach, and ability to influence individual and collective decision-making processes. The evolution of digital technologies, the emergence of generative artificial intelligence, the growing centrality of social media platforms, and the changed geopolitical landscape have contributed to transforming conspiracy narratives into complex and interconnected systems capable of rapidly adapting to changes in the context.

In the years following the most acute phase of the COVID-19 pandemic, the global information ecosystem has been further destabilized by health crises, armed conflicts, geopolitical tensions, economic transformations, and environmental challenges. In this scenario, disinformation and conspiracy theories have continued to proliferate, integrating political, scientific, technological, cultural, and spiritual elements into increasingly complex and coherent worldviews. This second report aims to analyze these dynamics in a systemic way,

moving beyond fragmented approaches focused on individual narratives and adopting an ecosystemic perspective.

In line with the first deliverable, particular attention is paid to the middle-aged population, which occupies a central position in family, work, economic, and civic contexts. This demographic group plays a crucial role in the processes of information mediation and content transmission, making it particularly relevant both as a recipient and as a potential amplifier of disinformation narratives. The evidence gathered during the project confirms that, despite growing scientific attention, the specific dynamics involving this age group remain understudied and require further investigation.

During the project, SMIDGE has progressively broadened its scope of analysis, integrating sociological, political, legal, philosophical, psychological, religious, and technological perspectives. This report reflects this interdisciplinary maturation, offering a structured summary of the main evidence that has emerged and introducing a conceptual map of contemporary conspiracy ecosystems. This tool allows us to visualize the main thematic areas, their interconnections, and the paths of progressive radicalization, offering innovative analytical support for interpreting the phenomenon.

Compared to the first report, which focused mainly on theoretical reconnaissance and defining the field of research, this second deliverable focuses more on systematizing the results, analyzing recent transformations, and identifying the structural mechanisms that support the spread of disinformation. Particular attention is paid to the role of algorithmic amplification, emerging technologies, and microtargeting practices.

This document therefore aims to provide an up-to-date and interdisciplinary knowledge base for understanding the evolution of conspiracy theories in the contemporary digital context. Through the integration of theoretical analysis, empirical data, and conceptual mapping tools, the report aims to support the subsequent development of evidence-based prevention and

countermeasures strategies that are sensitive to the specificities of the middle-aged population and consistent with the principles of democracy, transparency, and the protection of fundamental rights, which are brought together in the Report on Guidelines, Recommendations, and Policy Briefs.

Methodological considerations

The methodology adopted in this report was conceived as a systematic update and analytical extension of the first SMIDGE Horizon Scanning report, with the aim of exploring new developments and emerging trends in the period 2023–2025, resulting from the consequences of the pandemic emergency and the geopolitical context and their impact on the digital information ecosystem and the dynamics of online radicalization, with particular reference to the spread of disinformation, conspiracy theories, and online extremism among the middle-aged population (45–65 years).

The methodological strategy adopted is interdisciplinary and integrated, combining desk research, document analysis, systematic review of scientific literature, digital content analysis, and empirical contributions from the project's various Work Packages. This approach was deemed necessary in order to grasp the complex, dynamic, and multi-level nature of the phenomenon under study, as well as to ensure consistency with the theoretical and methodological framework defined in the first report.

From an organizational point of view, each project Partner contributed to the drafting of this report based on their specific expertise, developing the respective thematic chapters and providing analytical contributions consistent with the overall objectives of the project.

Inclusive Europe was responsible for the analysis of sociological perspectives, Kosovar Centre for Security Studies dealt with religious perspectives, De Montfort University developed the analysis of philosophical perspectives, while the UCLan Cyprus contributed to the in-depth analysis of psychological perspectives. De Montfort University and University of Copenhagen also collaborated on the analysis of dimensions related to social media and digital technologies.

The University of Milan was responsible for analyzing legal and political perspectives, as well as developing and analyzing a conceptual map of the main conspiracy theories that emerged and were identified during the research. In addition, the University of Milan played a scientific and methodological coordination role, initially defining the objectives and scope of each chapter, providing guidance on the aspects to be analyzed, and supervising the process of integrating the contributions. In particular, UMIL was responsible for harmonizing the language, structure, and methodological approach of the report, as well as drafting the introductory, concluding, and methodological sections, in order to ensure the consistency, uniformity, and overall quality of the document.

The first phase of the research involved a targeted review of the scientific literature, aimed at identifying new developments, emerging trends, and changes in the patterns of dissemination of disinformation and conspiracy narratives following the acute phase of the pandemic. This review integrated and updated the previous analysis covering the period 2016-2023, already carried out in the first Scanning Report, allowing for an understanding of the evolution of the phenomenon. In this phase, both general and specific keywords were used, including disinformation, fake news, conspiracy theories, online extremism, digital radicalization, artificial intelligence, deepfakes, social platforms, polarization, middle-aged population, 45-65 years old, and information vulnerability.

The second phase involved systematizing the results emerging from the literature review and integrating the results of the analyses conducted by each partner in their own field of research, through a thematic classification consistent with the project's areas of analysis, including sociological, political, religious, philosophical, psychological, communicative, technological, and legal dimensions. Particular attention was paid to identifying contributions that analyze the impact of disinformation and extremist content on the 45-65 age group, as well as works

that explore the links between vulnerability factors, amplification mechanisms, health crises, geopolitical instability, technological innovation, and radicalization dynamics.

To achieve the research objectives, various academic databases and search engines were used, including Scopus, Web of Science, Google Scholar, Minerva, and other specialist platforms, in order to ensure broad coverage of available sources. The corpus analyzed includes peer-reviewed scientific articles, institutional reports, policy documents, monographs, conference proceedings, and interdisciplinary contributions from fields such as sociology, psychology, political science, media studies, law, computer science, and information science.

Overall, the methodology adopted has made it possible to develop an up-to-date, systemic analysis that is comparable with the first report, strengthening the focus on the middle-aged population and providing a solid empirical and theoretical basis for the subsequent development of operational and policy recommendations on combating disinformation and conspiracy theories.

1.0 Conspiracy theories

In the contemporary context, the spread of conspiracy theories is increasingly becoming a structural phenomenon of the digital information ecosystem, characterized by high complexity, thematic interconnection, and adaptive capacity.

As highlighted in the first report of the SMIDGE project (Horizon Scanning Report 2016–2023), the circulation of disinformation and conspiracy narratives is strongly linked to the use of social media, socio-political crises, and the progressive erosion of trust in public institutions, traditional media, and scientific expertise. The most recent analyses conducted as part of the project's second research cycle, in particular the Report on Conspiracy, misinformation and extremist content update (D 3.4), Progress Report on social network analysis and text analysis (D 4.1), Social Network Analysis and Text Analysis Report (D 4.2), Sentiment Analysis Report (D 4.3), Report on Networking Technologies update (D 4.5), Progress Report on data scraping extremist content (D 4.6), Report on social media extremist textual analysis update (D 4.9), Progress Report on online survey (D 5.1), Report of focus groups analysis (D 5.3) Counter-narrative Videos and Micro-Content Interim Report (D 6.1), and Webinar Report (D 6.3), show that such narratives no longer appear as isolated or episodic statements, but as articulated systems of meaning that integrate political, philosophical, health, technological, cultural, and spiritual dimensions, giving rise to veritable conspiracy ecosystems.

In this context, a first core consists of conspiracy theories about political and institutional power, which attribute social and economic events to the actions of hidden elites, hidden governance structures, or secret transnational networks, as in the case of narratives about systematic electoral fraud, the so-called “deep state,” the loss of national sovereignty, the Great Reset, and the alleged manipulation exercised by supranational organizations. These theories

serve to delegitimize democratic institutions and foster political disaffection, ideological polarization, and the progressive radicalization of individuals.

A second particularly relevant area concerns health theories and scientific denialism, which have expanded significantly during the COVID-19 pandemic and continue to manifest themselves in relation to issues such as vaccination, 5G networks, alternative treatments, the alleged suppression of effective therapies, and climate change. Such narratives undermine trust in scientific authority, hinder the adoption of preventive behaviors, and compromise the effectiveness of public policies in the health and environmental fields, producing significant social and institutional consequences. At the same time, the development of digital technologies has fostered the spread of conspiracy theories focused on surveillance, algorithmic manipulation, and technological control, including narratives about subcutaneous microchips, digital identity, artificial intelligence as a tool of domination, and the systemic use of deepfakes to falsify reality. The network analyses presented highlight how such content frequently benefits from algorithmic amplification mechanisms and highly centralised communication structures, in which a limited number of actors play a disproportionate role in the dissemination of conspiracy narratives.

Another significant cluster is represented by identity and cultural theories, which interpret social change in terms of an alleged deliberate plan to destroy traditional values, including the so-called “gender conspiracy theory,” narratives about school indoctrination, “cultural Marxism,” conspiracy interpretations of LGBT+ rights, and distorted representations of migration. Such narratives fuel moral panic, reinforce dynamics of exclusion, and contribute to the construction of political identities based on cultural opposition.

In the geopolitical sphere, international crises and armed conflicts provide a fertile ground for the spread of conspiracy theories that interpret events as being orchestrated by hidden powers, through narratives about “crisis actors”, systemic media manipulation, and the fictitious nature

of wars. In recent years, these areas have been accompanied by the growth of occult and conspiratorial narratives that combine elements of conspiracy theories, New Age spirituality, alternative medicine, and wellness cultures, giving rise to totalizing worldviews centered on concepts such as “awakening,” “ascension,” “revelation,” and the cosmic struggle between the forces of good and evil.

As qualitative and textual analysis shows, these narratives often serve as a bridge between seemingly apolitical content and more explicit forms of ideological radicalization, facilitating gradual paths of involvement. Based on this evidence, the SMIDGE project has developed a conceptual map of conspiracy ecosystems that systematically represents the main thematic areas and their interconnections, structured around a central core consisting of the conspiracy worldview, characterized by systemic distrust, moral polarization, the search for hidden intentions, and the rejection of official scientific sources.

Around this core, interconnected clusters develop relating to political power, health and science, technology, cultural identity, geopolitics, and spirituality, whose relationships highlight how narratives reinforce each other and facilitate the transition from moderate forms of skepticism to more rigid ideological systems. The empirical evidence collected also indicates that adherence to these ecosystems generally follows progressive trajectories, characterized by the gradual integration of new content into pre-existing interpretative frameworks, in a context of increasing epistemic closure. In particular, the middle-aged population, identified as a priority interest group, is particularly relevant in these dynamics due to its central role in family, work, and community contexts, which amplifies the social impact of conspiracy narratives.

The map of the main disinformation ecosystems therefore plays a fundamental analytical and operational role, allowing us to move beyond fragmented approaches focused on individual

cases of disinformation and adopt a systemic perspective that can guide prevention, intervention and policy-making strategies based on empirical evidence.

In conclusion, contemporary conspiracy theories are complex, adaptive, and interconnected narrative systems capable of transforming social uncertainty into coherent but distorted worldviews, with significant effects on the quality of public debate, institutional trust, and democratic cohesion.

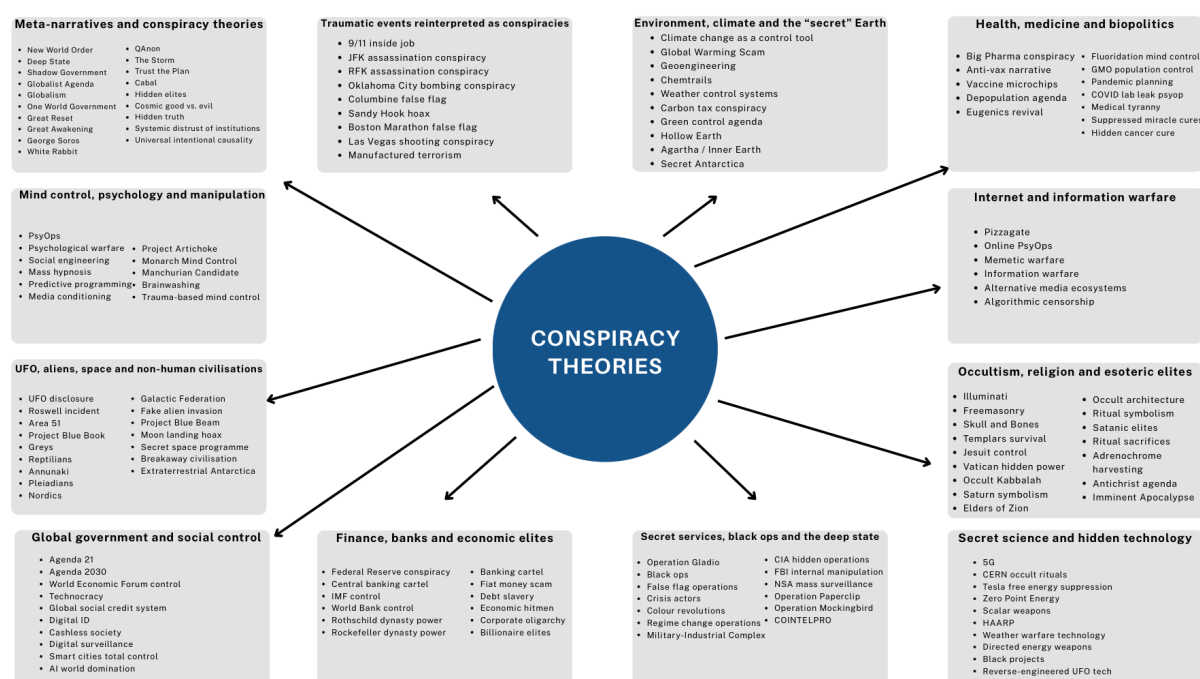


Figure 1 - Mapping of the main conspiracy theories addressed in the SMIDGE project, classified by thematic category

2.0 Sociological perspectives

2.1 A Sociological Examination of Polarisation, Social Instability and the Digital Divide

In recent years, misinformation and conspiracy theories have become increasingly prominent, fuelled by the expansive reach of digital platforms. These phenomena pose significant challenges to democratic societies by fostering political polarisation, eroding trust in institutions, and destabilising social cohesion. Understanding the sociological implications of misinformation and conspiracy theories requires a nuanced exploration of how they intersect with socio-economic conditions, demographic factors and systemic inequalities, thereby reshaping public trust and societal stability.

2.2 The Proliferation of Misinformation and Conspiracy Theories

Misinformation, broadly defined as false or misleading information shared without malicious intent, contrasts with disinformation, which is intentionally deceptive (Marino & Iannelli, 2023). Both forms of problematic information thrive in the digital age due to the erosion of traditional media gatekeeping, the speed of online communication, and the creation of “echo chambers” where like-minded individuals reinforce each other's views (Marino & Iannelli, 2023). Social media has become a key platform for circulating conspiracy theories, capitalising on existing social anxieties by providing simplistic explanations for complex issues (Lewandowsky et al., 2017).

For example, conspiracy theories related to COVID-19 or climate change are often shared to cast doubt on scientific expertise and governmental legitimacy, as they offer simplified explanations for complex issues and validate scepticism toward mainstream authorities. Their appeal lies in addressing emotional needs for clarity and control during uncertain times, particularly within polarised contexts where distrust in institutions is already high (Enders & Uscinski, 2021).

The impact of misinformation and conspiracy theories is further compounded by the emotional satisfaction they provide, particularly in times of uncertainty. According to Lewandowsky et al. (2017), conspiracy theories offer narratives that appeal to people's need for control and meaning, particularly in periods of social or economic crisis. This psychological appeal makes such theories resilient to correction, as they satisfy emotional needs in ways that fact-based information cannot. As people lose faith in traditional sources of authority, they turn to alternative sources that validate their worldview, regardless of factual accuracy (Marino & Iannelli, 2023).

2.3 Political Polarisation and the Spread of Misinformation

Political polarisation both drives and is exacerbated by misinformation (Marino & Iannelli, 2023). In highly polarised environments, individuals gravitate toward information that aligns with their ideological stance, often disregarding the accuracy of such content (Osmundsen et al., 2021). This selective exposure creates feedback loops, where individuals reinforce their preexisting beliefs and reject contrary viewpoints, a phenomenon that social media algorithms may intensify. The consumption of pro-attitudinal content on social media platforms intensifies political divides, which in turn increases people's susceptibility to misinformation (Marino & Iannelli, 2023).

Partisan beliefs are especially susceptible to manipulation by misinformation and conspiracy theories, which act as tools to further entrench group identities (Marino & Iannelli, 2023). For example, individuals may use conspiracy theories to vilify political opponents or justify their own group's beliefs (Osmundsen et al., 2021). Levinson et al. (2021) even find worrisome evidence of an association between endorsement of COVID-19 conspiracy beliefs and violent radicalisation. The emotional appeal of these narratives amplifies the ideological rift, transforming political differences into profound social divisions. Political extremists, especially on the far-right, are particularly prone to accepting conspiracy theories that validate their views and demonise their opponents (Enders & Uscinski, 2021). This trend underscores how misinformation exploits polarisation, using it as a medium to gain acceptance and traction within ideologically homogenous groups.

2.4 The Erosion of Trust in Democratic Institutions

The erosion of trust in democratic institutions is a central factor in the spread of misinformation and conspiracy theories. Trust is a foundational element of democratic societies, enabling citizens to delegate authority and rely on institutions to act in the public interest (Lewandowsky et al., 2017; Zimmermann & Kohring, 2020). However, declining trust in government, media and scientific authorities has created a fertile ground for alternative information systems that offer emotionally satisfying yet factually dubious narratives. This phenomenon is evident in the rise of anti-vaccine movements, climate denialism and political conspiracy theories, which exploit scepticism toward mainstream institutions to promote alternative realities that are often detrimental to public health and social order (Bennett & Livingstone, 2018; Lewandowsky et al., 2017; Zimmermann & Kohring, 2020). This shift fosters a “post-truth” environment, where empirical evidence becomes secondary to belief, undermining the social fabric that holds democratic societies together (Lewandowsky et al., 2017; Zimmermann & Kohring, 2020).

The rise of digital media has further complicated trust in traditional sources. Mainstream media, once seen as a relatively neutral authority, is now viewed with increasing suspicion by segments of the population who turn to partisan or alternative outlets for news. This dynamic is particularly pronounced in the digital age, as alternative media sources attract audiences with content that directly challenges mainstream narratives. Declining trust in media, therefore, not only leads people to seek information from alternative sources but also reinforces the sense of disillusionment with mainstream institutions (Bennett & Livingstone, 2018; Marino & Iannelli, 2023; Osmundsen et al., 2021).

2.5 Social Instability and the “Post-Truth” Era

Misinformation spreads through complex social networks, where individuals are influenced by peers and digital communities. Network analysis research, such as Bakshy et al. (2015) on Facebook’s role in disseminating misinformation, illustrates how digital platforms facilitate the viral spread of misleading content. Social contagion theories further explain how individuals adopt misinformation through social reinforcement, as repeated exposure increases perceived credibility (Lewandowsky et al., 2017).

The destabilising effects of misinformation and conspiracy theories extend beyond individual belief systems; they contribute to a “post-truth” society, where facts and evidence are often disregarded in favour of emotionally resonant narratives (Bennett & Livingstone, 2018; Lewandowsky et al., 2017; Zimmermann & Kohring, 2020). This shift undermines democratic dialogue, as shared facts and mutual understanding become difficult to achieve. In a “post-truth” world, groups increasingly retreat into ideologically homogenous bubbles, making consensus and compromise less attainable (Marino & Iannelli, 2023). This trend has significant implications for social cohesion, as it erodes the basis of democratic decision-making and fuels social instability.

Additionally, the rise of misinformation and conspiracy theories has exacerbated societal tensions, particularly in times of crisis. During the COVID-19 pandemic, for instance, conspiracy theories that cast doubt on scientific consensus and government policies proliferated, fuelling distrust in public health guidelines (Lewandowsky et al., 2017). These theories provided a foundation for resistance to public health measures, revealing the public health risks posed by misinformation. Moreover, the popularity of these theories highlights how individuals may turn to conspiracy theories as coping mechanisms, seeking clarity and order in a time of widespread uncertainty (Enders & Uscinski, 2021).

2.6 Media Literacy and the Digital Divide

Media literacy has emerged as a critical tool in addressing the spread of misinformation and conspiracy theories, particularly among middle-aged adults who face unique challenges as digital immigrants. This demographic often straddles the gap between traditional and digital media consumption, leaving them especially vulnerable to the pitfalls of the digital divide.

The digital divide refers to disparities in access to and proficiency with digital technologies, which disproportionately affect older generations. Middle-aged adults frequently lack the digital literacy skills needed to critically evaluate online content, making them susceptible to manipulative narratives that exploit existing biases. Research by van Deursen and van Dijk (2019) highlights how first-level digital divides, which refer to physical access to technology, have evolved into second-level divides, where disparities in digital skills and critical engagement persist. These divides are particularly pronounced in contexts where middle-aged users rely heavily on platforms like Facebook, where misinformation and echo chambers are pervasive (Guess et al., 2019).

Education plays a pivotal role in bridging these gaps. Tailored media literacy programs designed for middle-aged audiences can equip individuals with the skills to discern credible information, understand how algorithms shape online content, and recognise the techniques used in disinformation campaigns. Mihailidis and Viotty (2017) argue that fostering critical digital literacy goes beyond teaching users to identify “fake news”; it also involves cultivating a broader understanding of how digital ecosystems function and how users can engage with them responsibly.

Community-based approaches further enhance the effectiveness of media literacy initiatives. Programs that promote peer learning and collaborative engagement have been shown to build resilience against false narratives while fostering a sense of trust and inclusivity within communities (Fisher et al., 2021). For instance, initiatives that encourage middle-aged adults to critically analyse news stories within the context of their social networks can help counteract the effects of echo chambers and algorithm-driven content curation.

2.7 In summary

Misinformation and conspiracy theories in the digital age have reshaped public discourse, fostering political polarisation, eroding trust in institutions and creating social instability. A sociological approach highlights how these phenomena are not merely cognitive failures but are rooted in broader structural factors, including inequality, social trust deficits, and digital divides. Addressing these challenges requires a multi-pronged strategy that combines media literacy, social trust restoration, and regulatory measures to counteract the systemic conditions that allow harmful content to thrive. Only through such comprehensive approaches can democratic societies mitigate the destabilising effects of misinformation and safeguard collective resilience.

3.0 Political perspectives

3.1 Interrelations between Disinformation, Conspiracy Theories, and Political Ideologies

A central aspect of the project concerns the interrelationship between disinformation, conspiracy theories, and political ideologies, as well as the recognition that conspiracy theories represent a manifestation of vulnerability emerging when social motivations intersect with political expediency (Uscinski & Parent, 2014). An analysis of conspiracy theories from these perspectives highlights how such narratives and disinformation have historically been employed as instruments of political propaganda and within extremist ideologies (Cassam, 2023). According to Cassam, the elements that render many conspiracy theories unfounded are often evident; however, what ultimately matters is not their factual accuracy, but rather their capacity to appear persuasive and emotionally appealing (Cassam, 2023).

Among the most severe consequences, disinformation and conspiracy theories may enhance the appeal of extremist narratives, erode trust between citizens and governments, disseminate hate speech (for instance, by identifying specific groups or individuals as scapegoats), undermine respect for scientific evidence, mobilise violence, and even generate catastrophic social and political effects. This has been demonstrated, for example, by anti-vaccination propaganda that has encouraged vaccine refusal, thereby endangering public health (Warren, 2023). Conspiracy theories typically identify an enemy and construct a perceived threatening

secret plot, triggering defensive mechanisms that may foster distrust in public institutions, generate political disengagement, or promote radicalisation (van Prooijen, 2020).

In this context, studies indicate that individuals aged between 45 and 65 display specific vulnerabilities to conspiratorial narratives, linked to factors such as prolonged exposure to traditional media, incomplete transitions to the digital ecosystem, and high levels of engagement in political and decision-making processes. This combination renders this group particularly relevant both as recipients and amplifiers of disinformation (Guess et al., 2019; Nyhan & Reifler, 2015; Horizon Scanning Report 2016–2023, SMIDGE, 2024).

3.2 Political Extremism and Conspiratorial Beliefs

Although all political orientations – right-wing, left-wing, and centrist – have been exposed to conspiracy theories and disinformation, individuals located at the extremes of the political spectrum are more likely to endorse conspiratorial beliefs than moderates. This is because political extremism and conspiracy thinking both reflect similar cognitive frameworks aimed at making sense of complex social realities (van Prooijen et al., 2015; Krouwel et al., 2017).

Conspiracy theories are frequently associated with radical behaviours, racist attitudes, authoritarian tendencies, and extremist ideologies, all of which exert profoundly negative effects on society. The persistent recurrence of disinformative and conspiratorial phenomena suggests that they may perform a significant ideological function and contribute to escalating processes of radicalisation.

Among middle-aged populations, these dynamics are further intensified by the greater stability of political and social identities, combined with increased exposure to polarising narratives through consolidated social networks, both online and offline. Within this age group, conspiratorial beliefs may more easily integrate with pre-existing political orientations,

reinforcing processes of “silent” radicalisation that are difficult to detect through conventional prevention mechanisms (van Prooijen & Douglas, 2017; Guess et al., 2019; Progress Report on Online Survey, SMIDGE, 2024).

In recent years, a significant increase in alignment with far-right positions has been observed (Europol, 2025; van der Linden et al., 2021). According to the Institute for Economics and Peace, over the past decade, far-right terrorism has not been intrinsically linked to specific terrorist organisations, but rather to heterogeneous movements promoting racialised worldviews and conspiratorial interpretations of historical and socio-political events (Butter & Knight, 2020; Kruglanski et al., 2022).

With the growing electoral support for right-wing political formations in Europe and the increasing legitimacy of extremist positions, the political instrumentalisation of disinformation constitutes a matter of serious concern, highlighting the need for counter-strategies aimed at strengthening citizens’ critical thinking and evaluative capacities (DiMaggio, 2017; Uscinski & Parent, 2014; Bensley, 2023). Although extremist groups operating within the European Union do not always resort to explicit violence, their propaganda continues to exert substantial influence.

A particularly significant example is represented by the so-called “gender conspiracy theory”, widely disseminated in far-right environments. According to this narrative, gender studies and LGBTQ+ rights initiatives are portrayed as manifestations of a covert project designed to undermine traditional institutions – such as the Catholic Church – or destabilise the family unit, thereby fueling social divisions (Marchlewska & Cichocka, 2020; Fleckenstein, 2025; Cassese et al., 2020). The circulation of such narratives contributes to the spread of hate speech and violence and may produce particularly harmful political consequences (Uscinski & Parent, 2014).

3.3 Threats to Liberal Democracy

The political use of disinformation aims to manipulate public opinion not only to influence electoral outcomes, but also, in some cases, to preserve the status quo by diverting attention from critical socio-economic issues and redirecting public concern towards alleged external threats or political adversaries (Rhodes-Purdy et al., 2023).

This strategy proves particularly effective among middle-aged individuals, who often occupy central roles within families, local communities, and professional contexts, thereby functioning as key nodes of information transmission. Their social positioning amplifies the impact of disinformation narratives beyond the individual level (Progress Report on Social Network Analysis, SMIDGE, 2024; Vaccari & Valeriani, 2021).

In the political sphere, disinformation campaigns and conspiracy theories represent a significant threat to liberal-democratic values (Warren, 2023; Rhodes-Purdy, 2023; Papaioannou et al., 2023). As illustrated by the events of 6 January 2021, the instrumentalisation of false narratives may lead to physical violence and undermine electoral integrity (Bizel & Singh, 2023; Wang, 2022; van Rickstal, 2021; Rogers, 2021).

Further examples, such as the Trump and pro-Brexit campaigns, demonstrate how data-driven political strategies, facilitated by Cambridge Analytica, employed psychological profiling and microtargeting techniques to influence voters (Heawood, 2018; Berghel, 2018).

3.4 The Role of Social Media

Social media have become increasingly influential channels for political communication, providing extensive reach while simultaneously facilitating the dissemination of disinformation and conspiracy theories, thereby posing risks to democratic processes (Papaioannou et al., 2023; Haugsgjerd et al., 2023; Khaouja et al., 2025).

Among individuals aged 45–65, social media use is often characterised by lower levels of source verification and greater trust in content circulated within restricted social networks, particularly on platforms such as Facebook and WhatsApp (Guess et al., 2019; Fletcher et al., 2020; Social Network Analysis Report, SMIDGE, 2024).

The convergence of digitalisation, generative artificial intelligence, and social media has accelerated the erosion of boundaries between reality and fiction (Feldstein, 2023; Kreps & Kriner, 2023; Allen & Weyl, 2024). The emergence of deepfake technologies has further compromised information integrity and electoral decision-making processes (Kaplan & Haenlein, 2020).

3.5 The 2024 Elections: A Crucial Year

The year 2024 was widely described as “the year of elections”, marked by numerous global electoral campaigns, including those in the United States and in countries such as India, Indonesia, Venezuela, Croatia, and Mexico (Subetki et al., 2025), conducted in a context characterised by unprecedented technological challenges and persistent foreign interference threats.

During the 2024 US presidential elections, disinformation and conspiratorial narratives played a more prominent role than in previous electoral cycles, particularly with regard to immigration and border security (Ibrahim & Attia, 2025). Middle-aged voters were especially exposed to polarising and misleading content, with measurable effects on institutional trust (Sentiment Analysis Report, SMIDGE, 2024).

3.6 Hybrid Warfare

The Russian invasion of Ukraine has been described as the first digital world war (Sánchez del Vas & Tunón Navarro, 2024). The conflict illustrates the central role of information warfare in contemporary hybrid warfare strategies (Smidi & Shahin, 2017). The war has demonstrated how disinformation directly affects communities, societies, and democratic institutions (Matakos et al., 2017; Kreft et al., 2024).

3.7 The Dual Role of Artificial Intelligence

Despite the significant risks associated with AI-driven disinformation, artificial intelligence also holds considerable potential for strengthening democratic systems when used ethically and strategically. AI tools may facilitate real-time detection of false content, enhance media literacy, and promote transparency in electoral processes.

In particular, for middle-aged populations, AI-based instruments may support verification practices, strengthen digital competencies, and foster more informed media use. Targeted interventions addressing this demographic group therefore appear essential to enhancing the overall resilience of European societies against disinformation.

4.0 Religious perspectives

4.1 Understanding the Intersection of Conspiracy Theories and Religious Fundamentalism

Conspiracy theories are complicated sociocultural phenomena that illuminate how individuals and groups interpret the power structures, social events, and moral boundaries of their worlds. Though the label conspiracy theory may appear straightforward, it is a deeply contested term in academic discourse, often carrying pejorative and evaluative connotations. When these theories intertwine with religious beliefs, a complex tapestry of hidden enemies, cosmic struggles, and eschatological visions emerges. Based on the analysis of the existing literature, this chapter explores the intersections between conspiracy theories and religious fundamentalism, with a focus on themes such as “Deep State” narratives, QAnon, and discusses the ramifications that arise from fusing religion and conspiratorial thinking.

4.2 Understanding Conspiracy Theories

At its simplest, a conspiracy theory posits that a group of powerful actors is secretly coordinating events to achieve specific ends, typically of a malevolent nature. As Douglas and Sutton (2022) explain, a conspiracy theory is “an allegation that two or more actors have coordinated in secret to achieve an outcome, and that their actions are of public interest but not widely known by the public” (Douglas & Sutton, 2023). This clandestine element is central to conspiracy theories: the claim that what we see in public is an act, a charade—merely the tip of an iceberg of hidden agendas and clandestine machinations.

However, the phrase “conspiracy theory” is often charged with negative perceptions about credibility and rationality. Napolitano and Reuter (2023) note how conspiracy theorists are frequently portrayed as irrational and epistemically misguided. As a result, it is difficult to find

people that willingly apply the label of conspiracy to their own views or call themselves conspiracist. Instead, many resist it because of the term's association with unwarranted suspicion, paranoia, and detachment from empirical evidence. In an attempt to move away from the stigma, some scholars distinguish between “conspiratorial explanations”, which remain neutral, and “conspiracy theories”, which are steeped in evaluative judgments (Napolitano & Reuter, 2023).

The differences between warranted and unwarranted conspiracy theories further complicate discussions. Historical examples reveal that certain alleged conspiracies – such as covert governmental programs that were later substantiated – were initially dismissed as outrageous “conspiracy theories” but ultimately proved legitimate (e.g., Watergate). Meanwhile, many others remain immune to falsification, rely on anecdotal or cherry-picked evidence, and cast any contradictory data as part of the cover-up itself (Keeley, 1999). Thus, calling something a conspiracy theory in everyday usage often implies an epistemic stance: that the claim is implausible, paranoid, or socially dangerous.

One reason for the prevalence of conspiracy theories lies in their utility during times of social crisis. As Douglas and Sutton (2022) observe, conspiracy narratives emerge most forcefully during “times of crisis and social unrest when epistemic concerns are heightened”. Large-scale events – such as pandemics, terrorist attacks, or rapid shifts in social norms – can produce a sense of uncertainty, existential dread, or moral panic among the populace. Conspiracy theories then serve as a coping mechanism by offering comprehensive, albeit often simplistic, explanations that restore a sense of order. In so doing, they fulfill deeper psychological and emotional needs related to certainty, control, and belonging (Douglas et al., 2017).

While some interpret this reliance on conspiratorial thinking as a sign of pathology, it can also be viewed as a culturally mediated response to crisis or marginalization. When one's worldview is threatened – be it politically, socially, or religiously – a conspiracy narrative can restore

coherence. As Napolitano and Reuter (2023) argue, the usage of “conspiracy theory” is rarely neutral; it mirrors entrenched power relations and strategies for dismissing alternative viewpoints.

4.3 Religious Dimensions of Conspiracy Theories

Conspiracy theories that acquire a religious dimension bring an added layer of theology, eschatology, and moral dualism to the mix. In these forms, conspiracies are no longer merely secret political alliances or corporate machinations; they become cosmic battles of good vs. evil, where invisible spiritual forces conspire against the faithful. This helps to explain why certain religious communities – particularly those aligned with fundamentalist beliefs – display greater receptivity to conspiratorial narratives.

Many religions articulate end-times scenarios that paint the world in stark terms: the righteous must resist the final onslaught of demonic powers and false prophets. This eschatological lens easily adapts to a conspiratorial outlook. Actors who appear to threaten religious values – political elites, foreign powers, rival faiths, or perceived moral deviants—are cast as secret collaborators in a plot to usher in an era of tribulation.

From medieval European fears of Jewish plots (e.g., blood libel conspiracies) to the “Satanic Panic” that gripped parts of the Christian world in the 1980s and 1990s, apocalyptic thinking has supplied a moral impetus. Believers see themselves as watchmen and warriors, guarding holy territory from infiltration by an ultimate evil. As Douglas and Sutton (2022) remark, conspiracy theories are deeply connected to apocalyptic and millenarian movements, reinforcing a sense that hidden adversaries work tirelessly to subvert divine plans.

Religious fundamentalism often entails a literalist reading of sacred texts, a belief in the inerrancy of these texts, and a suspicion of secular authority (e.g., government institutions,

science, mainstream media). In the fundamentalist worldview, society is engaged in a moral and cosmic struggle between the forces of God and Satan. This absolute dualism dovetails with conspiracy thinking, which similarly frames reality as a hidden conflict manipulated by secret puppet masters (Barkun, in Šolc, 2019).

An environment that fosters mistrust of “worldly” institutions naturally primes believers to accept alternative accounts. When scientific findings conflict with literal scriptural interpretations, or when government policies contradict religious teachings, fundamentalists may perceive these discrepancies as evidence of a plot to undermine their faith. Conspiratorial speculation about vaccines, educational curricula, or social reforms can therefore flourish within communities already inclined to see secular authorities as malevolent or misguided.

Another structural similarity between religious fundamentalism and conspiracy theories is the quest for hidden or esoteric knowledge. Many conspiracy theories promise insider revelations that “expose” a hidden reality beneath the façade of everyday life. Religious communities with an apocalyptic bent often emphasize the “secrets” of the End Times, gleaned from careful study of sacred texts or prophecies. This dynamic can be witnessed in fundamentalist circles that focus on “reading the signs” of world events – wars, natural disasters, political alliances – in order to decode a cryptic divine timeline.

Hence, believers might be more inclined to accept complex narratives about global conspiracies precisely because these narratives mirror the promise of uncovering spiritual mysteries. As a result, conspiratorial claims about the “globalist elites,” the “Illuminati,” or satanic cabals merge with the prophecy-driven, revelation-oriented ethos prevalent in certain streams of Christian eschatology, as well as apocalyptic thinking in other religious traditions.

4.4 Religion and Conspiracy Narratives

The resonance between religion and conspiracy theories is by no means a modern development. History is replete with examples of religious groups both promoting conspiratorial claims and being targets of them.

In the early centuries of Christianity, believers lived under Roman rule and faced persecution, which naturally led many to see the Empire as conspiring against the nascent faith. This was further reinforced by apocalyptic texts such as the Book of Revelation, which vividly describes beasts, false prophets, and a final battle. Early Christians came to interpret these images in the context of their ongoing suffering, framing Roman power as the hand of a satanic force. As the Christian church transitioned into a position of power in the later Roman Empire, it inherited the apparatus for labeling dissenters as conspirators in league with demonic influences (particularly in cases of heresy accusations).

During the Protestant Reformation, conspiracy narratives were integral to the mutual hostility between Catholics and Protestants. Martin Luther's accusations of papal corruption cast the Catholic hierarchy as a secretive body manipulating theology for financial and political power. The Catholic response portrayed Protestant reformers as heretical agents of chaos threatening Christendom's unity. Both sides deployed conspiracy-laden propaganda. The intensity of these allegations precipitated wars of religion across Europe, with each camp claiming that the other was guided by clandestine diabolical agendas.

Islamic history also contains moments of deep suspicion of hidden plots, especially amid sectarian rifts (e.g., Sunni vs. Shia) and later colonial intrusions. Modern jihadist movements – Al-Qaeda, ISIS, and others – frequently depict Western governments and international alliances as conspiring to obliterate Islam from within (Sayyid Qutb's works are a notable example). These conspiratorial narratives tap into genuine grievances about imperialism, economic exploitation, and cultural hegemony; but they elevate such grievances into an all-encompassing, eschatological conflict between the “House of Islam” and the “House of War.”

Jews have historically been singled out in some of the most pernicious conspiracy theories. The *Protocols of the Elders of Zion*, a notorious forged text, purports to detail a secret Jewish plot for world domination. Despite its fraudulent origins, it has circulated widely for over a century, fueling antisemitic violence and persecution. Such narratives have often been framed in explicitly religious terms, with Jewish communities cast as the ultimate “other,” allegedly orchestrating events from behind the scenes to thwart the true faith (be it Christianity or, in certain contexts, Islamist interpretations).

Conspiracy thinking is hardly limited to mainstream or historically established faiths. New religious movements also adopt conspiratorial frameworks, often as an explanatory tool for their marginal or embattled status. For instance, the Church of Scientology has long contended that government agencies and psychiatric institutions conspire to defame and undermine it. Similarly, doomsday cults like Heaven’s Gate interpret external criticism as part of a larger cosmic conspiracy, reaffirming their sense of unique salvation against a corrupt, deceived world. The Branch Davidians, to cite another example, framed the federal siege in Waco, Texas, as a manifestation of end-times persecution predicted in Scripture.

4.5 Deep State Narratives, QAnon, and Religious Resonance

In contemporary political discourse, the term “Deep State” describes an alleged secret network of unelected bureaucrats, intelligence officers, and global elites who ostensibly control governmental policy from behind the scenes. Though the concept existed in various forms historically – referring to shadowy elements in intelligence or military structures – it has gained particular traction in the United States and abroad over the past decade.

While not necessarily rooted in any single religious tradition, Deep State narratives have found a receptive audience among religious communities – especially in certain evangelical and

fundamentalist circles – due to the overlaps in worldview. The “Deep State” is portrayed as not only morally corrupt but also as an existential threat to “traditional” Christian values, religious freedom, or biblical prophecy. This synergy emerges most clearly where watchers in these religious communities see themselves as guardians of truth, opposing a vast machine that orchestrates global events to erode national sovereignty, moral standards, and personal liberties.

QAnon is perhaps the most salient example of a contemporary conspiracy theory merging political, religious, and apocalyptic motifs. Originating on online message boards in late 2017, QAnon revolves around the cryptic posts of an anonymous figure called “Q,” who claimed to be a government insider with top-secret clearance. QAnon’s central narrative is that a cabal of satanic, pedophilic elites – often tied to prominent Democratic politicians, Hollywood figures, and billionaire philanthropists – controls global affairs and engages in unspeakable crimes. According to Q’s prophecies, former President Donald Trump (or another “righteous” figure) would eventually expose this cabal and restore justice, culminating in a near-biblical day of reckoning known as the “Storm.”

QAnon borrows heavily from Christian eschatological language, framing the struggle as one of cosmic proportions. The language of “The Great Awakening,” the repeated references to spiritual warfare, and the day of the “Storm” when all foes are unmasked, resonate with biblical end-times prophecies. For many evangelical Christians, QAnon was easily integrated into a broader worldview that places emphasis on spiritual warfare and moral absolutism.

Religious leaders in the evangelical community have sometimes referenced QAnon talking points, weaving them into sermons that identify the alleged “cabal” with demonic forces. This echoes themes from earlier conspiratorial traditions, such as the Satanic Panic of the 1980s, which likewise claimed that secret groups of Satanists were sacrificing children and infiltrating public institutions. Though a variety of denominations and religious traditions include QAnon

supporters, the fusion of QAnon with American evangelicalism has been particularly pronounced – demonstrating how conspiracy theories can adapt to and amplify existing religious narratives.

A critical dimension of QAnon’s appeal lies in its moral framing: it claims to defend innocent children against a depraved global elite. This moral emphasis resonates strongly with religious sentiments around protecting the vulnerable. In certain Christian circles, championing children’s welfare has long been imbued with spiritual overtones. Hence, QAnon’s appropriation of the slogan “Save the Children” dovetailed seamlessly with broader religious calls to defend the sanctity of life. The result was the mobilization of grassroots activism, rallies, and prayer campaigns shaped by conspiratorial beliefs.

Conspiracy theories such as the Deep State and QAnon hold significant potential for shaping social discourse and political action. They can fuel distrust of mainstream media, government agencies, and science, leading to polarization and even violence. For example, armed vigilantes have confronted individuals based on QAnon-inspired allegations, believing themselves to be part of a righteous mission. Within religious communities, these narratives can deepen an “us vs. them” mentality, in which believers see themselves as a persecuted remnant confronting a satanic world order.

Beyond the U.S., versions of QAnon and Deep State rhetoric have surfaced internationally, sometimes integrated with local religious beliefs or folk devils. The conspiratorial structure – secret elites, nefarious global plots, moral crusading – proves universally adaptable. Although the specifics might shift according to cultural or religious context, the overarching message remains: hidden forces are subverting the world, and only an awakened vanguard can stop them.

4.6 The Role of Religious Leaders in Spreading Mis/Disinformation

Religious authority figures have historically been central to the propagation of conspiracy narratives, whether consciously or unintentionally. Because they command the trust of their congregations, clergy members and prominent faith-based influencers can legitimize conspiratorial claims in the eyes of believers.

Many evangelical pastors who emphasize prophecy link current events to biblical end-times scenarios. In such sermons, politicians or cultural changes that seem hostile to conservative Christian values are recast as evidence of a satanic plot – often referencing the notion of a Deep State or shadowy cabal. This interpretive framework can reinforce conspiratorial suspicion of every shift in government policy or international cooperation (e.g., the United Nations as a steppingstone to the “New World Order”).

Religious leaders (and institutions) might sometimes deploy conspiracy theories strategically to stoke fear, unify their congregations, and marginalize dissenters. By portraying internal critics or competing denominations as conspiratorial agents, leaders can safeguard their position of authority. Historically, labeling a rival group as satanically influenced or conspiratorially funded has been a powerful rhetorical weapon. As documented in “Dark Religion and Conspiracy Theories” (Šolc, 2019) this method effectively draws boundaries around who is a true believer and who is an infiltrator, traitor, or agent of dark forces.

During the rise of QAnon in the United States, some pastors and Christian media figures integrated QAnon’s revelations into their teachings. Sermons or podcasts would retell Q “drops” (the cryptic messages allegedly posted by Q) in near-liturgical fashion, linking them to biblical symbolism. Such leaders, knowingly or not, became conduits for spreading QAnon, amplifying its sense of cosmic significance.

The ramifications were profound: members of such congregations came to see partisan political struggle as spiritual warfare, aligning religious faith with unwavering support for the political figures considered heroic within QAnon mythology. This phenomenon illustrates a broader pattern where political loyalties and religious fervor reinforce each other through conspiracy narratives, creating a potent socio-political bloc.

4.7 Dark Religion, Conspiracy Theories, and “Satanic Panic”

Scholarship on “Dark Religion” (as noted in Šolc, 2019) explores instances where religious sentiments become a conduit for extreme fear, demonization, and moral panic. Conspiratorial thinking plays a significant role in these dynamics, for it provides easily recognizable villains, typically portrayed as demonic or satanic. The infiltration narrative – where hidden forces are accused of corrupting youth, infiltrating churches, or controlling governments – serves as an emotional rallying cry.

One of the most vivid modern episodes of Dark Religion manifesting in conspiracy form was the Satanic Panic. Spurred by sensational media reports and the testimony of mental health professionals who believed in “recovered memories” of satanic ritual abuse, this panic spread across evangelical and some Catholic communities. Daycare centers, media figures, and even certain household brands were accused of covert satanic affiliations. Though these allegations were ultimately debunked and recognized by most researchers as baseless moral panic, the emotional intensity left a lasting mark on Christian subcultures. It reinforced a sense that dark, ritualistic evil was lurking just under the surface of daily life – an image that resurfaces in contemporary conspiracies involving child trafficking and pedophilic elites.

QAnon, in many ways, inherits the cultural memory of the Satanic Panic. Instead of daycare workers, it is now Hollywood celebrities or political figures who purportedly perpetrate satanic

ritual abuse. The underlying claim – that a secret network preys upon children – remains a potent moral impetus, galvanizing the faithful to fight back. For believers, QAnon becomes an extension of their spiritual warfare: a reaffirmation that society must be guarded vigilantly against infiltration by malevolent forces.

While not all religious communities fall prey to conspiracy theories, certain structural and cultural features can heighten vulnerability:

- **Absolutist or Dualistic Perspectives:** Communities that see the world in stark moral binaries – saved vs. damned, good vs. evil – may be inclined to view political or social conflicts through the lens of conspiratorial malevolence.
- **Distrust of Secular Institutions:** Fundamentalist groups often uphold the primacy of religious authority while expressing suspicion toward mainstream academia, media, or government bodies. Such distrust can foster alternative interpretive frameworks.
- **Propensity for Apocalyptic Thinking:** Religions that emphasize eschatological prophecies create an interpretive environment in which major events are scrutinized as signs of the End Times. Conspiracy theories align well with these frameworks, casting antagonists as antichrists or false prophets.
- **Group Cohesion Through Persecutory Narratives:** Conspiracy theories that depict the group as under siege can reinforce in-group solidarity. Believers rally around the notion of a heroic remnant resisting an overwhelmingly deceptive world. This dynamic can be emotionally gratifying, granting members a sense of unique mission.
- **Potential Echo Chambers:** Many religious communities maintain tightly knit communication networks – church bulletins, religious media channels, online forums – through which conspiratorial content can spread rapidly. If such networks discourage external fact-checking, dubious claims may persist unchallenged.

4.8 Consequences of Religious Conspiracism

One of the most obvious political consequences of religiously infused conspiracy theories is heightened polarization. When adherents see themselves locked in a cosmic battle with evil conspirators, compromise or dialogue becomes difficult. Opponents are no longer just mistaken – they may be viewed as satanically influenced or actively colluding with demonic forces. This kind of demonization can deepen ideological rifts, erode trust in democratic processes, and encourage sectarian conflict.

Religious conspiracism also often entails skepticism toward scientific consensus or expert recommendations – especially when such findings conflict with literal interpretations of sacred texts or challenge group authority. The result can be a wholesale rejection of mainstream science, medicine, or public health measures. This phenomenon was visible during the COVID-19 pandemic, as some communities embraced conspiratorial beliefs about vaccines or government directives, convinced that these measures were orchestrated by a hidden cabal.

When conspiracy theories gain traction among large religious constituencies, they can significantly influence policy debates. Politicians seeking support may cater to conspiratorial narratives, amplifying them for electoral advantage. Conversely, policies aimed at social welfare, education reform, or global cooperation may be stymied if enough voters perceive them as part of a sinister plot. Hence, the religio-conspiratorial nexus can shape the developments in the society significantly, including law-making outcomes, appointments in public offices, and the broader national agenda.

In its most extreme manifestations, religious conspiracism can incite vigilantism or terrorist acts. Believers who consider themselves divinely ordained to combat an evil conspiracy may resort to violence. QAnon-related vigilantism has produced real-world incidents, including

armed confrontations at places rumored to hide child-trafficking rings. More broadly, sectarian violence in global contexts often arises from or is exacerbated by conspiratorial accusations that demonize the other side as a malicious cabal.

Digital platforms have drastically changed how conspiracy theories spread and evolve. In the past, conspiratorial content circulated in niche publications, sermons, or localized gatherings. Today, it can travel instantly across social media networks, gaining new adherents through algorithms that reward sensational content. Memes and viral posts conflate religious imagery with conspiracy claims, forging powerful emotional appeals.

Algorithms designed to maximize user engagement often push individuals toward content that reinforces their existing beliefs. Within religious communities, this can further intensify insularity. Online groups and forums dedicated to prophecy, eschatology, or “Christian patriot” themes can morph into echo chambers where conspiratorial content proliferates unchecked. This self-reinforcing environment leaves little space for critical reflection or dialogue with opposing views.

Television preachers, YouTube prophets, and social media influencers have capitalized on the popularity of conspiracy themes. By offering sensational claims – often couched in spiritual language – such figures attract large audiences, thereby gaining financial support, fame, and social influence. Their platforms can shape public opinion far beyond traditional church settings, effectively blurring the line between religion, entertainment, and conspiratorial activism.

4.9 In summary

The deep entanglement of conspiracy theories and religious fundamentalism is not a new phenomenon; it has shaped religious and political landscapes for centuries. In our current era,

however, the speed and global reach of digital communication add new layers of complexity to an already volatile mix. Conspiracies that once simmered on the fringes can erupt into mainstream discourse with astonishing speed, especially when charismatic religious leaders endorse them.

From the Middle Ages to the Protestant Reformation, from the 20th-century Satanic Panic to the rise of QAnon, religiously infused conspiracy theories have captured the imagination of millions, structuring how believers interpret world events and moral duties. Sometimes these narratives revolve around prophecies of an imminent apocalypse; other times, they detail a hidden “Deep State.” In all cases, they tap into universal human yearnings for certainty, belonging, and a clear sense of good vs. evil.

Yet understanding the allure of religious conspiracy theories should not lead to fatalism or condescension. Many believers sincerely wrestle with theological questions amidst rapid social change. They may turn to conspiratorial frameworks when they feel marginalized or sense that mainstream narratives ignore legitimate concerns. Such complexity requires a careful, empathetic approach from researchers, policymakers, and religious leaders who wish to address the deeper sources of fear and mistrust.

As scholars continue to examine the confluence of religion and conspiracism, interdisciplinary collaborations – among sociologists, theologians, psychologists, historians, and communication experts – will be essential. Such research can shed light on why certain religious communities are more susceptible at particular historical moments.

Ultimately, the resilience of conspiracy theories – particularly those entwined with religious fundamentalism – reveals the power of narrative to shape human identity and communal life. While conspiracy theories often foster division, fear, and even violence, they also highlight collective yearnings for justice, moral clarity, and divine order. Addressing these yearnings constructively requires sincere engagement with the religious dimensions of conspiracy belief.

By acknowledging the real needs and anxieties that fuel conspiratorial worldviews, it may be possible to guide those energies toward more compassionate, factually grounded, and socially constructive pursuits.

5.0 Philosophical perspective

5.1 Introduction – Theories of Knowledge

There are arguably the following key main areas of philosophy that are relevant in this context: metaphysics (the examination of reality and existence); epistemology (the theory of knowledge); ethics (the study of moral principles and conduct); axiology (the analysis of value, including aesthetics and ethics); logic (the study of valid reasoning); and political philosophy (the exploration of government, justice, and social organization). The philosophy of conspiracy theories feeds to and from all these branches of philosophy. The ontological and historical is also of note. Taking metaphysics, it can be noted that following Baudrillard, digital media has created a form of Simulacrum which then constructs mediated fate (Lee, 2014). In these terms, choice in terms of media and conspiracy theory breaks down, as there is a sense of predetermination. We can parallel this with the notion that algorithms over-feed people news stories from the far right and thus confirm their bias, including conspiracy theories connected to this political paradigm. This then means that reality itself breaks down, bogus digital content being the totality of reality and then a separation occurs from the Real.

The philosophy of conspiracy theories as noted, involves the epistemic (knowledge-related) and the philosophical underpinnings of conspiracy theories involves examining if they are inherently flawed, collectively, or if they should be assessed on a case-by-case basis. While some philosophical work focuses on identifying their irrationality, a prominent perspective known as particularism argues for a case-by-case evaluation of their epistemic merit. Philosophy also explores the social functions of conspiracy beliefs, such as providing meaning, and investigates ways to address them using more philosophical and psychological insights.

In terms of the philosophy of ethics, there is a problem we can see from drawing on the ethicist Stanley Martin Hauerwas who takes the view that ethics concerns narrative and community. Taken in a blinkered fashion, this could often validate an online community whose ethics removes the rights of others, as conspiracy thinkers do for example in terms of migrants, but Hauerwas ethics step outside of this. They concern the view that social ethics is not about controlling national or world history. This seems idealistic, but other worldly. Fundamentally, conspiracy theory explains events through secret plots by powerful, often sinister, groups and verges on an overarching etymology and metaphysics. Philosophical interest in the mid-1990s grew from a general intuition that such theories were irrational, but during this period there was the rise of postmodernism where the value of individual identity and truth was emphasised as just as valid, often beyond any collectively agreed truth. Furthermore, an emphasis on ‘mere rationality’ needs challenging. Ironically, it can be argued that such over an emphasis on rationality since the Enlightenment has led to conspiracy thinking with a more appropriate language being transrationality (Lee, 2023). Philosophically, aspects of conspiracy thinking relates to mysticism which has been repressed since the Enlightenment but Annette Hill (2010) for example has argued that the recent decline in religion has caused an increase in belief in unprovable entities, but we need to keep in mind the complexities and multiplicities surrounding audience reception (Annette Hill and Peter Lunt, 2024).

The core of the philosophical debate in this instance concerns their epistemic merit (how well they are justified by evidence). Popularly, many conspiracies do really come from nuggets of reality. For example, some people were negatively impacted by the Covid-19 vaccine, but this does not confirm that the vaccine was overall harmful, or part of a plot to control people as those of a conspiracy ilk maintain. In terms of generalism, this suggests there is something inherently flawed or generally irrational about conspiracy theories, as a class of beliefs which is contentious, especially if we wish to counteract them. Particularism, pioneered by several philosophers, including Charles Pigden and Brian L. Keeley, argues that we must evaluate each

conspiracy theory individually based on its specific evidence like any other theory; here we can find traces of the work of Duns Scotus who emphasised specifics and ‘thisness’ (1987).

Some philosophers focus on pinpointing and explaining the flaws in conspiracy theories and in conspiracy theorising. Other philosophers argue that conspiracy theories have been unfairly maligned and that conspiracy theorists are not necessarily irrational. Philosophers, alongside other scholars in psychology and theology, investigate the motivations behind believing in conspiracy theories, such as the need for meaning, ego boosts, or a sense of purpose within faith communities. In terms of challenging disinformation philosophical insights can inform interventions to help people deal with conspiracy theories.

According to Nietzsche, as discussed by Thomson, few people care about the truth (Thomson, 2025). This should not shock us, if for a moment we consider human nature. Nietzsche and his followers claim people do not care about the facts; instead, most people are concerned with looking good and feeling good. The claim is that people care only about comfort, security, and power. This is quite a cynical view of human nature, and it ignores those who do look for facts and want to know the truth, but it explains the preponderance of conspiracy theories. Joseph Shieber took this Nietzschean discourse and coined the expression the Nietzsche Thesis (Thomson, 2023). This thesis concerns the following – the goal of most conversations is not actually about seeking the truth, but about self-preservation. We can see this virulently on social media. In these terms, most people accept or reject facts based not on truth, but on a calculation concerning their own wellbeing, or their own bias. This is helpful when we consider online discourses.

In the Nietzschean paradigm we accept or reject a truth only when it has pleasant, life-preserving, consequences and we are more likely to reject harmful truths. This might explain the popularity of conspiracy theories but is only part of the picture. We can understand how this philosophy could explain climate change denial. Ironically, those that deny climate change

could be those who unconsciously fear it the most – so they must totally avoid its reality just to cope. Nietzschean views are problematic when it comes to survival, because to survive we need to be able to predict dangers, rather than bury our head in the sand.

We should be careful of binary thinking (Lee, 2023). We know that doom-scrolling on social media is part of self-preservation in evolutionary terms despite this being an unfashionable way to put it. In these terms, we actively seek out what is harmful. On one level, this is quite the reverse of the Nietzsche Thesis, but not entirely. If our group is always being told the other group is bad, as in the case of conspiracies about migrants, a form of doom scrolling connected to this theme will push our conspiracy belief further, regardless of the facts. For example, nationalism needs an enemy, patriotism does not. Another influential philosophy relevant for today's conspiracy thinking is Kant who promoted an influential view concerning the moral/categorical imperative known as deontology. In this view, lying is always wrong as it takes autonomy away from those being lied to, so this has an ethical dimension.

Conspiracy theories around migrants, climate change, and vaccinations might not be framed directly as lying as such (although it might be), but we can understand the connection here in terms of hyperbolic discourse driven by ideology. Conspiracy thinkers believe we are all being lied to and thus accept a lie such as vaccines are always harmful so should be avoided. Often conspiracy thinking is framed in terms of freedoms. The constructed consent in conspiracy thinking groups can be understood in terms attention, given the story of attention is the story of our lives (Phillips, 2019, p. 10). Counterintuitively, with specific attention fixated on certain areas (conspiracy obsessions) wide attention disappears. Paradoxically, rational argument can be similarly construed as propaganda (Dutilh Novaes, 2024).

5.2 Philosophy and conspiracy and misinformation

There are several aspects to the philosophy of conspiracy and misinformation that have been misunderstood. Often this is to do with origins and where conspiracy thinking comes from. If we consider social ontology for example, drawn from criminology, we can understand that it can be due to external circumstances. This we could term the *social construction of conspiracy*. Storytelling and narratology often need a secret and for dramatic impact in the telling of the secret gets bowdlerised and more impactful (Lee, 2014). This is an important issue. Then we have the philosophy of choice. The fateful nature of this area of thinking implies that people have no choice and that beyond the everyday is often a secret organisation controlling everything. A decline in the public sphere following Habermas is not the sole reason for this.

This inevitably stems from fear of lack of control which philosophically can often be the case. People feel their lives are out of control. Today, zero hours contracts are common. Big banks were the villains of the 2008 crisis, but assets are in the hands of fund managers and much of everyday life is literally in their hands, so this is not a conspiracy (Christophers, 2023). Once we accept the validity of this, then further allied conspiracies and plots are not so farfetched. There is not the regularity and security of the past. Ironically, in these circumstances conspiracy theories function as a guiding force and belief system and it is very difficult to challenge them. Misinformation relates but is often spread deliberately by people for a reason.

The philosophy of conspiracy feeds into activism, and here in recent years the far right has been far cannier than the left at galvanizing support. For example, Stephen Yaxley-Lennon, former leader of the far-right group the English Defence League and now leader of the Unite the Kingdom movement (funded personally by owner of X, Elon Musk), and formally known as Tommy Robinson, sells branded merchandise and the more click bait he has the more profit he makes. This strategy involves creating a mediated crisis, such as being arrested, and then turning the camera on those creating the story, claiming things such as the government only allows 'official' journalists in court, and has banned juries. This garners international attention

and further funding. Like President Donald Trump, he lies about how many supporters turn up and support him at his events, but beyond those showing up he probably does have many supporters. In terms of philosophy and belief we need to ask, do these followers believe everything he says, or the basic principles? No detailed manifesto has been produced, but the essence of this form of conspiracy is that white people are being replaced by black, and people should live in fear. While this literature review focuses on the current day, this theory has been used historically at certain points throughout history. Furthermore, 'private life' following Barthes is nothing but the zone of space (and of time) where I am not an image, but instead of protecting the political right to be a subject that is the emphasis in this instance of turning into an object (Barthes, 2000, p. 15).

Conspiracy thinking also leads to excitement thinking beyond the everyday, again as in Habermas and the public sphere sense, such as in a detailed cabal for example of paedophiles out to steal your children. This is important to consider at this junction given that for Foucault, at the very heart of 'madness' is savagery (Lee, 1999). Some would associate this form of irrationality with 'madness', but that would be naïve because it dismisses its political potential.

The planning and delivery of many of these conspiracies is motivated by the economic gain to be made. Therefore, we can understand that conspiracy theory is a philosophy of negation, but to say there is no come back is just as negative. Believing in a truth beyond what people might say is today seen as being almost transgressive and controversial, but such benign thinking needs to be encouraged. In these terms we should think of the way in which the opposite of this term can be utilised. If people are not conspiring against us, we are free to make our own choices, do our own thing, and make our own mistakes. If they are, we can blame everything and everyone else for our shortcomings. The point here is if we just take every piece of news and information as the same, we will be lost, but this might be preferable to having free will.

The very existence of free will has been attacked by many philosophers, but there are choices within each limited framework.

Today social media influencers often create conspiracies or push them to attract audiences and clicks and more funding. So, conspiracy has become a lucrative tool. One can imagine a virtual stock market where conspiracies are floated, and stocks and shares are floated in these commodities. Old conspiracies, call them classics, are constantly churned around. Due to digital media these then often float into history and become part of folk lore and legend. This is then a way of rooting them in people's experience. In terms of metaphysics there is a category of conspiracies blending the human and extraterrestrial relating to cryptids. This is also an area that is good to examine. Like impossible creatures from the past, as humans believe that AI has absorbed every bit of knowledge, human imagination invents connections which are not there. The conspiracies about AI taking every job and human creation and thought are very real and should be concerning. So, we can see there are several elements to this that should concern us.

In these terms conspiracy thinking philosophy should not be contained as mad, outlandish, or even irrational but the reverse. It is a rational reaction to certain fears in a perceived hostile environment. We can learn then that this is part of the production of philosophy, it is generating a certain system of imaginative and fantastical knowledge and indicates the fertile nature of the human mind. From this we can deduce it functions like storytelling, to make stories that may appear at first fantastic, unreal. To believe the British Royal Family are lizards, that financiers are child sexual abusers, that a dark sinister force controls everything, is a deeply disturbing belief system, but probably less impactful than confronting your boss for a pay rise who might then sack you. As well as projection, we can use the term displacement and the term repression.

Allied to this is the connection to relationships and communities and alternatively alienation. One of the main benefits of religion is community or fellowship, in Buddhist terms known as

sangha. This brings the benefits of hope and knowing there is a supportive ‘family’ of love. Today many people do not feel needed or wanted but have joined online communities to feel part of a group where they do not feel judged. Any initial family dynamics are not there, so they do not feel trapped or hindered by history. There is a certain freedom then with this behaviour, applicable to fantasy and play and the ludic which can be associated with the childish ‘sandbox’ ontology of those in charge of Big Tech (Jansen, 2022). It is empowering on one level to know that this is part of the power of networked thinking. People may fear networking in person, but online, people can take on multiple identities and thrive.

Philosophically this fake identity might be more prone to racism, for example, and for hatred than what we can term the philosophy of indifference. In person, people are empirically less likely to be offensive, even if this is merely for their own safety reasons biologically. This is paramount to note, given we are social beings evolutionarily adapting to get on in communities, but physical presence is part of this. Social media does the opposite, meaning it socialises people through hate and through seeing the outgroup as inferior and stupid. There is a philosophical shift in what previously was known as common knowledge (Pinker, 2025). A non-dismissive way to examine this is to consider that trust in institutions has been eroded by real scandals, and so the cultural function of conspiracy is dissent against elites (Webb, 2024).

5.3 Beyond Theory – Political Implications

Beyond theory there are overt political implications. Conspiracies have long been a factor in political machinations, industrial strategy and any aspects of life where an advantage is sought, or an agenda is being promoted (which may be to discredit political opponents). Conspiracies are ‘a small group of people working together in secret to do something illegal or harmful’ (Cassam, 2023, p. 190). One of the most well-known conspiracies is the gunpowder plot. In 1605, a small group of men plotted to blow up the English Houses of Parliament at Westminster to kill

the King. The conspiracy became so well-known, that to this day, it is marked by bonfires and fireworks on November 5th in the UK. However, even this 'plot' has been subject to speculation that the event was a false flag operation (Fraser, 1996).

Conspiracy theories, therefore, are not always just theories. There may be some partial truths, or they may even be wholly true. It is not until they are investigated that their truth or otherwise can be established. For example, the Watergate scandal (Ervin et al., 1974) started as a conspiracy theory, widely denied and derided, until the initial burglary was investigated by two journalists, Carl Bernstein and Bob Woodward who revealed the true extent of the conspiracy (Senate Select Committee, 1972). What this indicates is that when we talk about conspiracy theories as being something fabricated, or stories created based on a collection of sometimes unrelated details or partial truth, it is important to be careful of dismissing such ideas without some investigation, even if 'indulging in the investigation of such theories is sometimes exactly what conspirators want' (Harris, 2025, p. 2881).

This approach however risks giving credence to any outlandish or maliciously developed story and can also mean that large amounts of time and resources could be spent on chasing rainbows. However, it is also important not to dismiss all of these 'theories' out of hand. In this instance, it is possible that something quite serious could be missed. As already established, some of them have some truth, for example, the conspiracy of cover up and silence surrounding the Catholic priest paedophiles and celebrity behaviours, such as Jimmy Saville and so on. So, those investigating or trying to make sense of the conspiracy theorists world, need to balance the outrageous with the plausible as 'conspiracy theories are not usually obviously inaccurate, but are generally epistemically risky' (Wimmer, 2025, p. 3).

The danger is that public perception becomes such that accusations of nefarious activities are levelled at anyone in the public eye even while the reality is that most people are not pedophiles or malicious. This rhetoric is particularly dangerous to the democratic discourse and future of

political and other institutions and whereby ‘the new conspiracism drains the sense that democratic government is legitimate without supplying any alternative standard’ (Muirhead & Rosenblum, 2019, p.34). If no one can be trusted, and everyone is malicious, then we are no longer part of a society with a consensus, but are individuals trying to navigate a hostile world, where no one and nothing can be trusted. When this includes scientists and medics, this can have a serious impact on public health and the future of scientific and technological developments as ‘If individuals do not trust communities of more traditional epistemic authorities, why would they trust communities of inquiry?’ (Harris, 2025, p. 2888). This phenomenon has already become evident in the growth of mistrust in vaccines particularly since Covid 19. This has led to a significant reduction in the take-up of vaccines and has seen a resurgence of diseases such as measles, chicken pox and rubella consequently (WHO, 2025).

It is interesting to consider what motivates the rhetoric and viewpoint of the content creators. For some, this may be due to a sense that ‘the status quo is not truly democratic and needs to be replaced by a different form of government that genuinely expresses the will of the people’ (Cassam, 2024, p. 198). For others however, there may be a protection projection, whereby the accuser is more guilty than those they accuse. This can be seen in the rhetoric from some political actors in the USA who defend the actions of abusers. For example, the religious advisor/cleric who was advising Trump on Christian values was recently found guilty of child sexual abuse (Beschizza, 2025) and yet supporters defend him, including stating that he would be forgiven by God.

One of the most striking elements of the advocates of conspiracy theories is that of a tribal, or quasi-religious belief in their own ‘in group’ goodness, and an unwillingness to consider that there may be bad actors on both sides, and especially within their own group. This tribal approach also means that those in the out group are seen as ‘other’ or less than human (Harris, 2024; Malcolm, 2023). This is particularly notable in the language used to describe Jews and

immigrants i.e. vermin, invaders, or criminals (Peels, 2025; Bailey, 2024). The dehumanising and assumption that there are malicious motivations of the ‘other’, makes it much easier to believe that they are also involved in conspiracies against the ‘good’ in-group. ‘A group narrative of strong us-them thinking can make one feel superior as a group, but a threatened superiority has been associated with ideology-based violence’ (Feddes et al., 2023, p. 16) to protect the superiority of the in-group (Miller-Idriss, 2020).

Feddes et al. (2023) conducted a systematic review of empirical research into the radicalisation process, which revealed the motivations and drivers for people believing in conspiracy theories and misinformation. Additionally, a literature review by Mahl et al. (2022) also indicated several factors that contribute to radicalisation and extremism. Factors include alienation and the perception of a lack of personal progress in life such as a good career, family, status etc. Others may be disgruntled and unhappy due to a lack of cultural and social roots; they may have mental health issues; or a poor education; they could come from deprivation or from a violent home; they may have had personal bad experiences with people in authority such as the police or teachers. Overall, the picture is often of someone who is at the fringes of society and who has some resentment and mistrust towards the mainstream. The study also found that ‘it turns out that *predominantly men* are receptive to extremist ideas and are more likely to turn to violent extremism’ (Feddes et al., 2023, emphasis in original). Whilst these findings do not exclude women from vulnerability to radicalisation and there are many examples of female extremists, but they are low in number compared to men (Feddes et al., 2023; Mahl et al., 2022; Nuraniyah, 2018).

However, alienation as noted and disconnection from societal roots do not always indicate a vulnerability to radicalisation, and extremism may be reinforced and built within communities (Harris, 2024). Terrorist acts such as by those involved in the IRA were often within close knit communities and they may have been radicalised either by a family member or friend, or in

some cases due to their person experience of injustice. As one paper puts it (Halilovic et al., 2024) children, seeing many houses being raided by police and the army to look for one dissident, accompanied by the trauma of such a raid felt by the families, may well create a home-grown extremist, and a terrorist.

Conspiracy theories can fuel individuals into acts of violence or to become radicalised where philosophies are then put into action. The theories themselves may appear to an outsider to be quite outrageous or implausible, but they may also have some elements of truth in them. This makes them difficult to challenge or disprove. They also may include reinforcement of preconceived ideas or beliefs that the individual will then internalise and so consider that the conspiracy theory may well be true because it confirms their existing beliefs (Dutilh Novaes, 2025; Harris, 2024; Cassam, 2023). In this case, it can be difficult to challenge these notions, firstly because they are very hard to disprove, and secondly, because they reinforce already strongly held beliefs. To challenge therefore is to deny a person's whole belief system, and that is often too difficult for many to deal with.

This means that when challenging or addressing conspiracy theories and the potential damage they can do to the understanding of truth and to the trust in institutions, it is also important to avoid dismissing them out of hand (Bailey, 2024; Mahl et al., 2022). Whilst it is not possible to investigate all conspiracy theories, it is important to acknowledge that many conspiracies have been uncovered and found to be true over the years, and therefore the individual who believes in them, may well be vindicated. In fact, this is often one of the defences opined by those who believe them (Wimmer, 2025).

So, how to sift through the real and the unreal, the true and the intentional lies that are evident in the online world? Trust in institutions, including fact-checkers (Malcolm, 2023) and other attempts to counter misinformation may often be met with skepticism and a belief that any form of fact checking or debunking is part of the problem and cannot be trusted (Cassam, 2023).

Psychologically, it has been shown that those who are more likely to believe in conspiracy theories and hold radical ideas, are often more likely to be authoritarian, less likely to consider alternatives to an already established (in their mind) viewpoint, and may be economically liberal, but socially conservative (Peels, 2025; Feddes et al., 2023, Cassam, 2023). Further, as many conspiracy theories are rightleaning, it is interesting to note that research has shown a correlation between conservatism, lower cognitive processing ability and adherence to authoritarian, anti-democratic beliefs. This makes conservatives more susceptible to being drawn into conspiracy theories that reinforce their existing beliefs and philosophies (Zmigrod et al., 2021). Whilst it is untrue to say that all conservatives are poorly educated, or lack cognitive skills, there is evidence of ‘greater caution in perceptual decision-making tasks and to reduced strategic information processing’ (Zmigrod et al., 2021, p. 1) whereby “conspiracy theorizing is usually explained by various cognitive rather than moral vices” (Peels, 2023, p. 892). Interestingly, those who are religious, whilst often socially conservative, have been found to be somewhat protected from radical thinking and conspiracism. It is argued that because their faith often contains requirements towards kindness, looking after the poor, weak and vulnerable, this provides some cognitive resilience to extremism (Feddes et al., 2023; Peels, 2023; Zmigrod, 2021). However, recent developments in the USA indicates a growing radical conservative religiosity, particularly within evangelical movements. Alongside this has been a significant increase in the influence of conservative Christian values in political decision-making. Interestingly, this has led to some conflict regarding ‘Christian values’ between the Pope whose background some argue is more in liberation theology, and conservative political theologians, particularly in the USA (Wells, 2025). The future of radicalised religious discourse therefore may be a further hardening and mainstreaming of ideas such as anti-immigration and anti LGBTQIA+, and a shift away from established Christian dogma of care for the poor and disadvantaged. Time will tell if this merging of religious and political power will lead to more extreme or radical policies, but the philosophy of conspiracy as outlined adds insight into this.

6.0 Psychological perspectives

6.1. Factors Affecting Conspiracy Belief Endorsement

The spread of misinformation is driven by a combination of cognitive and psychological factors that affect how individuals process, accept, and share information. Understanding these cognitive and psychological underpinnings is pivotal to understanding the appeal and persistence of conspiracy theories, which, in turn, will inform the development of strategies to combat the spread of misinformation. By addressing these underlying factors, interventions can be designed to enhance critical thinking, promote media literacy, and foster skepticism toward unverified information.

6.2. Psychological Factors

6.2.1 Epistemic motives

Douglas et al. (2017) explored the psychological factors that drive the popularity of conspiracy theories, which can be broadly categorized into epistemic, existential, and social motives. Epistemic motives driving the popularity of conspiracy theories center on the human need to understand the world, reduce uncertainty, and maintain a coherent belief system (Douglas et al., 2017). These motives include satisfying curiosity when information is unavailable, reducing confusion when conflicting information arises, and finding meaning in seemingly random events (Heider, 1958). Conspiracy theories fulfill these needs by offering speculative, internally consistent, and often complex explanations that attribute significant events to hidden actions by powerful groups (Lewandowsky et al., 2015). They help individuals cope with uncertainty, protect cherished beliefs by dismissing contradictory evidence as part of the conspiracy, and provide a sense of control in the face of randomness (Lewandowsky et al., 2013).

Conspiracy theories are particularly appealing during large-scale or significant events that leave people dissatisfied with mundane explanations (Leman & Cinnirella, 2013). They are also more attractive to individuals who habitually seek patterns and meaning, even in unrelated phenomena (Bruder et al., 2013), and to those with a heightened need for cognitive closure (Marchlewska et al., 2018). However, these theories often sacrifice accuracy and rationality for simplicity and coherence. People who lack critical thinking skills or have lower levels of education are especially vulnerable, as they may overlook the speculative and unfalsifiable nature of conspiracy theories (Swami et al., 2014; Douglas et al., 2016). While these theories may temporarily reduce uncertainty, they often fail to fully satisfy epistemic motives, as they can perpetuate misinformation and increase confusion (Jolley & Douglas, 2014a, 2014b).

One's approach to fulfilling epistemic motives is significantly shaped by their epistemic beliefs – their understanding of the nature of knowledge and knowing. Epistemic beliefs might play a critical role in shaping reasoning and susceptibility to conspiracies (Garrett & Weeks, 2017). Those with sophisticated epistemic beliefs exhibit advanced reasoning and critical thinking skills. For example, individuals with advanced epistemic beliefs constructed arguments of greater quantity, better quality, and higher diversity (social, ethical, economic, scientific, ecological) (Baytelman et al., 2020); used the epistemic standard of scientific research to evaluate information when reading (Iordanou et al., 2019) and wrote a two-sided report after reading controversial historical accounts (Iordanou et al., 2020). Individuals with more rigid epistemic beliefs, who see knowledge as fixed or unquestionable, may be more susceptible to adopting false beliefs or rejecting contradictory evidence.

6.2.2 Existential motives

Existential motives, on the other hand, refer to the human need to feel safe, secure, and in control of one's environment, which can be threatened during times of uncertainty or distress

(Douglas et al., 2017). Conspiracy theories appeal to individuals experiencing such threats by offering alternative narratives that create a sense of control and autonomy (Goertzel, 1994). Research shows that people are more likely to turn to conspiracy theories when they feel anxious (Grzesiak-Feldman, 2013), powerless (Abalakina-Paap et al., 1999), or lack sociopolitical control (Bruder et al., 2013). Experimental evidence further supports this, demonstrating that reduced control increases conspiracy belief, while affirming control decreases it (van Prooijen & Acker, 2015). However, research suggests that conspiracy theories often fail to fulfill these existential motives effectively, instead suppressing autonomy and disempowering individuals (Douglas et al., 2017). Exposure to conspiracy theories also reduces engagement in constructive actions like voting or political participation and diminishes trust in others, further deepening feelings of alienation and disempowerment (Douglas & Sutton, 2008).

6.2.3 Social motives

Social motives, as outlined by Douglas et al. (2017), relate to the need for a positive self-image and the reinforcement of group identity. Conspiracy theories appeal to these motives by elevating and glorifying the self and the in-group, often portraying them as moral and competent but sabotaged by powerful and unscrupulous out-groups (Cichocka et al., 2016). This defensive mechanism makes conspiracy theories particularly appealing to individuals or groups experiencing ostracism (Graeupner & Coman, 2017), low status (Crocker et al., 1999), or political loss (Uscinski & Parent, 2014). Belief in conspiracy theories has also been linked to prejudice against powerful groups (Imhoff & Bruder, 2014). Despite their appeal, conspiracy theories often frustrate social motives rather than satisfying them. By promoting distrust and alienation, they erode social capital and deepen feelings of disenchantment with institutions and other people (Einstein & Glick, 2015; Jolley & Douglas, 2014a). This distrust contributes to

further feelings of social isolation, undermining the sense of belonging that individuals seek through these beliefs (Douglas et al., 2017).

6.2.4 Interplay of psychological motives

Notably, these psychological motives often come into play simultaneously, meaning that individuals may be drawn to conspiracy theories for a combination of reasons, including a desire for meaning, security, and social belonging (Douglas et al., 2017). While conspiracy theories may provide psychological benefits, such as emotional reassurance and meaning-making, they also pose significant societal risks, including reduced trust in institutions, increased polarization, and the spread of misinformation (Douglas et al., 2017).

6.2.5 Personality factors

The psychological correlates of conspiratorial ideation have often been classified within the domain of personality factors, which play a significant role in the endorsement of conspiracist beliefs (Bowes et al., 2023). Narcissism (i.e., belief in one's specialness) and collective narcissism (i.e., belief in inner-group specialness) have been found to be associated with the endorsement of conspiracist ideation (Cichocka et al., 2016; Goreis & Voracek, 2019; Uscinski et al., 2022; de Zavala et al., 2009).

With regard to collective narcissism, research indicates that collective narcissism can lead individuals to endorse conspiracy theories as a means of reinforcing social identity and buffering against perceived social threats. For instance, Golec de Zavala and Lantos (2020) found that collective narcissism predicts intergroup hostility, especially when the in-group's image is threatened, suggesting that conspiracy beliefs may serve to protect the in-group's status and cohesion. Similarly, research by Cichocka et al. (2016) demonstrated that collective

narcissism is associated with increased belief in conspiracy theories, as individuals seek to defend their group's image against perceived external threats. Taken together, these findings suggest that collective narcissism fosters a sense of social belonging and offers a psychological buffer against perceived social threats through the endorsement of conspiracy theories.

Extending the findings of the two aforementioned studies, which highlight the role of narcissism in fostering intergroup hostility and conspiracy beliefs, Uscinski et al. (2022) further demonstrated that all three Dark Triad traits, namely narcissism, Machiavellianism, and psychopathy, are significantly associated with a predisposition toward conspiracy thinking. This suggests that a broad spectrum of dark personality characteristics contributes to the susceptibility to conspiratorial ideation.

Correspondingly, in their comprehensive meta-analysis, Bowes et al. (2023) identified several personality factors associated with conspiracy ideation, including heightened threat perception, intuitive thinking, antagonism, and a sense of superiority. Notably, the authors also highlight that schizotypy, paranoia, and psychoticism, all of which are traits associated with suspiciousness and odd beliefs, increase vulnerability to conspiratorial thinking. In addition, narcissistic traits, particularly a desire for uniqueness and superiority, correlate with higher conspiracy belief endorsement. The meta-analysis further emphasizes the role of unmet epistemic, existential, and social needs, such as low trust and perceived social threats, in driving conspiratorial ideation. Accordingly, both personality traits and motivational factors appear to be key drivers of conspiracy belief formation.

6.3 Cognitive Factors

6.3.1 Cognitive biases and tendencies

Cognitive factors play a central role in shaping individuals' susceptibility to conspiratorial thinking and contribute directly to the proliferation and persistence of information online. These factors include various cognitive biases and tendencies as well as reasoning styles, all of which influence how information is processed and evaluated.

Among these, confirmation bias (Modgil et al., 2021) leads individuals to interpret new information in ways that support their preexisting while dismissing contradictory perspectives. Similarly, myside bias (Diana et al., 2019) induces individuals to generate and evaluate arguments in a way that favors their own stance, increasing their resistance to corrective information and critical engagement with opposing viewpoints. These biases are further amplified by selective exposure (Winter et al., 2016), a behavioral tendency in which individuals actively seek out and engage with information that aligns with their beliefs while avoiding counterevidence, ultimately strengthening echo chambers (Quattrociocchi, 2017). Together, these cognitive tendencies create an environment where misinformation spreads easily and becomes difficult to correct.

Other cognitive biases linked to conspiratorial ideation include cognitive rigidity, the conjunction fallacy, and illusory pattern perception. Cognitive rigidity includes the inability to entertain or consider multiple viewpoints simultaneously (Kruglanski, 2004; Zmigrod et al., 2019). This biased thinking reduces the willingness to seek out evidence and hinders deep reasoning, rendering individuals more likely to endorse faulty content (Pennycook et al., 2020; Sebaló et al., 2023; Xiao et al., 2021). The conjunction fallacy, which reflects the belief that a combination of characteristics is more probable than any one characteristic alone, has been linked to conspiratorial thinking, as it encourages people to perceive complex, yet improbable, narratives as more likely than simpler explanations (Brotherton & French, 2014). Similarly, illusory pattern perception, or the tendency to perceive patterns in random noise, has been found to be associated with endorsement of conspiracy theories, as individuals susceptible to

this bias are more likely to discern connections between unrelated events and construct overarching narratives based on illusory correlations (van Prooijen et al., 2018). These biases serve epistemic motives by providing intuitive, quick explanations that reduce uncertainty, even if they are not grounded in evidence (Douglas et al., 2017). This reliance on cognitive shortcuts and intuitive reasoning further illuminates how epistemic motives contribute to the appeal of conspiracy theories (Binnendy & Pennycook, 2022). Moreover, this tendency is fueled by the fact that people often resort to intuitive, emotion-driven thinking (Pennycook & Rand, 2019), which provides a sense of coherence and structure in an often unpredictable world (Van Prooijen & Douglas, 2017). As a result, these cognitive shortcuts contribute to the persistent appeal of conspiracy theories.

6.3.2 Scientific Reasoning as a Shield Against Conspiracy Ideation

In recent years, there has been a growing interest in how scientific reasoning interacts with and can mitigate conspiracy beliefs. The extant literature on the relationship between scientific reasoning and conspiracy theories suggests that scientific reasoning skills safeguard against conspiratorial beliefs (Bao et al., 2022; Georgiou et al., 2021; Georgiou et al., 2022; Georgiou et al., 2023; O'Brien, 2023; O'Brien et al., 2025). This is the case because individuals with advanced scientific reasoning skills are adept at critically appraising information, resisting simplistic explanations that are unsubstantiated by evidence, and identifying flawed logic (Bao et al., 2022). By contrast, individuals with poor scientific reasoning skills are more likely to reject scientific evidence and accept unsupported explanations that alleviate uncertainty (Georgiou et al., 2021; Gjoneska, 2021; Marchlewska et al., 2018) in attempt to avoid the challenge of evaluating discrepancies in information (Lazer et al., 2018). Thereby, those with poor scientific reasoning skills tend to display greater receptivity to the causal explanations provided by CTs

as a way of alleviating uncertainty, avoiding cognitive dissonance, and reaching cognitive closure (Georgiou et al., 2021; Gjoneska, 2021).

6.3.3 Analytical Thinking as a Shield Against Conspiracy Ideation

A variable that has garnered significant attention within the scientific reasoning literature is analytical thinking (Küçükaydın & Ayaz, 2024), which involves skills such as analysis, evaluation, judgment, and comparison (Sternberg, 2021). Analytical thinking is intertwined with scientific reasoning (Pennycook et al., 2015), as it serves as a style of reasoning that enhances the scientific method (Georgiou et al., 2021). Together, they form a cohesive framework for evaluating evidence and drawing conclusions. Analytical thinking constitutes a key component of problem-solving, the latter of which revolves around scientific thinking processes (Robbins, 2011). Analytical thinking improves the ability to detect misinformation in online media (Pennycook et al., 2021a) by encouraging evidence-seeking behavior (Martire et al., 2023; Frederick, 2005).

6.3.3.1 Correlational Evidence on the Analytical Thinking–Conspiracy Belief Relationship

Several correlational studies have revealed a negative correlation between analytical thinking and belief in conspiracy theories (Georgiou et al., 2019; Pennycook & Rand, 2018; Ståhl & van Prooijen, 2018; Swami et al., 2014; Van der Wal et al., 2018). Individuals with strong analytical thinking skills are generally less likely to endorse conspiratorial beliefs, as they tend to evaluate information more critically by questioning unsubstantiated claims and simplistic explanations, and by seeking out evidence and logical reasoning before making inferences (Swami et al., 2014).

Pennycook and Rand (2019) focused on misinformation in examining the interplay between analytical thinking and conspiratorial beliefs. It was ascertained that analytic reasoning is negatively correlated with the perceived accuracy of misinformation and positively correlated with the ability to discern “fake news” from “real news.” In other words, the study findings suggested that an analytical thinking inclination renders individuals better able to distinguish between “fake” and fact-based news headlines. Interestingly, the increased susceptibility to belief in misinformation observed among those with a lower inclination toward analytic thinking held true regardless of whether the headlines aligned with one’s political views, downplaying the role of motivated reasoning in accounting for susceptibility to belief in fake news. Participants who were allocated to conditions that were cognitively engaging and thereby conducive to elaborative processing were more likely to reject partisan misinformation, whereas those who engaged in shallow processing, relying on cognitive shortcuts, are more susceptible to accepting partisan misinformation. These findings suggest that a lack of reasoning, i.e., inadequate cognitive effort, overrides biased reasoning in increasing susceptibility to belief in “fake news,” meaning that even individuals who are not motivated by bias may accept misinformation if they exert little cognitive effort when evaluating the information presented to them. Accordingly, the findings emphasize the importance of evoking active thinking and the deep evaluation of information as means of counteracting susceptibility to accepting misinformation.

Subsequent studies reinforced the idea of an inverse relationship between analytical thinking and COVID-19 conspiracy ideation (Erceg et al., 2022; Kantorowicz-Reznichenko et al., 2022; Pennycook et al., 2020; Stanley et al., 2021). The study by Pennycook et al. (2020) examined predictors of attitudes and misperceptions about COVID-19 in Canada, the UK, and the USA. Participants completed a battery of tests consisting of a 17-item basic science knowledge test (McPhetres & Pennycook, 2020; Miller, 2004), a 6-item Cognitive Reflection Test (Frederick, 2005) as a measure of analytic (versus intuitive) thinking, a 5-item Bullshit Receptivity test

(Pennycook et al., 2015), and a 6-item numeracy test (Cokely et al., 2012; Lipkus et al., 2001). The results showed that cognitive reflection scores were a significant predictor of reduced susceptibility to misinformation, even after controlling for other variables like political ideology, media consumption habits, and demographics. Building on the regression analysis conducted by Pennycook et al. (2020), the correlation analysis by Erceg et al. (2022) provided additional confirmation that higher cognitive reflection scores are linked to reduced susceptibility to misinformation, strengthening the consistency of these findings across different analytical approaches. Specifically, Erceg et al. (2022) implemented a one-shot intervention that was intended to assess whether enhancing analytical thinking could mitigate anxiety-related misbehavior during the pandemic. Participants who engaged in the intervention were prompted to reflect on opposing viewpoints and evidence against conspiracy theories. Cognitive reflection was measured with three Cognitive Reflection Test (CRT) items taken from currently existing versions of the Cognitive Reflection Test (Erceg et al., 2020), which the authors revised so that their content appeared to be related to COVID-19. Each of the responses was coded as correct/incorrect, and the total score was calculated as the mean of correct responses on the three items. However, while a negative relationship was found between analytical thinking and conspiracy beliefs during the COVID-19 crisis, the intervention did not lead to the anticipated reduction in these beliefs among participants. This indicates that simply encouraging individuals to consider opposing viewpoints may not be sufficient to change deeply ingrained conspiracy beliefs or misinformation. Overall, these studies complement each other in highlighting the importance of cognitive reflection in minimizing susceptibility to misinformation.

6.3.3.2 Experimental Evidence on the Analytical Thinking – Conspiracy Belief Relationship

Apart from acting as a preemptive defense against conspiracy beliefs, evidence from experimental research suggests that analytical thinking also combats the existing acceptance of these beliefs. In this regard, Swami et al. (2014) conducted a series of four studies that examined the relationship between analytic thinking and conspiracy beliefs. All studies were conducted online, with participants completing the assessments via online platforms. Study 1 employed a correlational design and examined the relationship between participants' analytic thinking, as measured by the Rational/Experiential Multimodal Inventory (REIm; Norris & Epstein, 2011), and their beliefs in conspiracy theories, measured through the Belief in Conspiracy Theories Inventory (BCTI; Swami et al., 2010). It was observed that individuals with higher levels of analytic thinking are less likely to endorse CT beliefs and more likely to exhibit skepticism toward them. In Study 2, an experimental manipulation was introduced by assigning participants to either an analytical thinking condition, where they were encouraged to think critically and logically, or an intuitive thinking condition, where they relied on gut feelings. Participants completed the same measures as in Study 1. The results showed that those in the analytical condition endorsed significantly fewer conspiracy beliefs. Study 3 aimed to replicate these findings with a new sample, using the same measures. The results confirmed that greater analytic thinking was associated with weaker belief in conspiracy theories. Study 4 aimed to expand on these findings by incorporating an additional measure focused on a specific conspiracy theory (related to the July 7, 2005, bombings in London), as opposed to the previous experiments that focused on general beliefs in conspiracy theories rather than specific instances. Overall, the three experimental manipulations resulted in a reduction in the endorsement of conspiracy theories, thereby implicating a causal relationship. The authors argued that the mechanism underlying this causal relationship is that analytic thinking lends itself to a rigorous evaluation of information, enabling individuals to critically evaluate and dismiss conspiracy narratives. Thus, the study substantiates the idea that increased analytic thinking directly contributes to reduced acceptance of such beliefs.

Similar results were obtained by an experimental study that investigated whether an intervention with a scientific reasoning orientation could reduce conspiracy theory beliefs (Georgiou et al., 2023). A randomized controlled trial was employed, and the study was conducted online with a total of 700 individuals who were randomly assigned to either a control group or an intervention group. Participants in the intervention group received a four-week training program intended to promote the use of scientific reasoning skills against conspiracy theory beliefs and were assessed on their conspiracy theory beliefs and scientific reasoning abilities both before the intervention and after its completion. The results indicated that participants who underwent the intervention exhibited significantly lower conspiracy theory belief endorsement post intervention than the control group, indicating that enhancing scientific reasoning can combat conspiracy theory beliefs.

Beyond direct interventions designed to enhance scientific reasoning, other experimental approaches have sought to promote deliberate and reflective information processing to reduce susceptibility to misinformation. Pennycook et al. (2024) investigated whether psychological inoculation and accuracy prompts, both of which encourage individuals to engage in more careful evaluation of information, could improve accuracy discernment. In their study, participants were exposed to accuracy prompts, which reminded them to consider the accuracy of information before engaging with it, and psychological inoculation, which preemptively warned them about misinformation tactics. Their findings suggest that prompting individuals to reflect on accuracy facilitates a more deliberative cognitive process, i.e., analytical thinking, reinforcing the idea that interventions promoting such thinking can help counter misinformation and related beliefs, including conspiracy theories. Concurrently, these results point to the synergy between popular misinformation interventions, demonstrating that combining strategies like psychological inoculation and accuracy prompts is more effective than using either approach alone (Pennycook et al. 2024).

In line with this, recent research by Costello et al. (2024) explored a novel intervention using AI driven dialogues to challenge conspiracy beliefs. In their study, 2,190 who endorsed conspiracy theories engaged in personalized, evidence-based conversations with an AI model (GPT-4 Turbo), designed to prompt participants to critically evaluate their conspiracy beliefs by engaging with evidence-based counterarguments. The intervention resulted in an average reduction of about 20% in conspiracy beliefs, with effects lasting for at least two months. Thus, the study provides experimental evidence that interventions engaging individuals in analytical, reflective reasoning processes hold promise in durably reducing conspiracy beliefs.

6.3.3.3 The Analytical Thinking Paradox

The evidence regarding the direction of the association between analytical thinking and conspiratorial belief endorsement is inconsistent. One study that yielded contradictory evidence to the previously described studies is that by Georgiou et al. (2021), which examined the interrelationships between conspiratorial beliefs, scientific reasoning, and belief flexibility. While a negative correlation between scientific reasoning skills and the endorsement of conspiratorial beliefs was found, a positive correlation emerged between analytical thinking skills and conspiratorial belief endorsement. The latter association was explained as partly attributable to the behavioral tendencies that coincide with analytical thinking, namely rigorous information seeking behavior and specific information-seeking behavior, both of which positively correlate with conspiratorial belief acceptance. These findings imply that analytical thinking does not necessarily go hand in hand with the critical appraisal of information (Ståhl & van Prooijen, 2021) and avoidance of engagement with conspiratorial content (Van Prooijen et al., 2018). Rather, individuals who possess strong analytical skills may exhibit partisan biases.

Correspondingly, recent work has provided contradictory evidence to Swami et al.'s findings, thereby challenging the original conclusions. The study by Večkalov et al. (2024) conducted high-powered direct replications of two experiments from Swami et al. (2014) to assess whether priming analytic thinking reduces belief in conspiracy theories. Their findings indicated no significant effect on analytical thinking primes on decreasing conspiracy beliefs, suggesting that such interventions may not be effective in altering these beliefs. This challenges previous assertions that promoting analytical thinking can mitigate conspiracy theory endorsement.

The phenomenon wherein analytical thinking does not consistently protect against conspiracy ideation can largely be explained by the “analytical thinking paradox” (Georgiou et al., 2021). The “analytical thinking paradox” refers to the observation that, despite the anticipation that analytical thinking would reduce belief in conspiracy theories, individuals who engage in analytical processing can still endorse such beliefs (Georgiou et al., 2021). This paradox arises because conspiracy theories often present intricate, seemingly logical narratives that appeal to analytically minded individuals seeking coherent explanations for complex events (Georgiou et al., 2021). Thus, even individuals with strong analytical abilities may be vulnerable to conspiratorial thinking if the presented narratives resonate with their cognitive biases or prior beliefs (Georgiou et al., 2021). Accordingly, those who are analytically inclined may apply selective reasoning to rationalize conspiratorial content instead of critically evaluating it (Georgiou et al., 2021). However, it is worth noting that the sample in Georgiou et al.'s (2021) study consisted of individuals with varying levels of autistic traits, and there are known differences in cognitive processing, social reasoning, and analytical thinking between neurodivergent and neurotypical individuals; therefore, the findings may not be generalizable to neurotypical individuals. The notion that analytical thinking can inadvertently promote conspiracist ideation is also supported by other studies (Imhoff & Bruder, 2014; Stojanov & Halberstadt, 2020).

6.3.3.4 Interplay Between Cognitive Processes and Individual Differences

A possible explanation for this could be that the positive effects of analytical thinking may not uniformly extend across all content types, including conspiratorial beliefs. This insight emerges from the study by Georgiou et al. (2022), which found that while analytical thinking is generally associated with reduced belief in conspiracy theories, this relationship is not clear-cut, and analytical thinking alone does not necessarily diminish such beliefs. Their research suggests that individual differences, such as schizotypy and autistic traits, as well as cognitive flexibility – the ability to switch between thinking about different concepts or to think about multiple concepts simultaneously – play significant roles in influencing belief in conspiracies. Therefore, enhancing analytical thinking alone may not be sufficient to counteract the complex psychological and social mechanisms that sustain conspiracy ideation; rather, addressing conspiracy beliefs effectively requires a multifaceted approach that considers these personal variations. Similarly, an experimental study by Bago et al. (2022), who investigated the impact of deliberative thinking on conspiracy beliefs, found that encouraging deliberation did not significantly affect beliefs in well-established conspiracies; however, for less familiar conspiracy theories, deliberation improved belief accuracy, particularly among individuals with strong pre-existing “anti-conspiracy” or “pro-conspiracy” dispositions. In another study, Spasovski et al. (2021) examined the link between illusory pattern perception and conspiracy beliefs during the COVID-19 pandemic. They discovered that while illusory pattern perception correlated with general conspiracy beliefs, it did not significantly relate to COVID-19-specific conspiracy beliefs. Collectively, these studies underscore the intricate interplay between cognitive processes and individual differences in shaping conspiracy beliefs.

6.4 Psychological Factors vs. Cognitive Factors

While the prominent role of scientific reasoning in shaping vulnerability to conspiracy theories is evident, recent evidence suggests that the influence of psychological factors may supersede that of cognitive abilities like strong reasoning skills when it comes to accepting or embracing conspiracy narratives. For example, a study by O'Brien et al. (2025) ascertained that one's level of ambiguity tolerance (i.e., the tendency to view uncertain situations as appealing) moderated the relationship between belief in a just world (i.e., a longing for fairness) and conspiracy theory endorsement. In other words, those with low ambiguity tolerance and strong belief in a just world seemed to be more likely to resist conspiracy theories. Conversely, scientific reasoning did not moderate this relationship in that the negative association between belief in a just world and conspiracy theory endorsement was not amplified by the ability to reason scientifically. Taken together, these findings point to the strong influence of psychological factors, namely how individuals manage uncertainty, on the endorsement of conspiracy beliefs, surpassing that of cognitive factors like scientific reasoning, and that the mere possession of scientific reasoning skills may not suffice to counter the influence of deeply ingrained beliefs or the comfort derived from conspiracy explanations.

7.0 Legal perspectives

From a constitutional point of view, the issue of possibly countering the spread of misinformation, extreme discourse, and conspiracy theories intercepts the essence of Böckenförde's paradox that "The secularized liberal State lives on assumptions that it cannot guarantee" (Pollicino, 2007). Intervention to clean up the infosphere of misinformation and polarized content requires the adoption of a series of limitations that risk placing limits on one of the most important freedoms of a liberal State, the right to speech, thus generating a paradox.

The relationship between law, misinformation and conspiracy theories can be complex and multifaceted. While law is a normative system that seeks to regulate society and ensure order, conspiracy theories are concepts that claim that certain events are the result of secret or malevolent conspiracies. Scientific doctrine, in the context of law, is based on rational, evidence-based analysis. Whereas conspiracy theories often lack a solid empirical basis and are supported by speculation, distorted interpretations of facts or unverifiable testimony, scientific doctrine focuses on the objective evaluation of evidence and the search for truth.

The relationship between law, misinformation, extreme content and conspiracy theories is complex and requires a balance between the right to freedom of expression and the protection of the public from misleading or harmful behaviour. The law can intervene when such content leads to unlawful behaviour, but, in general, countering such phenomena requires a multifactorial approach involving education, accurate information and open dialogue. Scientific doctrine plays a crucial role in the evaluation of evidence in the legal context and can help counter misinformation and conspiracy theories by providing a rational, evidence-centred basis for evaluating claims.

This section focuses on three main topics: freedom of expression, the relationship between misinformation and Artificial Intelligence and the role and responsibilities of Internet service providers.

7.1 Freedom of Expression

The legal framework of Western democracies is particularly sensitive to the phenomenon of misinformation, propaganda, extremism and conspiracy theories. The European constitutional and regulatory framework was structured in a context that was totally different from today's landscape, at a time when technological development and available digital tools were still a long way off and requirements were far removed from the difficulties that citizens must face today. The European approach, based on the American matrix, protects the free formation of personal opinions, which are confronted in a 'free market' of ideas (Ziccardi, 2019), giving ample space for the free circulation of thoughts and content, with the only limitation being respect for the fundamental rights of the individual, in order to guarantee a healthy information environment free of discrimination. It is precisely this freedom that makes Western democracies an attractive target and incites instances of misinformation and propaganda interfering with democracy by altering public debate.

The emergence of digital platforms marked the beginning of a new era for the public sphere (Habermas, 1991). The post-modern reality is characterised by social, economic, political and existential uncertainties and hybrid, often immaterial or invisible, threats. The fragility of the hierarchical structures of knowledge transmission has bequeathed a sense of mistrust, the culture of relativism and what is called the 'post-truth era': the culture of knowledge has been replaced by a culture of risks (Bayer et al., 2019). Even though the digital evolution has involved users previously underrepresented by the traditional media, the system, in fact, currently supports the interests of an elite that looks primarily – and perhaps exclusively – to business.

The impact of misinformation, extremism and conspiracy theories affects data protection, privacy and human dignity, on the one hand, and freedom of expression and being informed, on the other. The basis of democracy is the open public debate that requires a harmony between media freedom, the right to be properly informed and freedom of expression. The risk, which becomes more and more concrete in such an open and digitised space, is that the volume of information often complicates access to reliable and verified content. The ability of each user to be both receiver and possible author of information, sometimes, does not allow the juxtaposition of an efficient filter and control, thus risking undermining the stability of the democratic system.

European law provides for a rather limited and deficient strategy regarding the approach to misinformation and fake news due to the temporal aspect of the phenomenon, which often has a reasonably short life cycle. In individual legal systems, it is possible to find rules that protect misinformation across the board, in the case, for example, of the principle of direct damage, in the case of false, overstated or tendentious news that is liable to disturb public order or cause alarm. Or in the case of the offence of defamation, specifically in the form of direct damage to reputation, where the injury caused is of immediate perception. This is conduct that can be carried out by any person and in different ways, with many European legal systems providing for an aggravated form if the offence is conveyed online.

Sometimes the phenomenon of fake news concerns a broader and more complex project, also contributing in the long term to a substantial change in the perception and opinion of the victim-subjects. One only has to think of conspiracy theories, cases in which fake news is used as a strategy to manipulate groups of people with the aim of polarising an ideology, which often has no foundation. From this perspective, the phenomenon could perhaps be framed as a true hybrid threat and as part of the ‘information war’, thus providing a more consolidated frame of reference and filling the gaps. The relationship between freedom of expression, misinformation

and conspiracy theories is a complex issue that raises several legal and ethical questions. Freedom of expression in the European Union is a fundamental principle enshrined in the Charter of Fundamental Rights of the European Union. Article 11 of the Charter states that ‘everyone has the right to freedom of expression’, which means that everyone has the right to express their opinions, ideas and beliefs without unjustified interference by public authorities.

The right of expression in the EU covers a wide range of forms of communication, including freedom of speech, freedom of information, freedom of the press and freedom of the media. This right is one of the main pillars of democracy and European values and is enshrined in the most evolved mindsets as the combination of ‘freedom of expression’ and ‘democracy’, as it enshrines the right of citizens to express their opinions and ideas without government interference or undue restrictions. It is considered essential to foster open and pluralistic public debate, allow democratic participation and promote diversity of opinion. The main challenge in the context of the right of expression is to strike a balance between protecting this fundamental right and dealing with the potential negative consequences of misinformation and conspiracy theories: while it is important to guarantee freedom of expression, there are situations where conspiracy theories may cause tangible harm or raise concerns for public safety and the well-being of society.

Freedom of expression is not an absolute right: the Court of Justice of the European Union and the European Court of Human Rights played a significant role in defining the boundaries of the right of expression in the EU, developing jurisprudence that balances the right of expression with other legitimate needs, ensuring that restrictions are applied in a manner consistent with democratic principles and human rights. Striking a balance requires a considered approach that considers fundamental rights, scientific evidence, education and the public interest.

The development of a new digital dimension and the spread of new channels of communication led to the rise of a true technological identity. Users, the holders of what is known as digital

citizenship, are the bearers of new rights, ranging from participation, information and interaction to new duties, designed to guarantee the security of users themselves, the protection of their data and the set of principles and values underpinning the main human rights Charters. In 2015, the new text of the Declaration of Rights on the Internet was drafted by the Commission on Internet Rights and Duties. The Charter represents the tool for building citizenship in the age of the Internet of Things and it is a fundamental instrument since without citizenship there is no democracy. It was the object of numerous consultations, and its main goal is to rebalance rights by laying the foundations of an ever-changing reality, recognising the freedom, equality, dignity and diversity of each person, promoting innovation, growth and fair competition within a global context.

Article 1 of the Declaration guarantees the fundamental rights of every person and one of the passages, that created not a few controversies within the digital space, is precisely that relating to freedom of expression, provided, as we have seen, in Article 11 of the Charter of Fundamental Rights of the European Union and Article 10 of the ECHR.

The internet is considered as a borderless reality that allows for the existence of an ideally more liberal and free society, and it is from this perspective that the greatest effort must be made, so that the full exercise of all rights can be guaranteed. Freedom of speech stems from the need to allow everyone to express their ideas without any pre-conceptual veto. This fundamental claim, which goes well with democratic ideals, is declined, on the web, in an almost exponential way since all social profiles, by definition, are created at the same level of notoriety and potentially have the same media resonance. The problems generated by a society with these premises are many: starting from the consideration of a new world in which the weight of words loses its meaning, since the statements of a leader of a State can potentially have the same audience and resonance as those of an ordinary person. This starting point begins to blur the contours of

a far more multifaceted right of expression in the digital sphere, which inevitably takes on negative implications, impossible to foresee initially.

Another problem that arises and on which it is inevitable to dwell is the role of users, who hold a dual position: on the one hand, they are the recipients of an excessive amount of information, on the other hand, they may represent the source itself. It is inevitable that this gives rise to an unstoppable flow of content and information accessible to all, which, while representing one of the secrets of the success of these platforms, is also one of its greatest flaws. However, the Internet is not a paradise for freedom of expression worldwide.

In Europe, the digital platforms are not subject to government control, therefore, it is the companies, owners of the content and data flows, that hold the power. Here, the freedom of speech, the right of access and the protection of anonymity provided for by the Declaration are fully guaranteed, allowing subjects to express their personalities within society. The social phenomenon had the merit of connecting the entire world and shortening distances by making them just a click away, but this sudden change has brought different cultures and traditions of peoples and States that have found themselves living together within the same platform. The difficulty lies, precisely, in accommodating these diversities by allowing a more gradual adaptation of different cultures to a world without borders, which undoubtedly represents the future of humanity.

In a world where the makers of news are also their own users and vice versa, the users are at the mercy of billions of pieces of information at any given moment. This enormous mass of news, that invades and pervades everyday life, leaves no space for careful evaluation or contradiction and, on the one hand, this is all instrumental in providing information that is often hasty and incomplete information, while on the other, it generates a feeling of rejection and apathy in the web population. Although the welter of content makes one think of more varied and complete information, it often has the opposite effect, generating misinformation and

distrust in the information media. This mechanism has created important consequences in people's daily lives, in the political scenario and in national security. Although at first glance they seem very distant, in a world in which we are all connected, the consciousness of an entire community – perhaps – resides on the web.

The problem of the right of expression shows the various governments approach the new difficulties, often trudging along and leaving space for the Tech companies, which do not struggle to fill the void left by legislative norms, thus becoming the true guarantors of the rules of the new world. Humanity, therefore, finds itself in a situation where two opposing forces try to take control of a new reality in which people are looking for references and new rules to follow and rely on. The key word is 'balance'. The balance that needs to be found between institutions and companies that allow for regulation that protects users and encourages, at the same time, the economy, offering everyone certainties and eliminating pretexts.

7.2 The relationship between misinformation and Artificial Intelligence

The need to regulate the development and use of artificial intelligence to manage a world that, in the near future, will live on artificial intelligence is evident. Large Generative AI Models (LGAIM) are revolutionising the way an individual works, communicates, approaches and visualises new content, spanning different sectors of society, from medicine to business planning, from education to research, from communication to the liberal professions and public services. Such systems can offer enormous potential, contributing to a more effective and potentially fairer allocation of resources, while also entailing significant risks. Due to their design and capacity, LGAIMs (e.g., ChatGPT, Stable Diffusion, Synthesia, MusicalLM) (Hacker, Engel & Mauer, 2023) and artificial intelligence chatbots can engage in the large-scale dissemination of false narratives, inducing unsuspecting individuals to believe in and share inaccurate information.

In recent years, end-to-end neural conversational agents have greatly improved their ability to conduct efficient conversations with humans. However, such models are generally trained on large amounts of data from internet and can learn and be implemented on the basis of toxic behaviour or extreme and harmful stances (Bergman et al., 2022). As seen in the previous sections, misinformation has the potential to undermine trust, exacerbate social and political divisions and – even – incite acts of violence. From a legal and regulatory perspective, it is of considerable interest to study possible policy proposals for content moderation in LGAIM, due to their versatility and wide range of applications. It is pragmatically accepted that the models used for regulation should be as flexible as possible to allow greater freedom and innovation for users.

Some believe that AI can solve the problems it creates by using automatic content filtering systems (through a combination of AI tools, developer and user intervention and a set of rules) that can identify harmful content and provide a means for effective self- regulation and co-regulation by platforms (Abdikhakimov, 2023). However, AI algorithms may not be the only way to regulate consensus in the future as their accuracy is limited, especially for expressions where cultural or contextual input are needed. Others argue that the answer to the problems of misinformation on LGAIM can be found through the implementation of transparency obligations and specific mechanisms that could be made mandatory by regulators, such as trustworthy flags indicating potentially problematic content according to different categories (hate, violence, gender, etc.) and/or external audits and evaluations (Kertysova, 2020).

The debate focuses on identifying the most appropriate legislation to directly address the risks posed by these technologies. Some (Hacker, 2022) believe that the regulation of LGAIM risks should generally focus on the applications of these technologies, rather than on the pre-trained model, through technology-neutral laws aimed at addressing critical issues more effectively and focused on three levels of obligations. First, it notes the analysis of minimum standards for

all LGAIM, secondly, it defines high-risk obligations for high-risk use cases, and finally, it envisages collaboration along the AI value chain, including obligations on transparency, risk management and content moderation rules (Hacker, Engel & Mauer, 2023).

According to this orientation, the specific regulation risks becoming obsolete even before, or immediately after, its implementation, given the changing nature of these technologies (Hacker, Engel & Mauer, 2023). It remains essential, in any case, to distinguish between LGAIM developers who pre-train the models; distributors who optimise them for specific use cases; professional and non-professional users who generate the output; and the final recipients of the services. In this way, it is possible to effectively analyse the most appropriate regulatory obligations according to the different actors involved, opting for a greater focus on the generation phase – anticipating or mitigating risk – or on the subsequent implementation phase.

Regulators and legislators need to act quickly to keep up with the unconstrained dynamics of AI models, updating regulation and striking the right balance between promoting innovation and safeguarding against potential harm, thus creating a level playing field for the development and deployment of future AI models within European borders and overseas. Given these premises, it is evident how the limitations of these technologies in recognising the digital pollution of the infosphere are emerging and, through an important renewal and adaptation activity, it is necessary to define a solid and updated regulatory framework.

The year 2023 is the year in which legislators were able to agree on a vision and set a strategy, 2024 will be, probably, the year in which policies will start to turn into concrete actions. It is fundamental for law to establish definitions, procedures and results that can be comprehensible and acceptable for the integrity of the system. It is the task of law to provide the principles based on which laws and regulations can be adopted. The United States, China and Europe, albeit with different approaches and strategies, are the main players on the global

scene dominating the race for technological supremacy. The United States was the first country to implement a strategic plan for research and development of AI technologies, with the intention of minimising government interference. China has set itself the goal of becoming a world leader by 2030, while keeping political control and decision-making power in the hands of the State. Finally, the European Union, although from a research and development point of view it is at a distinct disadvantage, represents a model of guarantee aimed at ensuring that the development of AI technologies does not harm fundamental rights, democracy, the rule of law and environmental sustainability (Pisanelli, 2022).

The United States is attempting to promote and develop regulation that demands greater transparency and new standards in each area in which AI plays an important role. The executive order issued by President Biden envisages a series of initiatives and procedures aimed at building a system that, on the one hand, allows for the safe and controlled development of such technologies and, on the other, protects citizens by assessing and mitigating risks in the use of AI. The next few months will be a great challenge for the American landscape: in fact, the presidential elections are expected to influence much of the political debate on the use of generative artificial intelligence, the management of misinformation and the viralisation of polarised content on social media platforms, and the regulation and prevention of the harms and risks that such technologies can generate, globally.

Chinese regulation was initially fragmented, having preferred ad hoc legislative acts for algorithmic recommendation services, deepfake and generative artificial intelligence. The Chinese effort, in recent months, is turning to the definition of a unified regulatory framework aimed at guaranteeing an efficient algorithm training phase, a careful selection of data sets and respect for privacy and intellectual property. Whilst it seems to be in line with the European approach, the drive to control information and a surrender of civil rights to social control by the authority, following the model of Chinese socialism, is strongly evident. China has been very

responsive to the development of new technologies; it was, in fact, the first Country in the world to introduce legislation on generative artificial intelligence a few months after the ChatGPT breakthrough.

The European Union is working on several fronts to try to effectively regulate artificial intelligence systems with specific instruments (Artificial Intelligence Act, Artificial Intelligence Directive, Product Liability Directive, Digital Services Act and Digital Markets Act). The EU AI Act (Regulation (EU) 2024/1689), effective August 1, 2024, the Artificial Intelligence Act, aims to ensure that AI systems placed on the European market and used in the EU are safe and respect the fundamental rights and values of the EU, stimulating innovation and the uptake of artificial intelligence across Europe in full respect of citizens' rights and freedoms.

The purpose of the regulation is to improve the functioning of the internal market by establishing a uniform legal framework regarding the development, marketing and use of artificial intelligence in accordance with EU values. The regulation aims to pursue several imperative initiatives in the public interest, such as a high level of protection of health, safety and fundamental rights, and ensures the free movement of AI-based goods and services across borders, thus preventing Member States from imposing restrictions on the development, marketing and use of AI systems. This legislation contributes to the Union's goal of being a world leader in the development of safe, reliable and ethical artificial intelligence, as stated by the European Council (EUCO 13/20, 2020), and ensures the protection of ethical principles as specifically requested by the European Parliament (2020/2012(INL)). Particular attention is paid to models and applications that are deemed to pose a 'high risk' to fundamental rights, such as those intended for use in areas such as health care, education, or the ban on the creation of facial recognition databases (such as those of Clearview AI) or in relation to the use of emotion recognition technology at work or in schools. The AI ACT confronts AI's dual-edged role in exacerbating digital pollution through generative models prone to hallucinations and biases.

Prohibited practices, such as real-time remote biometric identification in public spaces or untargeted facial data scraping, took immediate effect, while current transparency mandates for general-purpose AI (GPAI) systems, like large language models, require disclosing training data summaries to preempt misinformation cascades. Systemic-risk GPAI models exceeding 10^{25} Floating Point Operations per Second (FLOPs) face rigorous evaluations and incident reporting, dovetailing with DSA duties for platforms hosting AI outputs. Looking ahead, post-market monitoring guidelines arrive by February 2, 2026, high-risk systems (e.g., emotion recognition or biometric categorization) undergo conformity assessments from August 2026, and full enforcement, including national sandboxes and the EU AI Board, solidifies by August 2027. The AI Act is aimed at companies requiring greater transparency regarding the method of training and development of models and systems, in order to minimise risks and biases.

7.3 The role and responsibilities of Internet Service Providers

The creation and dissemination of conspiracy theories, today, finds new life in digital technologies, which are able to spread messages in immediate and pervasive ways. Digital technologies remove territorial boundaries, thus making it possible to convey messages with a speed and diffusion unknown in the past. Conspiracy theories are often based on or found in fake news, which thus contribute to the dissemination or, even, may convey messages with clearly defamatory content. Only the correctly informed citizen can fully exercise popular sovereignty (Judgment no. 16236, Italian Supreme Court July 9, 2010).

Information has become a defining aspect of people's and companies' lives, and this makes the race for innovation a real information war, in which the most powerful weapon is the Internet. Information and telecommunications have become the gold mines of the world's superpowers who, in addition to increasing their economic empire, create for themselves a window into every aspect of everyday life. There is a new domain beyond land, sea, sky and space that runs

parallel to cyber: it is the power of information and the use of mass media. It is a fundamental battlefield for understanding the dynamics of the world and, above all, also for understanding the importance of certain international investigations and clashes (Welch, 2011).

In such a context, information is available to everyone and this massification has generated requirements in terms of form and content that are very different from the previous ones. Society adapted to this radical change by favouring speed and ease in finding news rather than the reliability of sources, striking a heavy blow to the intricate traditional journalistic network. Another key step in this evolution, which marked the history of computerised popularisation as we know it, is economics, which helped to disrupt the journalistic network that was based on a secure and tangible market. In this fertile ground, the results of the perennial hurry and the free creation and dissemination of information, extremely varied movements, theories and beliefs are born, dividing the people of the internet into millions of groups that identify with an idea, and relying on a particular source of information.

Fake news, denialism, and online extremism are just some of the phenomena generated by the digitalisation of information, which in its best merit, that of being accessible to all, also finds its greatest flaw, in that its regulation is often complicated and controversial. The growing use of mass media raises the possibility of exposure to information, but the worrying aspect that emerges is that access to algorithmic sources favours the filter bubble, and a superficial and not very varied consumption of news, thus increasing the risk of misinformation and polarisation, with obvious repercussions on the spread of radicalised positions.

This condition generates a limited vision; the user no longer perceives reality in its complexity but interacts with content identified, based only on their preferences, ideologies and interests. The filter bubble, in reality, is not the goal that companies pursue, it is the effect of customisation that big tech and social networks operate on users. It is evident that the big tech giants hold the reins of citizens' lives, influencing preferences and manipulating choices. And

this scenario, at times, can appear alarming. It therefore seems necessary to reflect on the role and responsibilities of the platforms where these messages are conveyed, starting the legal reflection from the regulatory framework outlined by the European Union.

The first organic regulation of the responsibilities of Internet Service Providers (ISPs) of a community type dates back more than two decades ago, with Directive No. 31/2000/EC (the so-called E-commerce Directive), later updated by the more recent Digital Service Act Regulation. In a context of strong growth of digital media, at the beginning of the 2000s the need for a regulation defining the obligations and responsibilities of Internet Service Providers (ISP) in the event of dissemination of illicit content generated by their users was felt by many. In fact, if there seems to be no doubt that if the unlawful act is carried out directly by the ISP, the latter must be held liable, the case of unlawful contents generated by users who use the services made available by the ISP is more complex, thus leading to the question of whether the latter should have an obligation to supervise the contents that are conveyed through its services, even if generated by third parties. This issue is still debated among commentators and has led European case law to rule on the matter on several occasions.

Following the outline of the text of the Directive, it is necessary to distinguish ISPs into three categories, according to the services offered, since the liability regime identified for each of them is modulated precisely because of the actual role they play in conveying potentially harmful messages to third party users. The Community legislation, after having made a necessary categorisation of the subjects involved, given the breadth of the category of services offered, rather than attributing specific responsibilities, identifies exemption criteria and exceptions to the general liability provision. It appears evident, therefore, that the European legislator has based the regulation of this sector on the principle of neutrality, according to which, therefore, the provider of digital services is not held liable for any offences committed

by third parties (the illicit content generated by its users), under certain conditions, since the directive does not provide for a general obligation of surveillance by ISPs.

It is therefore possible to identify service providers (mere conduits) that merely provide access to a network or transmit on that network the information provided by the user (e.g. e-mail service providers); service providers that allow temporary storage of the data (caching) provided by users; and, finally, service providers that provide permanent storage of the data (hosting) of users data. Providers of conduit services that have limited themselves to technical and automated activities will not be liable if unlawful content is transmitted by users. Indeed, the legislation provides that they are exempt from liability if they have not originated the information, selected the recipient of the transmission, or chosen or modified the transmitted information.

Caching service providers, on the other hand are exempt from liability if they have not modified the transmitted information, confirmed the conditions of access to the information, complied with the rules for updating the information, and do not interfere with the legitimate use of technology used in the industry to obtain data on the use of the information, act abruptly to remove the stored information or disable access to it once they realise that such information has been removed from where it was initially located on the network or that access has been disabled or that a judicial body has ordered its removal or disabling.

Finally, more stringent exemption criteria are provided for hosting services, precisely because of the role played by the provider to the point of identifying a real obligation to act aimed at stopping unlawful activities carried out by users. In fact, the legislator provides that they may be exempt from liability if they are not actually aware of the fact that the content conveyed by the user is unlawful, and are not aware of facts or circumstances that make the unlawfulness of the activity or information manifest, and if they act immediately to remove the information or disable access to it as soon as they are informed of its unlawful nature by the competent

authorities. It therefore seems clear that the distinction is precisely the nature of the service provided by the ISP, the more they can be considered active, thus guaranteeing services that are not limited to being of an eminently technical nature, and therefore not limited to guaranteeing a neutral provision of the service, the more it will be called upon to pay attention and intervene promptly to prevent the dissemination of illicit content generated by its users. Given the growing need for stricter control aimed at limiting the dissemination of illegal content, following the guidelines of the European Union, service providers have introduced a Notice and Take Down system for the benefit of those involved. In fact, it is foreseen that the person concerned notifies the content considered harmful so that the provider removes the illicit content and no longer allows its reproduction and dissemination.

With the recent Digital Service Act, the European legislator has provided for even more stringent obligations for platforms, modulating their intensity according to the type of service offered and the number of users (a subdivision into four categories of platforms is envisaged), with the declared aim of discouraging the dissemination of illegal content in a more incisive manner.

Since the full enforcement of the Digital Services Act (DSA, Regulation (EU) 2022/2065) in February 2024, the European Union has markedly intensified its efforts to curb online harms such as the unchecked spread of misinformation and conspiracy theories. Obligations under the DSA are calibrated to platform scale: while smaller intermediaries focus on enhanced reporting requirements, very large online platforms (VLOPs) – those serving more than 45 million users, including Meta and X - must undertake annual systemic risk assessments. These evaluations zero in on critical vectors like algorithmic amplification, fake accounts, and deepfakes that can severely distort public discourse and democratic processes.

Enforcement has transitioned from principle to practice, underscoring the DSA's teeth. A landmark moment came in December 2025 with the Commission's €120 million fine against X for its opaque blue-check verification system, which enabled scams and impersonation, the

first such penalty under the Act (Comel, 2025). This was swiftly followed in February 2026 by preliminary findings targeting TikTok's addictive design elements, which amplify users' exposure to harmful content. Reinforcing these measures, the strengthened Code of Practice on Disinformation – formalised as a Code of Conduct on 13 February 2025 – unites platforms, fact-checkers, and other signatories in concerted action: demonetising sources of falsehoods, fortifying user flagging tools, and reining in bot-driven amplification, all enforceable through penalties of up to 6% of global annual turnover.

The strengthened Code of Practice on Disinformation, originally updated in 2022 and formally integrated as a Code of Conduct under Article 45 of the Digital Services Act (DSA) on 13 February 2025, adopts a voluntary approach for signatories (34 entities signed the Code of Conduct, including major platforms such as Meta, Google, and TikTok). While participation remains non-mandatory, it wields considerable practical enforceability, particularly for very large online platforms (VLOPs) and very large online search engines (VLSEs), serving as a key “relevant benchmark” in DSA compliance evaluations.

Platforms face no legal obligation to join, yet the Code commits adherents to a comprehensive suite of 44 measures spanning demonetisation of disinformation actors, enhanced transparency in political advertising, service integrity safeguards (such as bot mitigation and deepfake detection), user empowerment through improved flagging tools, support for independent fact-checking, researcher access to platform data, and ongoing monitoring coordinated via an independent Transparency Centre operational since 1 July 2025. Non-signatories, by contrast, bear the onus of independently proving “equivalent measures” to address systemic disinformation risks under DSA Article 35, thereby facing comparable regulatory scrutiny during audits and enforcement proceedings.

This robust platform-centric approach dovetails with broader strategic initiatives, notably the EU's "Democracy Shield" unveiled in November 2025. It mobilizes Big Tech firms and

influencers to tackle hybrid threats, imposing voluntary yet accountability-focused labelling obligations for AI-manipulated content on key players like Google and Meta, while stressing seamless cross-border collaboration. The Commission further sustains momentum through non-legislative levers, including targeted 2026 funding calls for fact-checking networks and rapid alert systems on foreign interference. At its core, this multifaceted strategy prioritizes building societal resilience via widespread media literacy program, ensuring a healthier information ecosystem without necessitating entirely new legislative layers.

Consequently, new transparency rules, stricter reporting requirements and liability obligations for providers have been introduced.

This evolving framework is further strengthened by the European Media Freedom Act (EMFA, Regulation (EU) 2024/1083), which has been fully applicable since August 2025. The EMFA protects journalistic independence from spyware and political interference, and requires structured dialogue between platforms and media outlets to counter the algorithmic demotion of verified content.

The EMFA introduces transparency and reporting obligations, particularly for very large online platforms (VLOPs). Article 17 states that VLOPs must publish annual reports detailing the grounds, frequency and impact of restrictions/suspensions of media content and provide aggregated data to a Commission database for oversight purposes. Under Article 18, platforms contribute to the European Board for Media Services' dialogue with media, civil society and stakeholders on best practices under Article 17, diverse media access and self-regulation against harmful content (e.g. disinformation).

Alongside the constraints imposed by the Digital Markets Act on gatekeepers, these instruments collectively uphold Article 11 of the Charter of Fundamental Rights on freedom of expression, while methodically addressing vulnerabilities in the infosphere to manipulation. This ensures that innovation can flourish without undermining democratic foundations. For EU

project stakeholders, the 2026 milestones signal a maturing enforcement landscape, creating an opportunity to develop compliance strategies that balance rights protection with technological advancement

From the brief regulatory framework referred to here, it is then clear that there is a need to verify whether the legislation in force today can be considered a valid and effective legal instrument in countering the spread of conspiracy theories and limiting the possible damage they cause to third parties. It is also desirable to examine the possibility of using other regulatory instruments to protect not only individuals but also the members of a group, such as the recently enacted legislation aimed at regulating a form of class action of European origin. The European effort aims to produce technologies and offer services for the benefit of mankind, to build an efficient and reliable artificial intelligence. Digital policies seek to outline a comprehensive and reliable regulatory framework, paying particular attention to continuous innovation, accountability, algorithmic discrimination, helping to stimulate a fair and potentially sustainable AI (Hacker, 2022).

The Commission's 2026 Work Program (October 2025) emphasizes implementation, resilience-building, and defensive measures under its "Democracy and Rule of Law" pillar. While there is no standalone anti-disinformation bill, the program reinforces implementation via DSA/AI Act guidelines, potential DSA amendments for emergency crisis response, and enhanced situational awareness tools. This maintains the dynamism of the current ecosystem without radical legislative shifts. Monitoring the Commission's rapid alerts and code updates remains essential, as the transition from voluntary to mandatory (e.g., the Hate Speech Code) exemplifies the iterative approach (Bertelli, Pacitti, De Santis, 2025).

8.0 Social Media and technological perspectives

8.1 Recommendation Algorithms, Misinformation Spread, and Radicalization

Social platforms enable individuals and organizations to communicate and influence opinions at scale, but they also provide conditions in which false and misleading information can spread. A recurring concern is that recommendation and ranking systems can intensify this problem by optimizing for engagement and retention, while keeping personalization mechanisms opaque to users and external observers (Pathak, 2024; Budak, 2024).

Impact is assessed at several levels. Some studies measure exposure directly by quantifying how many misinformative items appear in recommendation lists and whether misinformation is concentrated on a few users or spread widely across the population (Fernandez et al., 2024). Others treat recommendations as triggers for propagation and simulate diffusion in user networks, showing that diffusion risk can differ from list-level risk and can depend on the composition of the network and the presence of highly influential users (Pathak et al., 2023). Other studies emphasize the role of recommendation diversity, linking broader recommendation lists to lower misinformation propagation (Pathak & Spezzano, 2024). Another strand uses modeling to study how misinformation beliefs and social ties evolve under algorithmic intervention configurations producing diversification, polarization, and radicalization outcomes (Zhang et al., 2025). Work on disinformation networks shifts attention from individual false claims to community consolidation, arguing that common recommendation components such as similarity matching and collaborative reinforcement can produce dense structures that are effective for narrative diffusion (Muñoz et al., 2025) Finally, audits, reviews, and behavioral studies on video and microblog platforms evaluate whether recommenders steer users toward problematic content and how platform effects relate to user demand, subscriptions, and external referrals.

This survey synthesizes mechanisms, evidence, and mitigation strategies without assuming a single universal pathway from recommendation to misinformation spread or radicalization.

For this survey, relevant academic work at the intersection of recommendation systems and misinformation was identified using Google Scholar and Scopus. Searches were conducted using the keywords recommendation algorithms, recommender systems, social networks, and misinformation and were restricted to recent publications (2022 onward). Candidate papers were initially screened based on titles and abstracts to assess topical fit and relevance to the survey's focus. A final set of studies was then selected to cover a range of platforms, algorithmic families, and evaluation approaches (e.g., list-level audits, diffusion simulations, intervention studies, modeling, and platform audits), with priority given to peer-reviewed papers in high-quality venues.

8.1.2 Mechanisms linking recommendation to misinformation and radicalization

In a Twitter/X study (Fernandez et al., 2024) comparing recommendation methods, popularity-based recommendation often produces the strongest increases in misinformation exposure and tends to repeatedly recommend the same limited set of misinformative items. Matrix factorization can behave similarly due to popularity bias, but it can also spread a broader variety of misinformative items more evenly across users, which creates a distinct amplification pattern from simply repeating a small set of viral items (Fernandez et al., 2024). Neighbour-based methods tend to spread less misinformation in several tested scenarios (Fernandez et al., 2024).

The same study emphasizes that misinformation impact is not captured by a single metric. It evaluates misinformative items in recommendation lists using an absolute count, a ratio-change measure relative to each user's prior misinformation exposure, and a population-level

inequality measure describing how uniformly misinformation is distributed across users. These measures distinguish between systems that push misinformation to a small subset and systems that distribute it broadly.

Diffusion simulations that treat recommendations as propagation triggers suggest that algorithms can differ substantially in their contribution to misinformation diffusion (Pathak et al., 2023; Pathak, 2024). While content-based recommendation and a trust-based network-aware matrix factorization approach (social matrix factorization, SMF) may be less prone to recommending misinformation at the list level, simulations indicate that SMF and popularity-based ranking can nonetheless contribute strongly to spread once network dynamics and user positions are considered (Pathak et al., 2023; Pathak, 2024). These studies also highlight user heterogeneity: both super-spreaders and non-super-spreaders contribute to diffusion, and accountability can shift across datasets depending on whether diffusion is dominated by super-spreaders or spread more broadly across users (Pathak, 2024).

A study of diversity in news recommendation (Pathak & Spezzano, 2024) evaluates diversity in top-10 lists and simulates misinformation propagation. It reports that higher diversity is associated with lower misinformation propagation. In the evaluation, collaborative filtering and content-based methods provide higher diversity than popularity and some network-based systems, and low-diversity systems (SMF and popularity) are more prone to contributing to diffusion (Pathak & Spezzano, 2024).

The framework in (Pathak, 2024) proposes integrating diffusion models to benchmark recommenders and examines interventions such as accuracy nudges. It reports that interventions can be effective when applied on top of collaborative filtering and content-based recommenders, while often being less effective for popularity and some network-based systems in certain scenarios. Related work (Pathak & Spezzano, 2025) evaluating robustness of virality circuit breakers and accuracy nudges under circumvention finds that these

interventions remain effective on top of collaborative filtering and content-based recommenders across datasets, with more mixed outcomes for popularity and SMF in some settings.

Simulation work (Muñoz et al., 2025) on disinformation networks reports that different recommendation techniques generate different recommendation networks, with structural properties such as density, fragmentation, and clustering leading to different diffusion capabilities. The study highlights an accuracy and engagement paradox: high-precision similarity-based approaches can foster dense, efficient disinformation communities that disseminate aligned narratives quickly, while collaborative filtering reinforcement can further consolidate these networks once established (Muñoz et al., 2025). It argues that vulnerability comes from common system components, including textual similarity exploitation, collaborative reinforcement, and efficiency optimization, each of which can independently contribute to network consolidation (Muñoz et al., 2025).

Modelling work (Zhang et al., 2025) on misinformation diffusion considers how beliefs and social relationships coevolve under different intervention settings. It reports that misinformation can evolve toward radicalization even without algorithmic intervention, and that certain intervention regimes can exacerbate polarization in the modelled system, while other regimes can mitigate or reverse these trends under different intervention assumptions (Zhang et al., 2025).

An audit (Srba, 2023) of YouTube recommendations shows that problematic recommendation patterns can appear in recommendations and home page results for some topics, and that watching debunking content can reduce misinformation-promoting recommendations, with strong contextuality effects. Another YouTube audit (Schellingerhout et al., 2025) emphasizes personalization by using authenticated accounts and multiple watch strategies, finding that priming with conspiracy-classified content can rapidly increase conspiracy recommendations

and that reversing this pattern can be more difficult than producing it, especially when watch strategies rely on platform recommendations. A systematic review (Yesilada & Lewandowsky, 2022) synthesizing 23 studies concludes that many studies find YouTube’s recommendation system increases exposure to problematic content. It also emphasizes limited access to the recommender and methodological constraints and calls for greater collaboration and transparency.

A reverse-engineering audit of TikTok’s recommender (Shin & Jitkajornwanich, 2024) examines claims of “algorithmic radicalization” by asking whether recommendations nudge users toward more extreme content, how recommendation pathways foster polarization, and whether “radical bubbles” can form over time. It reports routine exposure to hateful or extremist channels and multiple pathways into far-right content, with a substantial share of such exposure attributed to recommendation-driven pipelines. The findings suggest that feedback loops can repeatedly funnel users who engage with biased material toward increasingly similar and potentially more extreme recommendations. The study calls for stronger transparency, user control, and independent auditing of the system.

Behavioural evidence and broader reviews complicate a simple, universal rabbit-hole narrative. Behavioural and survey data from a representative sample indicate that exposure to alternative and extremist YouTube channels is heavily concentrated among a small group with strong prior predispositions, and that subscriptions and external links can be primary drivers of exposure, with the algorithm playing a secondary role in the observed 2020 window (Chen et al., 2023) A broader review (Budak et al., 2024) argues that average exposure to problematic content is often low and concentrated in the tails, that demand effects can be stronger than algorithmic effects in several settings, and that platform transparency and collaboration with researchers remain essential for understanding these dynamics.

Related evidence (Milli et al., 2025) from a preregistered audit of Twitter ranking finds that engagement-based ranking can amplify emotionally charged and out-group hostile content relative to a reverse chronological baseline, and that ranking based on stated preferences can reduce hostile content while introducing its own trade-offs.

Additional evidence extends audits to political exposure and low-credibility amplification on Twitter/X. A six-week sock-puppet audit (Ye et al., 2024) during the 2024 U.S. presidential election finds that the "For You" timeline skews exposure toward a small set of high-popularity accounts, with higher exposure inequality for right-leaning profiles. Both left- and right-leaning profiles see greater exposure to ideologically aligned users and reduced exposure to opposing viewpoints, and new accounts show a right-leaning bias in default timelines. Complementary observational evidence (Corsi, 2024) using large-scale digital traces on COVID-19 and climate change discussion suggests that low-credibility links can receive higher impression volumes on aggregate, with the effect largely driven by high-engagement, high-follower accounts. Amplification is also higher for more toxic and right-leaning content, and for low-credibility posts from verified accounts in the study setting. For network growth, an audit of Twitter's "Who-To-Follow" friend recommender finds that algorithm-following accounts can move into dense, reciprocal neighborhoods that develop into echo-chamber structures, yet can be less politically homogeneous than networks grown through social endorsement and can have fewer opportunities to be exposed to election-misinformation narratives than endorsement-driven growth (Duskin et al., 2024).

Work (Hosseinmardi et al., 2024) on YouTube and news recommendation further illustrates that platform effects can vary by system and user trajectory. A causal "counterfactual bots" design estimates that relying exclusively on YouTube recommendations results in less partisan consumption on average (with the largest effect for heavy partisan consumers) and that the sidebar recommender "forgets" partisan preferences within about 30 videos after a switch to

moderate content, while homepage recommendations adjust more gradually. In contrast, a climate-change case study [Sakieh, 2024) combining scraping and agent-based modeling reports that recommended videos are often dominated by content from the same channel aligned with a political media agenda, and that network size can be decisive for message spread in the simulations. In news recommendation, experiments report that several state-of-the-art algorithms can amplify exposure to biased media and differ in their sensitivity to bias even when standard accuracy is comparable (Ruan et al., 2024). Another online experiment (Ludwig et al., 2023) finds limited average polarization effects from content-based news recommendation but reports that time spent with recommended content can moderate outcomes: negative-sentiment enrichment increases affective polarization while balanced-sentiment recommendation can reduce ideological polarization over time.

8.1.3. Mitigation and governance

The mitigation approaches highlighted in the papers cover technical design, intervention overlays, monitoring, and governance.

Adaptation guidance recommends reducing popularity effects, for example by favoring neighbor-based recommendation and limiting neighborhood to prevent the system from converging toward pure popularity behaviour (Fernandez et al., 2024). The evaluation in (Pathak & Spezzano, 2024) supports diversity as a design metric for misinformation-aware recommendation, reporting that higher diversity corresponds to less misinformation propagation and that collaborative filtering and content-based approaches can deliver more diversity than popularity and some network-based systems. Proposed adaptations include detecting malicious or coordinated actors and reducing their influence on recommendations, as well as incorporating account reliability and content credibility into ranking and

recommendation so that low-credibility users and items contribute less to future recommendation cycles (Fernandez et al., 2024).

The framework in (Pathak, 2024) and the study in (Pathak & Spezzano, 2025) emphasize interventions layered on top of recommenders, including accuracy nudges and virality circuit breakers. These interventions can reduce misinformation propagation in simulated settings. Their robustness depends on both the base recommender and adversarial conditions, with stronger results often reported for collaborative filtering and content-based methods than for popularity and certain network-based methods in some scenarios.

The work in (Zhang et al., 2025) suggests that changing both recommendation and information distribution rules can shift outcomes from radicalization toward diversification or weaker polarization in the modeled system, for example by reducing relevance among incoming information sources or using predetermined information. The paper (Lasser & Poehchacker, 2025) argues for designing recommendation systems to support democratic values and healthy discourse. It proposes multistakeholder metric construction and scenario-based risk assessment to balance societal outcomes and freedom of expression, which aligns this design with the EU Digital Services Act.

Several audits and reviews (Srba et al., 2023; Yesilada & Lewandowsky, 2022; Budak et al., 2024) emphasize that restricted access to recommender systems limits causal inference and reproducibility, motivating external auditing, data access, and collaboration between platforms and researchers. These governance tools are presented as complements to technical mitigations, especially in settings where recommendations are shaped by feedback loops and where demand-side dynamics can dominate average exposure while still leaving meaningful tail risks. A recurring caution is harm shifting: reducing the amount of misinformation recommended may not be sufficient if adaptations inadvertently promote more harmful variants or different forms of problematic content.

8.1.4. In summary

This survey shows that the relationship between recommender systems and misinformation is best understood from several perspectives: list-level exposure, diffusion dynamics, and the network structures created by recommendation. Algorithm families can show different trade-offs: approaches that surface less misinformation in recommendation lists may still enable spread once diffusion dynamics and user heterogeneity are taken into account. These findings motivate evaluating recommenders not only by conventional accuracy or engagement metrics, but also by diffusion-aware metrics that capture how exposure concentrates and propagates.

Mitigation strategies therefore benefit from a layered approach. System-level interventions such as accuracy nudges and circuit-breaker mechanisms can reduce propagation in many settings, but their effectiveness varies by algorithm family, dataset, and adversarial behaviour, which underscores the need for robustness evaluation rather than one-off tests. More broadly, the evidence supports combining algorithmic design choices with platform governance: transparent access for independent evaluation, carefully scoped auditing, and risk-aware benchmarks are important complements to in-product interventions. These approaches can reduce misinformation diffusion while preserving legitimate personalization and user utility.

8.2 What current research teaches us about middle-aged social media users and their engagement with misinformation, conspiracy theories and online extremism

This final section considers prior research at the intersection of social media use and middle-aged users in the context of extremism, conspiracy theories and misinformation. In the following we conducted a small review of existing literature in the field in order to gain insights into existing knowledge about the SMIDGE target group of 45-65-year-olds and their

experiences with social media, but also in order to bring forward potential gaps in the field. Investigating conditions for 45-65-year-olds are, in some ways, an analytical construction. Forty-two-year-olds may not be markedly different than those in our demographic. Yet, we consider this important as prior research tends to lump together large age groups as merely part of 'adulthood' even if these demographics have wildly different experiences with digital media and, more broadly, generational contextualization. The demographic relevant for SMIDGE are the last generations that have not grown up with social media. Social media was introduced in their teenage years or in adulthood.

Similarly, they are the last generations of workers, who may remember a time where digital media did not dominate in structuring their work-life. Social media has evolved from being elective and leisure-based to being a structuring and omnipotent means of communication, socializing, engaging and participating in the public sphere and in democratic processes.

For this reason, we hypothesise that these media users have specific preconditions for engaging in social media.

For this chapter, we searched Web of science, Scopus and Google (for the latter mostly looking for grey literature, but some research came up as well). Our search strategies were adjusted to suit each database, for example on Scopus where we limited our search to 'Social Sciences' and 'Arts and Humanities' because without this limitation we ended up with over two hundred results from a range of different disciplines (namely medicine etc.) that were not relevant for our study. Our Web of science search was not limited to specific disciplines but still did not come up with any results from the humanities. We did not find meaningful results out of the field of media studies, which emphasises the importance for closing this rather significant empirical gap in the research. However, there is still some research which tackles the issue of social media use in the SMIDGE age group.

Our first search string for Web of science and Scopus were: **“Social media” AND “middle-aged” AND “misinformation”**. It resulted in 16 documents, whereas six were considered relevant based on titles. Our second search string, **“Social media” AND “middle-aged” AND “extremism”** resulted in three documents and one of them was relevant. Finally, the search string **“Social media” AND “middle-aged” AND “conspiracy theories”** resulted in four documents with one relevant article based on title and abstract. Running similar search strings on Scopus yielded similar results: 26, 0 and 3 respectively (see table 1). This demonstrates that while there is some research on social media, middle-aged users and misinformation there is almost none on middle-aged users of social media and extremism and conspiracy theories. There will of course be plenty of research more broadly focussed on ‘adults’ or without a specific target age group in mind. Searching for “middle aged” without a hyphen resulted in several search errors because studies on geographical regions such as the Middle East and Middle Africa were included. In comparison, “middle-aged” generated more relevant results and did not exclude non-hyphenated versions of the word.

The articles included in the chapter below have been chosen through a selection based on titles and abstracts. The following table shows the results of our searches on academic databases. Our search was corrected for repeating articles across databases, which left us with a small sample of articles.

Web of science	Results	Relevant articles
“Social media” AND “middle-aged” AND “misinformation”	16	6

“Social media” AND “middle-aged” AND “extremism”	3	1
“Social media” AND “middle-aged” AND “conspiracy theories”	4	1
Scopus	Results	Relevant articles
“Social media” AND “middle-aged” AND “misinformation”	26	4
“Social media” AND “middle-aged” AND “extremism”	0	0
“Social media” AND “middle-aged” AND “conspiracy theories”	3	2
Google + network		
“Social media use in middle-aged adults”	unavailable	3 research articles, 3 reports

Table 1.0. Search strings and results

The following sums up the results of our literature search and points out theoretical and empirical gaps in the field. First, we consider middle-aged adults use of social media more broadly, before, second, zooming in on what we know about how this age group navigate knowledge production, information search and misinformation, before, third, considering the role of this age-group in spreading hate speech and endorsing violence online. Unsurprisingly, the above search results and the following sections reveal that this field remains significantly understudied and the current social development following the COVID lockdowns and the spread of global conspiracy theory narratives, emphasises the urgency of understanding the participation of this demographic in democratic and anti-democratic processes online.

8.2.2 Middle-aged adults and social media use

In our google search, we aimed to get articles that centred on social media use amongst middle-aged users without the overall focus on misinformation, conspiracy theories and extremism in order to draw on insights into middle-aged populations use of social media more broadly. Interestingly, three articles centred on this particular age group with a focus on mental well-being and executive function. We include them here, because they might inform us to the specific challenges that adults between 45-65-year-olds are facing in the contemporary digital landscape.

One study investigates the relationship between age and well-being, hypothesizing that social media functions as a mediating role for social interaction and connection, which is increasingly important among adults (Wu et al., 2023). The study finds that while users on social media do feel less lonely and that social media positively affects their well-being, the study also found that users engage less as they age, resulting in negative effects on well-being for older adults.

The study concludes that health care professionals should consider proposing social media participation as potential methods for ‘enhancing well-being’. This study presents us with an interesting paradox, because as social media use leads to a greater sense of social connection and well-being amongst middle-aged adults, it also potentially exposes them more to harmful content. It also poses the challenge that the positive effects of social media use may be exactly what keeps middle-aged adults on social media, even if what connects a given community is misinformation or conspiracy theories. Another study, which was based on a survey of 3,294 adults (Guzman & Menten, 2017) over the age of 35, offers similar insights. While other research of younger social media users demonstrates a relationship between social media use and prediction of depressive episodes, the same is not found in an older cohort. For this age-group social media use is ‘not associated with increased depression’ (ibid). The authors again speculate that social media can be a tool to offset the risk of depression and isolation among adults as they develop a sense of community.

Finally, one study from 2020 investigates the relationship between social media use and executive function in middle-aged and older adults through a structural equation modeling analysis (Khoo & Yang, 2020). Their study draws on the MIDUS Refresher Survey and Cognitive Projects and tests a cohort of users from 40-70-year olds. They find that “[perceived social support](#) (sic) and constraints fully and serially mediated the relation of middle-aged and older adults' social media use for interpersonal interactions” with executive function (ibid, NA). Again, social media’s potential for social connection and a sense of belonging seemingly plays a mediating role in age-related cognitive decline and maintaining executive function. Notably these studies are for the most part survey-based studies, and it seems evident that more qualitative research is needed in order to fully understand these findings. As the SMIDGE-project investigates how middle-aged adults navigate and participate in social media narratives related to misinformation, conspiracy theories and extremism, we must keep in mind that this happens on the background that this demographic, perhaps more so than other demographics,

experience positive effects both as it relates to social connection, mental well-being and cognitive functioning from using social media. These insights should shape our mitigation strategies, counter narratives and policy proposals.

8.2.3 Knowledge production, information search and misinformation amongst middle-aged adults online

The most substantial list of search results in the selected databases was generated by the following combination of the search terms: “social media”, “middle-aged”, and “misinformation” compared to the other queries, which replaced “misinformation” with “conspiracy theories” and “extremism”, respectively. This indicates that research on middle-aged adults on social media is more centred on the topic of misinformation than conspiracy theories and extremism. However, among the 42 search results (26 in Scopus, 16 in Web of Science), many were not relevant to the present focus because the search filter was unable to exclude several documents on unrelated topics. Thus, although more research on misinformation in the age group appears to have been published, compared to the remaining topics queried, the list of results is still relatively limited.

Seven studies identified via the abovementioned query address misinformation among middle-aged adults on social media in different ways. Five out of seven explicitly mention diseases in their titles and/or abstracts, including Lyme Disease, Diabetes, and COVID-19. One conference paper (Warwas et al., 2021) addresses opinion formation in relation to “scientific topics” across different age groups, including the middle-aged. The paper focuses minimally on misinformation as it is primarily concerned with mapping the channels used to assess scientific information. The study found that, in a European context, “the middle-aged heavy users prefer to look for scientific news mainly on general websites and information websites, and FB [Facebook]” (Warwas et al., 2021, p. 2663), echoing similar findings in other studies about

middle-aged individuals' information-seeking behavior in relation to COVID-19 (Skarpa and Garoufallou, 2021; Tang et al. 2023; Nugent et al. 2025). Another study focuses on the ability to assess fake news about ecology in different age groups (Cassotti et al., 2025). However, the middle-aged are here defined as 30-45 year-olds, while older adults are defined as 65-80 year-olds, leaving out a large group of the 45-65 year-olds. Although the study finds that adolescents are better at detecting fake news than the older age groups, it contributes with no new knowledge about the age group of interest to the SMIDGE project (45-65) except underpinning the middle-aged adults as an overlooked demographic in research related to information and misinformation search.

8.2.4 Hate speech and endorsement of violence amongst middle-aged adults online

Finally, we address the issue of hate speech and extremism among middle-aged users on social media. A newly published policy paper from the *dist[ex]* (i.e. Development of a network for disengagement and exit work, Friedrich, November 2025) points out that research and prevention efforts have a 'blind spot' when it comes to online radicalization processes and middle-aged adults. The report highlights that 'adults in their later years can also turn towards anti-democratic milieus, become radicalised online, or adopt extremist worldviews in old age' (Friedrich 2025). The absence of sufficient research into this demographic means we might overlook important risk factors such as loneliness, existential/identity crisis, loss of purpose and self-efficacy. The report calls for new approaches between research and civil society, while also emphasizing the need for more awareness of this demographic (ibid).

Earlier in 2025, a report from the Danish research institute, Analyse & Tal (Analysis and Numbers) published a report on online attacks and hate in the public debate on Facebook. The report investigates Danish Facebook users, but the results have some transferable value to other similar democracies. They find that around 4.5 percent, or every 20th comment, on

Danish Facebook is a verbal attack. This frequency has not changed since 2019. Politician's profiles are hit the hardest with 6.2 percent attacks, while media profiles/pages get 4.2 percent attacks (Analyse & Tal, 2025). This poses a significant challenge to democracies by generating a spiral of silence amongst public officials as people attempt to avoid unpleasant and threatening reactions. The report also shows that media outlets more focussed on confrontation, conflict and crime generates more hateful comments. Importantly, they find that 0.2 percent of users are responsible for 30 percent of the verbal attacks in their sample. This means that the spread of hate and threats are generated by a very limited group of people, but they are able to contaminate comment sections broadly across the platform. For SMIDGE, the report interestingly points out that *around 80 percent of these verbal attacks are made by users over the age of 40*. 68 percent of them are men, while 32 percent are women. This report emphasizes the need for further investigation of the middle-aged cohort's behaviour and participation on social media. Finally, they find that once a comment section includes a verbal attack the attacks increase by 300 percent. Perhaps unsurprisingly, the report confirms that hate is contagious. This points to the necessity for content moderation and platform regulation to mitigate these tendencies. It also emphasises the need for media users (whether private or public) to have control over their own pages, profiles and comment sections in order to mitigate the increase of hate.

Another Danish report made by the Finn Nørgaard Foreningen (an anti-terrorist organisation supporting victims of terrorism) offers a yearly barometer for political violence in Denmark. The 2025 report reveals that the support for political violence is low, but not non-existing even in a Danish context with high institutional trust. For example, the report finds that 22 percent feel that "political violence is acceptable in order to preserve democracy", while 5.5 percent might imagine a situation where they themselves would engage in political violence (Finn Nørgaard Foreningen, 2025). Notably, the middle-aged cohort in this study have the lowest support for political violence, while young adults have the highest. In this sense, this cohort might be most

active in spreading verbal attacks online but are not willing to cross the line into physical violence. However, the online attacks may serve as calls to action for other users.

8.2.5 In summary

In conclusion, it seems clear that research in this field is still representing a significant research gap, despite recent efforts. We should note that apart from one international report, this section mainly represents grey literature from a Danish context. It may very well be that we have missed similar reports from other countries because they would not show up in our English language-based searches. This study demonstrates the need for further research into a middle-aged cohort for whom social media participation is highly ambivalent; they both seem to benefit positively from the connections made and the sense of community, but they are also the cohort that contributes with the most verbal attacks. We realise this is still based on a very small sample of studies, so the overall conclusions point to the need for more targeted research in this field.

Conclusion

This report has made it possible to move beyond a fragmented reading of conspiracy theories and disinformation, highlighting how these phenomena should be interpreted as dynamic systems, characterised by high interconnectivity, adaptability and self-reproducing capacity. The analysis conducted shows that conspiracy narratives do not spread randomly, but are structured within complex ecosystems in which content, actors, platforms and technologies interact in a systemic way, generating progressively closed and self-referential information environments.

One of the main contributions of this second deliverable is to have highlighted how informational radicalisation does not manifest itself primarily through sudden breaks, but rather through gradual processes of normalisation, accumulation and sedimentation of beliefs. From this perspective, adherence to individual conspiracy narratives is often only an intermediate stage in a broader process, which can lead to the construction of worldviews that are impervious to critical comparison. This result contributes to reformulating the very concept of vulnerability, understood not as a static condition, but as an evolutionary process influenced by emotional, relational, technological and contextual factors.

The analysis also confirms that the middle-aged population occupies a strategic position within contemporary information ecosystems, not only as the privileged recipient of certain content, but also as a central node in the processes of mediation and social diffusion. The dynamics observed suggest that the impact of disinformation in this age group tends to extend far beyond the individual dimension, influencing family networks, professional environments and community contexts, with cumulative effects on the quality of public debate and institutional trust.

A further innovative element that has emerged concerns the role of emerging technologies in redefining the ways in which conspiracy narratives are produced and circulated. The growing integration of artificial intelligence tools, synthetic content and automation systems is

progressively lowering the barriers to entry into the production of disinformation, expanding the scale and sophistication of manipulative campaigns. This process contributes to making it increasingly difficult to distinguish between reliable information, distorted content and deliberately misleading constructions, reinforcing dynamics of epistemic uncertainty.

Overall, the findings of this report suggest that strategies to combat disinformation cannot be limited to ad hoc content verification or technical moderation. On the contrary, there is a need for multi-level approaches that integrate educational, relational, technological and institutional dimensions, taking into account generational specificities and social contexts. In particular, media literacy policies aimed at the middle-aged population should be designed in a targeted manner, enhancing existing skills and strengthening the ability to recognise complex manipulative dynamics.

The research path developed by SMIDGE also demonstrates the importance of a stable and continuous interdisciplinary approach to address phenomena characterised by rapid evolution and strong hybridisation. Collaboration between sociological, psychological, legal, technological and political fields has proved essential in order to grasp the plurality of factors at play and to construct robust and operational interpretative frameworks.

Finally, this report contributes to strengthening the knowledge base necessary to support informed decision-making at European level. The evidence gathered indicates that democratic resilience in the digital age increasingly depends on the ability of institutions to understand and anticipate transformations in information ecosystems. In this sense, the results of SMIDGE offer a significant contribution to the development of evidence-based public policies that are prevention-oriented and sensitive to the social dynamics that characterise the middle-aged population.



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