

Management of Digital Radicalism Prevention within the Educational Ecosystem: An Analysis of Driving Factors, Patterns of Spread, and School Strategies

Vina Mafaza ¹, Nisrina Qurrotul Ain ², Putri Nurul Azizah ³, Fina Nikmatul Kamelia ⁴, Muhlisin Muhlisin ⁵, Abul Mafaakhir ⁶

¹. UIN K.H. Abdurrahman Wahid Pekalongan, Indonesia

². UIN K.H. Abdurrahman Wahid Pekalongan, Indonesia

³. UIN K.H. Abdurrahman Wahid Pekalongan, Indonesia

⁴. UIN K.H. Abdurrahman Wahid Pekalongan, Indonesia

⁵. UIN K.H. Abdurrahman Wahid Pekalongan, Indonesia

⁶. UIN K.H. Abdurrahman Wahid Pekalongan, Indonesia

e-mail, vina.mafaza24043@mhs.uingusdur.ac.id, nisrina.qurrotul.ain24053@mhs.uingusdur.ac.id, putri.nurul.azizah24054@mhs.uingusdur.ac.id, fina.nikmatul.kamelia24056@mhs.uingusdur.ac.id, muhlisin@uingusdur.ac.id, abul.mafaakhir@uingusdur.ac.id

ABSTRACT. Digital radicalism amongst school pupils poses a challenge to the education ecosystem as access to digital media which can be exploited to spread extremist ideologies continues to increase. This study aims to analyse the factors driving students' vulnerability to digital radicalism, the patterns of dissemination of extremist ideologies via digital media, and prevention strategies through school management. This study employs a qualitative method using a literature review approach, involving the examination of books, scientific journals, research reports and policy documents. The data were analysed through the stages of data reduction, data presentation and drawing conclusions. The findings indicate that students' vulnerability is influenced by the intensity of social media use, low digital literacy, an identity crisis, a need for social acceptance, an incomplete understanding of religion, and repeated exposure to extremist content. The spread of extremist ideologies occurs through attractively packaged content, propaganda and the formation of digital networks, the exploitation of social and national issues, and interaction within communities sharing similar views. From an educational management perspective, the prevention of digital radicalism requires the optimisation of planning, organising, implementing and monitoring functions, supported by the leadership of headteachers and synergy between schools, families and the community. This study emphasises that the prevention of digital radicalism requires an integrated approach to educational management and cannot be left solely to teachers of Islamic Religious Education.

Keywords. Education Management, Digital Radicalism, Students, Prevention of Radicalism.

Abstrak. *Radikalisme digital di kalangan pelajar menjadi tantangan bagi ekosistem pendidikan seiring meningkatnya akses terhadap media digital yang dapat dimanfaatkan untuk menyebarkan paham ekstrem. Penelitian ini bertujuan menganalisis faktor pendorong kerentanan pelajar terhadap radikalisme digital, pola penyebaran paham ekstrem melalui media digital, serta strategi pencegahannya melalui pengelolaan sekolah. Penelitian ini menggunakan metode kualitatif dengan pendekatan studi kepustakaan melalui penelaahan buku, jurnal ilmiah, laporan penelitian, dan dokumen kebijakan. Data dianalisis melalui tahap reduksi data, penyajian data, dan penarikan kesimpulan. Hasil kajian menunjukkan bahwa kerentanan pelajar dipengaruhi oleh intensitas penggunaan media sosial, rendahnya literasi digital, krisis identitas, kebutuhan akan penerimaan sosial, pemahaman keagamaan yang belum komprehensif, serta paparan konten ekstrem secara berulang. Pola penyebaran paham ekstrem berlangsung melalui konten yang dikemas secara*

menarik, propaganda dan pembentukan jaringan digital, pemanfaatan isu sosial dan kebangsaan, serta interaksi dalam komunitas dengan pandangan serupa. Dari perspektif manajemen pendidikan, pencegahan radikalisme digital memerlukan optimalisasi fungsi perencanaan, pengorganisasian, pelaksanaan, dan pengawasan, didukung kepemimpinan kepala sekolah serta sinergi antara sekolah, keluarga, dan masyarakat. Penelitian ini menegaskan bahwa pencegahan radikalisme digital memerlukan pengelolaan pendidikan yang terpadu dan tidak dapat dibebankan hanya kepada guru Pendidikan Agama Islam.

Kata Kunci: *Manajemen Pendidikan, Radikalisme Digital, Pelajar, Pencegahan Radikalisme.*

Introduction

Radicalism amongst school pupils poses a challenge for education in Indonesia, as schools play a key role in shaping character and reinforcing national ideology (Agustina dkk., 2025; Kholis dkk., 2025). Schools are expected to instil moderate religious values and a critical mindset in their pupils (Hasan dkk., 2024; Hidana dkk., 2026). Schools are expected to instil moderate religious values and a critical mindset in their pupils (antaranews.com, 2025) It states that 112 children aged between 10 and 18 across 26 provinces were exposed to radicalism via the platform throughout 2025, although the original data and sources need to be verified. This issue requires schools to be able to anticipate digital risks whilst fostering an environment that supports character development.

Radicalisation amongst students is on the rise alongside digital interaction and may involve individual processes (lone actors) linked to identity crises, social isolation and a narrow, literalist understanding of religion (Sukabdi dkk., 2026). Exposure to radical content, recommendation algorithms, the internalisation of ideology and closed networks can fuel radicalisation and limit alternative perspectives (Azhima, 2025; Mala & Rahman, 2024). Pupils' vulnerability is also influenced by psychological factors, such as the need for recognition; social factors, such as discrimination and a lack of integration; and economic factors, such as injustice and inequality. Social media exacerbates this vulnerability through engaging content and narratives centred on identity, solidarity and ideological legitimacy (Fadillah dkk., 2025). Therefore, any analysis of digital radicalism must link students' vulnerabilities to the patterns of the spread of extremist ideologies.

Previous research has examined digital radicalism and its prevention from various perspectives. A study by (Khakim, 2024) emphasises digital religious literacy, critical thinking, information verification, and support for teachers and parents. The study (Sartika & Famili, 2026) identified the spread of radical ideology through digital networks, emotionally charged religious narratives and echo chambers, as well as the importance of the involvement of schools, families and the community. The study (Qomariah & Ilyas, 2025) highlights student management through policy, digital literacy, psychosocial support and family partnerships. This study provides a foundation for understanding vulnerabilities, patterns of spread and educational interventions.

However, a synthesis is required that links student vulnerability factors and patterns of the spread of digital radicalism with school management functions as a framework for prevention.

Islamic Religious Education (PAI) plays a strategic role in preventing radicalism through a humanistic, dialogical and contextual approach, as well as through the internalisation of values of religious moderation, such as *tawasuth*, *tasamuh* and *tawazun* (Arli, 2025; Prasetyo dkk., 2025). Strengthening the competencies of Islamic Education teachers, a curriculum based on religious moderation, and synergy between schools, families and the community are also required (Fauziah dkk., 2025). However, the prevention of digital radicalism cannot be left solely to Islamic Education (PAI) teachers or the teaching process alone; rather, it requires school management that encompasses policy formulation, the allocation of responsibilities, coordination of implementation, and the monitoring and evaluation of programmes. Thus, educational management links pedagogical efforts with the comprehensive management of prevention measures.

This study analyses the prevention of digital radicalism through the interrelationship between students' vulnerability factors, patterns of the spread of extremist ideologies, and school management based on the functions of planning, organising, implementing and monitoring. Through a literature review, this study aims to examine students' vulnerabilities, patterns of the spread of digital radicalism, and prevention strategies through policies, coordination, programmes, monitoring and evaluation involving stakeholders. Its contribution lies in a conceptual synthesis linking the risk characteristics of digital radicalism with the management requirements for prevention within the educational environment.

Method

This study employs a qualitative method using a *library research* approach to analyse the prevention of digital radicalism within the education ecosystem (Snyder, 2019). This approach was chosen because the research focuses on the review and synthesis of various pieces of literature discussing the factors driving student vulnerability, patterns of the spread of extremist ideologies via digital media, and prevention strategies from an educational management perspective (Xiao & Watson, 2019). Through this approach, the research aims to develop a conceptual understanding of the links between pupils' vulnerability characteristics, the mechanisms by which digital radicalism spreads, and the management of prevention programmes in school settings.

The sources of data for the research include books, scientific journal articles, research reports and policy documents relevant to the focus of the study (Bowen, 2009). The literature was selected on the basis of its relevance to the topic of digital radicalisation amongst students, the psychological and social factors influencing vulnerability, patterns of the spread of extremist ideologies in the digital sphere, and prevention strategies through educational management. The review of sources

was carried out by considering the appropriateness of the content, the clarity of the publication's identity, and the relevance of the information to the research objectives (Snyder, 2019). The selected literature was then categorised according to three main areas of focus: factors contributing to pupils' vulnerability, patterns of the spread of digital radicalism, and prevention strategies from a school management perspective.

Data analysis was carried out using content analysis by identifying, categorising and interpreting information from various sources of literature based on the following stages (Miles dkk., 2014), namely data condensation, data presentation, and the drawing and verification of conclusions. Data were selected in accordance with the research focus, then presented according to the themes of vulnerability, patterns of spread, and prevention strategies. Subsequently, the findings were compared and synthesised to identify the interrelationships between these three aspects. An educational management perspective was employed to analyse prevention strategies based on the functions of planning, organising, implementing and monitoring.

The validity of the study's findings is ensured by verifying the credibility of sources and cross-referencing information across the literature (Lincoln & Guba, 1985). The review was conducted by examining the consistency between the statements used and the content of the original sources, comparing findings from different sources, and noting the similarities and differences in the arguments presented across the literature. Information that is not adequately supported by relevant sources is not used as a basis for drawing definitive conclusions. Through this process, the resulting synthesis is expected to have a traceable literature base that is consistent with the focus of the research.

Research Findings and Discussion

Results

Characteristics and Dynamics of Radicalism amongst Students as Lone Actors

Radicalism amongst students acting as 'lone actors' indicates a shift from involvement in organised networks towards independent action without direct links to terrorist networks. This phenomenon is linked to the exposure of 112 children across 26 provinces throughout 2025, some of whom have the potential to become lone actors as a result of the internalisation of radical ideology through digital media (antaranews.com, 2025). The term 'lone actor' refers to a student who adopts and believes in extremist ideologies and has the potential to carry out acts of violence independently. Their characteristics include an identity crisis, social isolation, a narrow and literalist understanding of religion, intolerance, exclusivism, and a tendency to justify violence (Fadillah dkk., 2025).

The dynamics of radicalisation unfold through six stages, namely: (1) initial exposure to radical content via social media and online games; (2) reinforcement of this exposure through recommendation algorithms that repeatedly present similar content; (3) a shift to closed interaction spaces to deepen ideological understanding and build rapport with like-minded individuals; (4) digital grooming through a personalised approach that builds trust and emotional bonds; (5) the internalisation of radical ideology until it becomes a personal conviction and is potentially disseminated further; and (6) the formation of an ‘echo chamber’ that reinforces extreme beliefs, limits alternative viewpoints, and increases social isolation.

Within the education system, these vulnerabilities can be exacerbated by a lack of early detection, religious education that emphasises cognitive aspects and rote learning without delving into the affective and social dimensions, and unmonitored informal religious activities. The absence of adequate educational spaces for pupils to fulfil their spiritual and existential needs may also encourage them to seek alternatives outside school, which could potentially be filled by radical narratives (Azhima, 2025).

Factors Contributing to Students’ Vulnerability to Digital Radicalism

A review of the literature indicates that pupils’ vulnerability to digital radicalism arises from the interplay of digital, psychological, social and religious factors (Feddes dkk., 2023). These four factors do not exist in isolation, but are linked to learners’ ability to receive, evaluate and respond to information obtained through digital media. The study (Aldilal dkk., 2023) identifies limitations in media literacy regarding radical content on social media amongst some adolescents, whilst (Fanindy & Mupida, 2021) identifies social media as one of the platforms through which radicalism can spread amongst students.

From a digital perspective, the frequency of social media use increases the likelihood of pupils encountering a wide range of information, including content promoting intolerance and extremist ideologies. However, the frequency of social media use cannot be regarded as the sole indicator of vulnerability (Bafadhal dkk., 2026). Digital literacy and critical thinking skills are also important aspects, as they determine pupils’ ability to assess the credibility of sources, compare information and understand the context of a message. A study (Putri, 2023) indicates a correlation between digital literacy and attitudes towards radicalism amongst university students. This finding is relevant as it highlights the importance of digital literacy; however, its application to school pupils must take into account the differing characteristics of the study population.

From a psychological and social perspective, the search for identity and the need for social acceptance are factors that must be taken into account (Echelmeyer dkk., 2023). Study findings (Istiqomah dkk., 2025) links identity crises and online propaganda to students’ vulnerability to

radicalism and extremism. In the digital environment, the need for recognition and a sense of belonging can be linked to attachment to communities that offer a particular identity. Nevertheless, an identity crisis or the need for social acceptance does not in itself indicate a tendency towards radicalism. These factors need to be understood in relation to the type of message, the nature of the community, and the social environment that influences the individual.

Religious factors relate to the quality of information sources and the depth of understanding of the teachings received. The study (Raihan, 2025) to identify the links between patterns of social media use, religious education and the potential for radicalism amongst university students. Religious information obtained via the internet can broaden one's knowledge, but accepting information in isolation, without verifying the source and context, can limit one's understanding of an issue. In an educational context, this highlights the importance of guidance in accessing and understanding religious information, particularly when students use digital media as one of their learning resources.

In addition to these three groups of factors, repeated exposure to extremist content is an aspect that emerges in the literature reviewed (den Elzen dkk., 2026). Research by (Aldilal dkk., 2023) discusses vulnerability to radical content on social media. Repeated exposure must be considered in conjunction with digital literacy, social circles and the process of information reception. Consequently, the study's findings suggest that students' vulnerability to digital radicalism is best understood as a multidimensional issue, rather than as a direct consequence of social media use or any single individual characteristic.

Patterns of the Spread of Digital Radicalism amongst School pupils

A review of the literature shows that digital media provide a platform for the spread of extremist ideologies through the distribution of content, propaganda, user interaction and the formation of online communities. The study (Lock & Ludolph, 2020) explains the use of online media and social media for publicity, the dissemination of propaganda, recruitment, network development and mobilisation. This dissemination can take the form of text, images, videos, quotes and religious or social narratives, tailored to the characteristics of the platform and user habits (Risius dkk., 2024).

The pattern of dissemination is also characterised by the gradual presentation of narratives. Content containing intolerant or extremist views is not always presented as easily recognisable propaganda. Some messages may be packaged as social information, opinions or religious narratives (Williams & Tzani, 2024). The content can then be shared by users, thereby reaching a wider audience (Akram & Nasar, 2023). Findings of the study (Hidayat dkk., 2025) highlights the

issue of the spread of propaganda in the digital sphere and the importance of digital literacy in helping users to evaluate information critically.

In addition to the open distribution of content, digital interaction enables users to form relationships with like-minded individuals or communities. Repeated interaction within an environment characterised by homogeneous perspectives can limit exposure to alternative information (Hartmann dkk., 2025). This pattern is linked to the formation of ‘echo chambers’ information environments that tend to reinforce users’ existing views. However, the existence of online communities or shared views does not in itself prove that radicalisation has taken place (Murthi, 2022). These relationships need to be examined in the light of the content of communications, the dynamics of interactions, and evidence of acceptance of extremist ideologies.

The dynamics of individual radicalisation associated with the ‘lone actor’ phenomenon. This process is described in six stages: initial exposure to radical content; reinforcement of this exposure through algorithms; transition to closed communication spaces; personal or digital grooming; internalisation of radical ideology; and reinforcement of beliefs within a homogeneous digital environment (Mølmen & Ravndal, 2023). This framework illustrates the possible process from exposure to information to a deeper acceptance of an ideology. However, it is important to understand that this sequence, whilst presented as a conceptual model, cannot be stated as a sequence applicable to all learners without adequate empirical evidence to support it.

Another issue that has emerged is access to religious information via digital media without adequate guidance. A study (Sari & Fanani, 2025) links this situation to the risk of a partial understanding and one-sided claims to the truth. Meanwhile (Anin dkk., 2025), emphasises the importance of digital literacy in tackling the spread of radical ideologies via digital media. These two accounts demonstrate that patterns of dissemination are not only linked to the way content is produced and distributed, but also to users’ ability to evaluate messages and interact with the digital environment.

Overall, the patterns of the spread of digital radicalism in the literature reviewed encompass the distribution of content, the reinforcement of narratives through interaction, the formation of digital communities, and the potential for the internalisation of ideology. These patterns demonstrate that exposure to information, social interaction and the acceptance of ideology are distinct aspects; it is therefore inappropriate to treat them as processes that always occur automatically or sequentially in every student.

Strategies for Preventing Digital Radicalism from a School Management Perspective

The findings of the study highlight a number of requirements for the prevention of digital radicalism within the school environment. These requirements include the development of an

early-warning system, the strengthening of religious education which should not be limited to cognitive aspects support for pupils' social development, and the monitoring of informal religious activities taking place within the educational environment. The findings of the study (Nafsiyah & Wardan, 2024) is linked to the issue of an approach to religious education that emphasises cognitive aspects and rote learning, whereas (Azhima, 2025) used to explain the importance of a supportive environment for students experiencing a spiritual and existential void.

The need to prevent digital radicalism can be mapped out through four functions of educational management (Mariyah dkk., 2021). Planning involves identifying pupils' vulnerabilities and designing programmes tailored to the school's circumstances. Organisation involves the allocation of responsibilities and coordination between the school, teachers, guidance and counselling staff, families and other relevant parties. Implementation involves digital literacy, strengthening a comprehensive understanding of religion, fostering a tolerant attitude, and providing support to pupils (Faidkholidi & Fajri, 2025). Meanwhile, oversight involves monitoring programmes, identifying signs of problems in a proportionate manner, and assessing whether implementation is in line with the stated objectives.

This mapping illustrates the conceptual relationship between vulnerability factors, patterns of the spread of digital radicalism, and school management needs. Vulnerabilities relating to digital literacy, the search for identity, and religious understanding form the basis for determining the programme's focus. Patterns of spread through digital content, interactions and communities are taken into account when determining the form of education and support. Furthermore, the educational management function provides a framework for organising the planning, allocation of responsibilities, implementation and evaluation of prevention programmes.

Strategies for preventing digital radicalism from an educational management perspective encompass four key functions: planning, organising, implementing and monitoring. These four functions relate to the development of digital literacy and religious moderation programmes, the allocation of responsibilities amongst stakeholders, the provision of support for learners, and the monitoring and evaluation of prevention programmes. Implementation requires coordination between headteachers, teachers, families and the community. As this research is based on a literature review, the findings represent a conceptual synthesis of the literature examined and do not demonstrate the empirical effectiveness of any specific strategy in schools.

Discussion

Students' Vulnerability to Digital Radicalism as a Multidimensional Issue

Students' vulnerability to digital radicalism cannot be explained solely by the intensity of their social media use (Wolfowicz dkk., 2022). This vulnerability arises from the interplay between

digital, psychological, social and religious factors. The intensity of social media use increases the likelihood of students coming into contact with a wide range of information; however, the risk of exposure to extremist ideologies is also influenced by their ability to evaluate information, their need for social acceptance, their search for identity, and their as yet incomplete understanding of religion. (Pfundmair dkk., 2024). Consequently, the use of digital media should be understood as a space that facilitates exposure, whilst pupils' vulnerability relates to how that exposure is received, interpreted and reinforced within their social environment.

This interpretation is consistent with the study (Akram & Nasar, 2023), which analysed 82 studies on radicalisation via social media. Their review showed that social media is a key platform for the dissemination of extremist propaganda, whilst also emphasising the importance of critical social media literacy. Meanwhile (Kholis dkk., 2025) to examine patterns of the spread of radical ideology amongst secondary school pupils via social media and to highlight the interrelationship between the characteristics of the digital space, ideological narratives and pupils' critical thinking skills. Both studies reinforce the understanding that vulnerability cannot be adequately explained by access to technology alone, but must be analysed on the basis of the interaction between user characteristics and the digital information environment.

Findings regarding identity crises and the need for social acceptance also indicate that prevention cannot be achieved simply by providing information about the dangers of radicalism. Students need an educational environment that allows space for questioning, dialogue and the healthy formation of identity (Gereluk, 2023). In the context of religious education, teaching should aim to develop the ability to understand differences, evaluate religious sources, and place religious teachings within a more comprehensive context. This approach does not imply that an identity crisis or limited religious understanding always leads to radicalism, but rather that these should be regarded as factors to be considered alongside others.

The importance of an approach that takes protective factors into account is also supported by (Duindam dkk., 2025). Through a meta-analysis of 41 studies involving 55,563 participants, they identified a number of factors associated with protection against extremism and violent radicalisation amongst young people, including academic achievement, prosocial behaviour, positive parental involvement, procedural justice, and positive intergroup contact. These findings provide a basis for broadening the focus of prevention from merely identifying risk factors to strengthening environments that support students' positive development. However, the results of this meta-analysis do not automatically prove that every school programme will be effective, as the influence of protective factors may vary depending on the context and characteristics of the studies.

Based on this comparison, the contribution of this study lies in linking students' vulnerability factors to educational management needs. Critical digital literacy, religious guidance, social support and an inclusive school environment must be incorporated as part of complementary preventative measures. Thus, digital radicalism is not viewed merely as a matter of individual behaviour or the use of technology, but as an issue requiring a comprehensive educational response.

Patterns of the Spread of Digital Radicalism and the Dynamics of Radicalisation amongst School pupils

The spread of digital radicalism can occur through attractively packaged content, propaganda, network-building, the exploitation of social and national issues, and interaction within like-minded communities. This pattern indicates that digital media not only functions as a channel for conveying messages, but also provides a space for interaction that enables messages to gain social reinforcement. When students are repeatedly exposed to similar narratives and have limited access to alternative perspectives, their ability to evaluate information may become less balanced. However, repeated exposure does not in itself prove the adoption of extremist ideologies or involvement in acts of violence (Wolfowicz dkk., 2022).

This explanation is in line with (Akram & Nasar, 2023), which identifies propaganda and the dynamics of information-seeking as part of the discussion on radicalisation via social media. The research (Kholis dkk., 2025) It also identifies the spread of radical ideology via social media as a key issue in prevention efforts amongst secondary school pupils. Both studies highlight the relevance of analysing the content of messages and the digital environment that facilitates their dissemination. In the context of students, this means that prevention efforts must take into account not only the content circulating, but also the way in which the material is presented, how students interact with it, and how a particular viewpoint is reinforced through social interactions in the digital space.

Findings regarding closed communities and lone actors must be interpreted with caution. A 'lone actor' refers to an individual who plans and carries out acts of violence independently, without direct orders from an organisation or group leader (Kenyon dkk., 2023). This concept explains that radicalisation can take place through digital access and interaction without face-to-face recruitment or formal membership. However, exposure to extremist content does not automatically make a student a 'lone actor'; such a designation requires specific evidence regarding the individual's acceptance of the ideology, their intentions, their behaviour and their context.

Similarly, the stages of exposure to content, reinforcement through digital interaction, internalisation of views, and potential action should not be treated as a sequence that every learner invariably experiences. The process of radicalisation can vary from one individual to another and

does not always develop in a linear fashion. Therefore, these stages are more appropriately used as an analytical framework for understanding the possible dynamics of exposure to and acceptance of an ideology, rather than as a universal pattern that has been proven to apply in all cases.

The implication of these findings is the need for prevention strategies that go beyond content monitoring. Schools need to develop pupils' ability to scrutinise information sources, identify propaganda, compare perspectives, and discuss socio-religious issues critically. Such efforts must be accompanied by support that enables pupils to voice questions or concerns without being immediately labelled negatively. This approach is essential to ensure that prevention is not solely focused on restricting access, but also on strengthening pupils' capacity to deal with information that could potentially influence their worldview.

Integrating School Management Functions into the Prevention of Digital Radicalism

Findings regarding vulnerability factors and patterns of the spread of digital radicalism indicate that prevention efforts require well-planned and coordinated school management. From an educational management perspective, the functions of planning, organising, executing and controlling can be used as a framework for integrating various prevention efforts (Nurhikmah, 2024). These four functions do not constitute separate interventions, but are interlinked within a management framework that encompasses the identification of needs and the formulation of programmes, the allocation of responsibilities and coordination between stakeholders, the implementation of prevention activities, and monitoring, evaluation and follow-up.

In the planning phase, schools need to identify digital literacy needs, challenges in religious education, and forms of support that are appropriate to the characteristics of the pupils. Planning must also set out objectives, activities, responsible parties and evaluation indicators. Based on the findings of this study, preventative activities can be directed towards strengthening critical digital literacy, contextual religious dialogue, education in tolerance, and the ability to evaluate information. Such programmes need to be tailored to the school's circumstances and should not be devised solely in response to incidents that have already occurred.

In the planning phase, schools need to identify digital literacy needs, challenges in religious education, and forms of support that are appropriate to the characteristics of the pupils. Planning must also set out objectives, activities, responsible parties and evaluation indicators. Based on the findings of this study, preventative activities can be directed towards strengthening critical digital literacy, contextual religious dialogue, education in tolerance, and the ability to evaluate information. Such programmes need to be tailored to the school's circumstances and should not be devised solely in response to incidents that have already occurred (Gereluk, 2023).

In practice, prevention strategies can be integrated into teaching, character-building activities, discussions on current issues, student support, and communication between schools and families. Digital literacy should focus on the ability to verify the credibility of sources, understand the context of information, recognise persuasive techniques, and weigh up arguments before sharing or accepting a message. In religious education, dialogue and contextual explanations can help pupils understand differences and develop an attitude that is not quick to judge other groups (Solechan, 2025). When carrying out these activities, it is important to take into account the pupils' age, needs and experience, so that prevention measures do not result in the stigmatisation of pupils who have questions or hold differing views.

The supervisory function should be understood as a process of monitoring and evaluating programme implementation, rather than as repressive oversight of all pupils' digital activities. Schools can assess the implementation of activities, student participation, improvements in the ability to evaluate information, and the quality of coordination with parents. Should there be concerns regarding behavioural changes or exposure to extremist content, follow-up measures must be taken in a proportionate manner, whilst maintaining confidentiality and taking individual circumstances into account. Thus, supervision is aimed at improving programmes and providing appropriate support, rather than merely seeking out faults or labelling students.

This management framework is consistent with the focus on (Kholis dkk., 2025) regarding patterns of the spread of radical ideology on social media and the need for prevention strategies in educational settings. Meanwhile, the findings (Duindam dkk., 2025) With regard to protective factors amongst young people, this provides a basis for considering family support, prosocial behaviour, academic achievement, fairness and positive intergroup interactions as part of a preventative environment. Neither of these studies directly proves the effectiveness of the school management model formulated in this study. However, both provide a basis for developing strategies that link an understanding of the dynamics of radicalisation with the strengthening of the educational environment.

The contribution of this discussion is to synthesise vulnerability factors, patterns of spread, and school management functions into a single prevention framework. This framework positions the prevention of digital radicalism as an institutional responsibility requiring continuous planning, coordination, implementation and evaluation. However, as this research is based on a literature review, the framework remains a conceptual synthesis and cannot yet be described as a model proven effective through field testing. Further empirical research is required to assess its implementation, identify implementation barriers, and evaluate changes in students' digital literacy and attitudes.

Conclusion

This study shows that the prevention of digital radicalism amongst school pupils is a multidimensional issue that requires an integrated school management approach. Based on a literature review, pupils' vulnerability is influenced by a number of interrelated factors, including an identity crisis, the need for social acceptance, low digital literacy, and an incomplete understanding of religion. These factors can increase students' vulnerability to content containing intolerant and radical narratives, particularly when digital interactions are not accompanied by the ability to critically evaluate information and adequate guidance.

The spread of digital radicalism occurs through attractively packaged propaganda content, the formation of networks and online interactions, and the exploitation of social and national issues to build rapport with students. This pattern indicates that prevention cannot be achieved solely through the delivery of religious material or the enforcement of measures against deviant behaviour, but must also include the strengthening of digital literacy, a moderate and comprehensive understanding of religion, and psychosocial support tailored to students' needs. Therefore, schools need to develop systematic prevention strategies through the functions of planning, organising, implementation, as well as monitoring and evaluation. These strategies must be supported by school leadership, the involvement of teachers and educational staff, and synergy between schools, families and the community.

The main contribution of this study lies in synthesising the relationship between students' vulnerability factors, patterns of the spread of digital radicalism, and school management functions within a single integrated prevention framework. This framework positions the prevention of digital radicalism as an institutional and collaborative responsibility, rather than solely the task of Islamic Religious Education teachers. However, as this study employs a literature review approach, the findings represent a conceptual synthesis of the reviewed literature and do not yet reflect direct testing of the effectiveness of these strategies in schools. Further research should test the application of this prevention management framework through empirical studies in various educational institutions to identify its implementation, constraints and effectiveness in different contexts.

References

- Agustina, T., Tamara, T., Alfarizi, A., Sufriadi, R., & Febryanto, R. (2025). Pendidikan Agama Islam sebagai Upaya Pencegahan Radikalisme di Kalangan Pelajar. *Jurnal Tinta*, 7(1), 161–170. <https://doi.org/10.35897/jurnaltinta.v7i1.1921>
- Akram, M., & Nasar, A. (2023). Systematic Review of Radicalization through Social Media. *Ege Academic Review*, 23(2), 279–296. <https://doi.org/10.21121/eab.1166627>
- Alazir, A., Juradil, I., Jamilah, S., Faid, A. A., Aini, W., & Bunyamin, B. (2026). Strategi Pembelajaran Pai Berbasis Nilai Multikultural Dalam Membentuk Sikap Toleransi Siswa di Sekolah Menengah. *Kreatif Jurnal Studi Pemikiran Pendidikan Agama Islam*, 24(1), 310–325. <https://doi.org/10.52266/kreatif.v24i1.6412>
- Aldilal, A., Kanande, L. O. M., Halid, Y., & Aminudin, A. (2023). Media Baru dan Paham Radikalisme Pada Kalangan Remaja Di Kota Kendari Sulawesi Tenggara. *The Journal of Society and Media*, 7(1), 1–18. <https://doi.org/10.26740/jsm.v7n1.p1-18>
- Anin, T., Kamlasi, A. Y., Kollo, F. L., Dubu, T. G., Selan, E. M., & Riwu, D. (2025). Peran Media Sosial dalam Mencegah Bahaya Radikalisme di Kalangan Generasi Muda. *JURNAL PENDIDIKAN IPS*, 15(4), 1469–1476. <https://doi.org/10.37630/jpi.v15i4.3667>
- Antaraneews.com. (2025, Desember 31). BNPT: 112 anak teradikalisasi lewat “game online” dan media sosial. Antara News. <https://www.antaraneews.com/berita/5327806/bnpt-112-anak-teradikalisasi-lewat-game-online-dan-media-sosial>
- Arli, F. M. (2025). Pendidikan Agama Islam Sebagai Upaya Pencegahan Radikalisme di Sekolah. *An-Nur: Jurnal Pendidikan Dan Pembelajaran*, 1(3), 567–584. <https://doi.org/10.65802/an-nur.v1i3.86>
- Azhima, F. (2025). Memetakan Radikalisme Pelajar: Analisis Jaringan Sosial (Sna) Terhadap Pengaruh Kelompok Keagamaan di Sekolah. *An-Nur: Jurnal Pendidikan Dan Pembelajaran*, 1(2), 113–127. <https://doi.org/10.65802/an-nur.v1i2.34>
- Bafadhal, O. M., Rahmawati, A., & Santoso, A. D. (2026). The Dynamics of Youth Radicalization: The Mediating Role of Exposure to Political Violence in Shaping Sympathy for Radicalism. *Jurnal Media Dan Komunikasi Indonesia*, 7(1), 117–140. <https://doi.org/10.22146/jmki.106407>
- den Elzen, J. I., Asscher, J. J., Lang, K. M., & Duindam, H. M. (2026). The association between media exposure and violent radicalization of young people: A multilevel meta-analysis. *Aggression and Violent Behavior*, 88, 102141. <https://doi.org/10.1016/j.avb.2026.102141>

- Duindam, H. M., van Loon, A. W. G., & Lösel, F. (2025). Protective factors against extremism and violent radicalization in youth: A multilevel meta-analysis. *Aggression and Violent Behavior*, 85, 102101. <https://doi.org/10.1016/j.avb.2025.102101>
- Echelmeyer, L., Slotboom, M., & Weerman, F. (2023). The Putative Effect of Identity on Extremist Radicalization: A Systematic Review of Quantitative Studies. *Studies in Conflict and Terrorism*. <https://doi.org/10.1080/1057610X.2023.2247621>
- Fadillah, I. U., Harianja, J. A., Putri, W. S., & Setiawan, A. (2025). Analisis Faktor Pemicu Radikalisme Pada Remaja Serta Dampaknya Pada Demokrasi. *Journal of Golden Generation Education*, 1(1), 50–56. <https://doi.org/10.65244/jgge.v1i2.56>
- Faidkholidi, F., & Fajri, Z. (2025). Mitigating the Risk of Radicalization: Management Strategies for Religious Moderation Programs in Islamic Boarding Schools. *Journal of Educational Management Research*, 4(4), 1415–1428. <https://doi.org/10.61987/jemr.v4i4.1066>
- Fanindy, M. N., & Mupida, S. (2021). Pergeseran Literasi pada Generasi Milenial Akibat Penyebaran Radikalisme di Media Sosial. *Millah: Journal of Religious Studies*, 195–222. <https://doi.org/10.20885/millah.vol20.iss2.art1>
- Fauziah, I., Sairin, M., Ananda, K., & Nikmah, R. (2025). Moderasi Beragama Dalam Lingkungan Sekolah Dasar Islam Terpadu: Studi Kasus Pada SDIT Al Munadi Medan Marelان. *Pendalas: Jurnal Penelitian Tindakan Kelas Dan Pengabdian Masyarakat*, 5(3), 275–293. <https://doi.org/10.47006/pendalas.v5i3.642>
- Feddes, A. R., Nickolson, L., van Bergen, N. R. J., Mann, L., & Doosje, B. (2023). Extremist Thinking and Doing: A Systematic Literature Study of Empirical Findings on Factors Associated with (De)Radicalisation Processes. *International Journal of Developmental Science*, 17(1–3), 7–18. <https://doi.org/10.3233/DEV-230345>
- Gereluk, D. (2023a). A Whole-School Approach to Address Youth Radicalization. *Educational Theory*, 73(3), 434–451. <https://doi.org/10.1111/edth.12581>
- Hartmann, D., Wang, S. M., Pohlmann, L., & Berendt, B. (2025). A systematic review of echo chamber research: Comparative analysis of conceptualizations, operationalizations, and varying outcomes. *Journal of Computational Social Science*, 8(2), 52. <https://doi.org/10.1007/s42001-025-00381-z>
- Hasan, M. S., Mujahidin, Azizah, M., & Solechan. (2024). Fostering A Moderate Attitude in Sufi-Based Pesantren Culture. *At-Tadzkir: Islamic Education Journal*, 3(2), 171–188. <https://doi.org/10.59373/attadzkir.v3i2.66>

- Hidana, L. A., Afif, Z. N., Solechan, S., & Decharoen, J. (2026). The Role of the Headteacher in Promoting Religious Moderation in Primary Schools. *At Tadbir: Islamic Education Management Journal*, 4(1), 1–13. <https://doi.org/10.54437/attadbir.v4i1.3006>
- Hidayat, C., Effendi, I., & Zarkasyi, F. I. (2025). Pembentukan Literasi Digital Gen Z Berbasis Nilai Kearifan Lokal dalam Membendung Konten Propaganda Terorisme Siber: *JCIC: Jurnal CIC Lembaga Riset Dan Konsultan Sosial*, 7(1), 1–14. <https://doi.org/10.51486/jbo.v7i1.200>
- Istiqomah, A., Marzuki, M., Sutrisno, C., Samsuri, S., & Aziz, S. A. (2025). Tingkat Kecenderungan Perilaku Ekstremisme Berbasis Aktivitas Digital di Kalangan Mahasiswa. *Ganesha Civic Education Journal*, 7(2), 116–123. <https://doi.org/10.23887/gancej.v7i2.6118>
- Kenyon, J., Baker-Beall, C., & Binder, J. (2023). Lone-Actor Terrorism – A Systematic Literature Review. *Studies in Conflict & Terrorism*, 46(10), 2038–2065. <https://doi.org/10.1080/1057610X.2021.1892635>
- Khakim, M. K. A. (2024). Religious Digital Literacy and Prevention of Radicalism in Schools. *Anjasmoro: Islamic Interdisciplinary Journal*, 2(1), 24–38. <https://doi.org/10.69965/anjasmoro.v2i1.36>
- Kholis, N., Ardica, D., Vahlevi, S. F., Vidiastuti, D. P., & Rafsanjani, A. R. (2025). Penguatan Upaya Deradikalisasi: Pemetaan Pola Penyebaran Paham Radikalisme di Kalangan Siswa Pendidikan Menengah DiMedia Sosial. *Inovasi: Jurnal Diklat Keagamaan*, 19(2), 223–249. <https://doi.org/10.52048/5zchy210>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. SAGE.
- Lock, I., & Ludolph, R. (2020). Organizational propaganda on the Internet: A systematic review. *Public Relations Inquiry*, 9(1), 103–127. <https://doi.org/10.1177/2046147X19870844>
- Mala, F., & Rahman, F. (2024). Unpacking Soft Radicalism among Indonesian State Islamic University Students. *ESENSIA: Jurnal Ilmu-Ilmu Ushuluddin*, 25(2), 44–59. <https://doi.org/10.14421/esensia.v25i2.5826>
- Mariyah, S., Hasibuan, L., Anwar, K., & Rizki, A. F. (2021). Perspektif Pengelolaan Pendidikan Fungsi Pengelolaan (Planning, Organizing, Actuating, Controlling). *Instructional Development Journal*, 4(3), 268–281. <https://doi.org/10.24014/idj.v4i3.18911>
- Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative Data Analysis*. SAGE.
- Mølmen, G. N., & Ravndal, J. A. (2023). Mechanisms of online radicalisation: How the internet affects the radicalisation of extreme-right lone actor terrorists. *Behavioral Sciences of Terrorism and Political Aggression*, 15(4), 463–487. <https://doi.org/10.1080/19434472.2021.1993302>

- Murthi, N. K. (2022). Analisis Potensi Sebaran Paham Radikalisme dalam Proses Perkuliahan Daring di UIN Sunan Ampel Surabaya. *Journal of Integrative International Relations*, 7(1), 21–42. <https://doi.org/10.15642/jiir.2022.7.1.21-42>
- Nafsiyah, F., & Wardan, K. (2024). Peran Pendidikan Agama Islam Dalam Mencegah Radikalisme di Kalangan Remaja. *Al-Rabwah*, 18(2), 093–104. <https://doi.org/10.55799/jalr.v18i2.530>
- Nurhikmah, N. (2024). Educational Management Functions: Planning, Organizing, Actuating, Controlling. *INTIHA: Islamic Education Journal*, 1(2), 82–91. <https://doi.org/10.58988/intiha.v1i2.293>
- Pfundmair, M., Wood, N. R., Hales, A., & Wesselmann, E. D. (2024). How social exclusion makes radicalism flourish: A review of empirical evidence. *Journal of Social Issues*, 80(1), 341–359. <https://doi.org/10.1111/josi.12520>
- Prasetyo, G., Fauziah, Y. R., & Syafii, A. (2025). From Policy to Pedagogy: Religious Moderation as a Counter-Radicalization Strategy in Islamic Education — A Systematic Literature Review. *Jurnal Pendidikan Islam*, 14(2), 233–251. <https://doi.org/10.14421/jpi.2025.142.233-251>
- Putri, N. E. (2023). The Effect of Student Digital Literacy on Radicalism Attitudes at PTKIN in Aceh. *Journal Of Education And Teaching Learning (JETL)*, 5(1), 31–45. <https://doi.org/10.51178/jetl.v5i1.1057>
- Qomariah, N., & Ilyas, N. (2025). Resiliensi Preventif Manajemen Kesiswaan terhadap Risiko Radikalisasi Digital pada Generasi Z di Sekolah Menengah. *Pendiri: Jurnal Riset Pendidikan*, 3(1), 36–49. <https://doi.org/10.63866/pendiri.v3i1.108>
- Raihan, M. (2025). Memetakan Jaringan Transnasional Ideologi Keagamaan di Kalangan Mahasiswa Pendidikan Islam. *AN-NUR: Jurnal Pendidikan Dan Pembelajaran*, 1(2), 197–210. <https://doi.org/10.65802/an-nur.v1i2.45>
- Risius, M., Blasiak, K. M., Wibisono, S., & Louis, W. R. (2024). The digital augmentation of extremism: Reviewing and guiding online extremism research from a sociotechnical perspective. *Information Systems Journal*, 34(3), 931–963. <https://doi.org/10.1111/isj.12454>
- Sari, W. permata, & Fanani, Z. (2025). Menangkal Radikalise Digital Pada Generasi Z. *Pendas : Jurnal Ilmiah Pendidikan Dasar*, 10(04), 323–345. <https://doi.org/10.23969/jp.v10i04.39840>
- Sartika, D., & Famili, N. (2026). Meneguhkan Moderasi Beragama di Era Post-Truth: Analisis Tantangan Hoaks dan Ekstremisme Digital. *Jurnal Penelitian Ilmiah Multidisipliner*, 3(01). <https://ojs.ruangpublikasi.com/index.php/jpim/article/view/1858>
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>

- Solechan, S. (2025). The Role of Local Culture in Preventing Radicalism and Intolerance through the Nyadran Tradition. *Urwatul Wutsqo: Jurnal Studi Kependidikan Dan Keislaman*, 14(1), 19–32. <https://doi.org/10.54437/urwatulwutsqo.v14i1.1815>
- Sukabdi, Z. A., Muzayanah, U., & Syauqillah, M. (2026). Gaming, Digital Identity, and Escalation to Violence: Proposing a Digitally Mediated Radicalization Process Model. *Deviant Behavior*, 0(0), 1–28. <https://doi.org/10.1080/01639625.2026.2717596>
- Williams, T. J. V., & Tzani, C. (2024). How does language influence the radicalisation process? A systematic review of research exploring online extremist communication and discussion. *Behavioral Sciences of Terrorism and Political Aggression*, 16(3), 310–330. <https://doi.org/10.1080/19434472.2022.2104910>
- Wolfowicz, M., Hasisi, B., & Weisburd, D. (2022). What are the effects of different elements of media on radicalization outcomes? A systematic review. *Campbell Systematic Reviews*, 18(2), e1244. <https://doi.org/10.1002/cl2.1244>
- Xiao, Y., & Watson, M. (2019). Guidance on Conducting a Systematic Literature Review. *Journal of Planning Education and Research*, 39(1), 93–112. <https://doi.org/10.1177/0739456X17723971>