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## Redefining the Role of School Principal in the Digital Era: Strategies for instilling Digital Ethics in Generation Alpha

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### A B S T R A C T

The growing use of digital technology among Generation Alpha presents new challenges in shaping character and fostering digital ethics within educational settings. This study aims to examine the strategies and the redefined role of school principals in instilling digital ethics among students at MTsN 1 Madiun. Employing a descriptive qualitative approach with a single case study design, data were collected through interviews, observations, and documentation. Data analysis was conducted through the stages of reduction, presentation, and conclusion drawing using Miles and Huberman's interactive model. The findings reveal that the principal plays a transformative role in shaping students' digital ethics through three main strategies: integrating Islamic values into the school's digital culture (cultural), establishing digital policies and regulations (structural), and strengthening teachers' capacities through training and mentoring (instrumental). The study concludes that the success of cultivating digital ethics is determined by visionary, participatory, and contextual leadership. This research contributes to the enrichment of value-based leadership theory in the context of digital education and offers practical implications for formulating digital ethics policies in faith-based schools.

## 1. Introduction

The rapid development of digital technology has influenced almost every aspect of human life, including education, which now faces new challenges in shaping adaptive and ethically responsible generations. Generation Alpha, referring to children born since 2010, has grown up in a digital ecosystem with unrestricted access to technology and information. Data from the Indonesian Internet Service Providers Association (APJII, 2024) indicates that 79.5% of Indonesia's population is connected to the internet, with the majority of users coming from the 10–24 age

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group. This reality has significant implications for students' learning processes, social behavior, and character development.

One of the main challenges of 21st-century education lies in instilling digital ethics in young people who are highly familiar with the virtual world but often lack sufficient moral control (Sataroh & Febrianti, 2024; Harmoni & Handayani, 2025). According to Indriyani et al., (2025) and Prensky (2012), although digital generations possess advanced technological skills, they have not yet fully developed the maturity to critically filter information and behave ethically in digital spaces. Chaiwchan & Puttaphithakpon (2023) define digital ethics as the awareness to use technology responsibly, safeguard privacy, and demonstrate ethical behavior in digital interactions. Without a strong understanding of digital ethics, students are vulnerable to negative content, cyberbullying, digital plagiarism, and gadget addiction (Dewi, 2023; Simanjuntak & Mei, 2022).

Within the context of Islamic education, madrasahs play a strategic role as they inherently integrate religious values into education, including character building and digital ethics (Luneto, 2023; Yusnita et al., 2023). The school principal, as the leader of the institution, holds a central role in shaping the vision, strategies, and school culture that respond to digital challenges. Nursi et al., (2025) emphasize that principals not only function as administrative managers but also act as change agents who integrate Islamic values and technology into the education system.

Previous studies have demonstrated that transformational and democratic leadership styles can accelerate the integration of digital ethics into school culture, particularly at the primary and secondary levels (Wiyana et al., 2024). However, existing research still tends to emphasize the role of principals while paying less attention to the contributions of teachers and students as internal agents of value internalization within schools (Nurhayati et al., 2022; Zubaidah & Putra, 2022). In collaborative learning environments, however, both teachers and students play a crucial role in reinforcing a participatory culture of digital ethics.

Generation Alpha also exhibits distinct cognitive and social characteristics compared to previous generations, such as a preference for visual and interactive learning as well as a tendency toward lower empathy levels due to excessive digital exposure (Danilova, 2023; George & Odgers, 2015). Therefore, educational approaches must be adapted to their digital-native mindset (Gunawan et al., 2024). Digital ethics should be integrated into character education, instilling values of responsibility and awareness of consequences in the virtual world (Eryandi, 2023; Ribble, 2011). Research by Tertiaavini & Saputra (2022) shows that weak digital ethics understanding contributes to increasing cases of digital misconduct among students, while effective implementation of digital ethics fosters honesty and integrity in virtual interactions (Ainia & Mada, 2024; Rahman & Andriani, 2025).

Effective school leadership in the digital context is also reflected in the ability to formulate adaptive policies, nurture students' character, and supervise the use of digital media in schools (Budiyono, 2023; Januar Mahardhani, 2016). In Islamic education, values such as honesty, responsibility, and courtesy must serve as the

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foundation for technology use (Tabroni et al., 2022). These values can then be integrated into a religious-based curriculum to holistically shape students' character (Suryaningtiyas et al., 2024).

The literature review highlights a research gap concerning the redefinition of the principal's role in cultivating digital ethics among Generation Alpha, particularly within the context of Islamic-based madrasahs. Most studies remain limited to the leadership aspect of principals and have not yet explored the active involvement of the broader school ecosystem. Therefore, this article offers a new perspective by reconstructing principals' strategies in comprehensively shaping a culture of digital ethics in madrasah.

Based on this discussion, the main problem addressed in this study is how school principals implement strategies to instill digital ethics values in Generation Alpha students within the madrasah context. Rather than testing a hypothesis, this study seeks to understand and reconstruct principals' leadership practices in fostering a digital ethics culture, with an emphasis on Islamic values and the characteristics of digital-native learners. The purpose of this article is to provide an in-depth description of principals' strategies in instilling digital ethics at MTsN 1 Madiun, as a representation of madrasahs actively implementing digital transformation in management and learning. This study contributes novelty by integrating transformational leadership, Islamic character education, and digital ethics habituation within the context of secondary madrasah-based education.

## 2. Methodology

This study employed a descriptive qualitative approach with a case study design to explore in depth the strategies and redefined roles of the school principal in cultivating digital ethics at MTsN 1 Madiun. This approach was chosen because it enables a comprehensive understanding of social and cultural contexts and allows for the interpretation of meanings behind the principal's actions and policies (Creswell, 2014). A single embedded case study was considered relevant, as the research focused on one educational institution with sub-focuses on the roles of the principal, teachers, and students in the context of digital ethics development.

Data were collected through in-depth interviews, participant observation, and school policy documentation. The main informants consisted of the principal, the vice principal for curriculum, and guidance and counseling teachers. Semi-structured interviews were conducted to provide flexibility for deeper exploration of leadership dynamics and the implementation of digital ethics policies. Observations were carried out during daily habituation activities, digital literacy programs, and students' use of digital devices in the school environment. The documents analyzed included school digital regulations, extracurricular programs, and records of teacher training activities.

Data analysis followed the stages of data reduction, data display, and conclusion drawing, using Miles and Huberman's (2014) interactive model. Data validity was

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ensured through source and method triangulation as well as member checking with informants to confirm the accuracy of data interpretation. The study also adhered to research ethics, including obtaining informed consent from participants and safeguarding respondent anonymity throughout the data collection and reporting process.

### 3. Results and Discussion

#### *Principal's Strategies in Cultivating Digital Ethics*

MTsN 1 Madiun is a public Islamic junior high school located in Madiun Regency, East Java, Indonesia. The school serves students from diverse socio-economic backgrounds and has actively integrated digital technology into both academic and administrative activities. As part of its digital transformation, MTsN 1 Madiun utilizes online learning platforms, school-managed social media, and digital communication tools to support teaching, learning, and character development. However, the increasing exposure of students—particularly Generation Alpha—to digital media has also raised ethical challenges, such as misinformation, inappropriate content, cyberbullying, and excessive gadget use. These conditions make MTsN 1 Madiun a relevant setting for examining the role of school leadership in cultivating digital ethics within an Islamic educational context. Findings from observations, in-depth interviews with teachers and the principal, and analysis of school documents reveal that MTsN 1 Madiun employs three main strategies in cultivating digital ethics among Generation Alpha students: cultural, structural, and instrumental strategies.

First, the cultural strategy is implemented through the assimilation of Islamic values into the digital culture of the school. As the principal stated during the interview: *"We always emphasize to our students that technology must be used responsibly. Digital media should not be used carelessly, and as a faith-based educational institution, we must always remind students of the boundaries of what is permissible. Therefore, before using their devices, students are encouraged to recite prayers, select halal content, and remain mindful that digital activities are also overseen by Allah SWT."* Through daily practices such as praying before using devices, choosing halal content, and monitoring social media use by guidance counselors and homeroom teachers, the principal emphasizes the importance of technological etiquette. Religious activities such as digital sermons (kultum digital), Islamic-based digital literacy training, and online murojaah programs instill values of honesty, avoiding hoaxes, and refraining from cyberbullying. These findings align with other researchers (Zain & Mustain, 2024; Putri et al., 2025; Sataroh & Febrianti, 2024). Training and Development Human Resources Through Digital Skills at UMKM Bites Baker Malang. *Journal of Educational Sciences*, 9(1), 191-200.), who argue that integrating religious values into digital ethics is highly effective in shaping students' moral, spiritual, and social behavior.

Second, from a structural perspective, the principal holds responsibility for establishing school policies that support the creation of a healthy digital

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environment. As the principal emphasized: "*We have a Code of Conduct for Gadget Use and a Standard Operating Procedure (SOP) on Digital Ethics. These rules are not merely formalities but are continuously socialized to ensure students understand that digital freedom also carries ethical boundaries.*" One such policy is the internal regulation in the form of the Gadget Use Code of Conduct and Digital Ethics SOP, which focus on digital ethics and safety. Additionally, the school has formed a Digital Supervision Team consisting of ICT teachers, guidance counselors, and student council representatives. This team is responsible for monitoring students' digital activities both inside and outside the classroom. Such efforts demonstrate that the principal's role is not only symbolic but also institutional. The school leaders must establish systems that support cultural change in digital practices within their schools (Fullan, 2014; Lestari et al., 2022; Chowdhury, 2025).

Third, from an instrumental standpoint, teachers are tasked with ensuring that digital tools are utilized effectively to instill moral values and build character. The use of technology as an innovative instrument in the digital era is essential not only for improving educational quality but also for reaching students from diverse backgrounds (Bu'tu & Mulde, 2025). The school's official social media platforms and the MTsN 1 Madiun YouTube channel are employed as tools for digital ethics campaigns and education. Students also actively participate in producing educational content containing Islamic moral and ethical messages, such as anti-hoax videos, digital posters, and educational materials on cyberbullying. This student involvement reflects a participatory approach that resonates with the active, visual, and technology-driven characteristics of Generation Alpha (George & Odgers, 2015).

This study supports the argument of (Timan et al., 2022), who assert that spiritual, social, and technological aspects must be integrated into visionary school leadership in the digital era. At MTsN 1 Madiun, the principal applies an integrative approach, demonstrating that digital ethics can be cultivated not only through formal learning but also through value-oriented and context-responsive leadership practices. The strategies employed reflect an ethical-digital leadership model that combines practical benefits, structured policies, and Islamic values. This model is expected to serve as a reference for other madrasahs in addressing the challenges of character education in the age of technology.

This study employed a qualitative case study approach to obtain an in-depth understanding of the principal's role in cultivating digital ethics at MTsN 1 Madiun. Data were collected through observations, document analysis, and semi-structured interviews. The interview participants included the school principal, teachers, and guidance and counseling staff who were directly involved in implementing digital ethics programs. Interviews were conducted face-to-face at the school during scheduled working hours and lasted between 30–60 minutes for each participant. All interviews focused on leadership strategies, policy implementation, challenges, and best practices in fostering ethical digital behavior among students. The collected data were then transcribed, coded, and thematically analyzed to ensure data credibility and consistency across sources.

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Table 1. Interview Questions and Duration

| No | Interview Questions  | Duration      |
|----|--|---------------|
| 1  | How does the principal view the importance of digital ethics for Generation Alpha students?    | 5–10 minutes  |
| 2  | What strategies are implemented by the principal to cultivate digital ethics at MTsN 1 Madiun? | 10–15 minutes |
| 3  | What school policies regulate students' use of digital technology?                             | 5–10 minutes  |
| 4  | How are teachers and staff involved in supervising students' digital behavior?                 | 5–10 minutes  |
| 5  | What challenges are encountered in implementing digital ethics programs at the school?         | 5–10 minutes  |
| 6  | How does Islamic values-based education support digital ethics cultivation?                    | 5–10 minutes  |

### **Implementation at MTsN 1 Madiun**

At MTsN 1 Madiun, the strategy of instilling digital ethics begins with strengthening a digital culture based on Islamic values. The principal encourages the internalization of Islamic ethical principles in the use of technology through daily practices and the application of digital ethics in religious subjects. For example, students are taught about the principle of tabayyun, which means verifying information, when accessing information from the internet. They are also taught to avoid spreading false information and hate speech. According to (Febrianti et al., 2025), religion-based character education is very important because it can be a useful tool for building students' moral awareness in the digital world.

In addition, MTsN 1 Madiun structurally has institutional policies that help build a healthy and moral digital ecosystem. The Digital Code of Conduct, which regulates the time, place, and purpose of gadget use by students, helps the principal enforce strict rules on the use of gadgets at school. To monitor students' online activities, a School Digital Ethics Supervision Team was also formed. This team consists of Guidance and Counseling teachers, ICT teachers, and homeroom teachers. In addition, the digital violation reporting system can be carried out directly or online through platforms such as WhatsApp, which allows teachers and students to openly report cases of technology misuse. This implementation is similar to the idea of distributed leadership, in which various parties participate in decision-making and supervising digital ethics together with school leadership (Sachar, 2025).

MTsN 1 Madiun integrates digital ethics into both intra- and extracurricular activities. Innovative organizations such as PIK-R involve students in creating short educational videos, digital posters, and infographics about what students are allowed to do and what violations must be avoided. Students not only gain a better understanding of digital moral values through these activities, but also learn how to think critically and creatively by using technology. In addition, teachers are trained in digital citizenship learning to help them teach students in a contextual and applicable way. This is in line with the research conducted by Ainia & Mada (2024) and Ribble (2011), which emphasizes the importance of using integrative and participatory approaches in digital ethics education in educational institutions.

### ***Critical Analysis of the Redefinition of the Principal's Role***

The findings at MTsN 1 Madiun reveal a paradigm shift in the role of school principals, from merely administrative functions to becoming agents of digital ethics transformation. The principal is no longer confined to managing curricula and budgets but also acts as a value facilitator, technological innovator, and moral leader in the realm of digital education. In the context of fostering digital ethics among Generation Alpha students, the principal takes an active role in formulating digital literacy policies, cultivating an Islamic digital culture, and encouraging the involvement of all school stakeholders in ethical and preventive digital supervision. This redefinition reflects an adaptive response to the evolving educational landscape brought about by the digital revolution and the growing social complexities of students.

This role becomes increasingly challenging in the digital era, as principals are required to address not only technical issues but also more complex ethical, ideological, and sociocultural dimensions. At MTsN 1 Madiun, the principal is expected to bridge Islamic values with technological advancements to avoid a dichotomy between morality and modernity. This is consistent with the findings of Zahro (2024), which emphasize that school leadership in the digital era must adopt a values-based leadership approach and serve as ethical role models in the use of technology. These findings also align with the concept of pedagogical digital leadership proposed by Adi Asmara dan Winda Ramadianti (2023), which underscores the principal's role as a visionary guide in shaping inclusive, ethical, and sustainable digital education.

However, the redefinition of the principal's role has not been uniformly implemented across many educational institutions. In this regard, MTsN 1 Madiun demonstrates a more comprehensive approach encompassing regulation, education, and stakeholder empowerment. Research by Nursi et al., (2025) indicates that many principals remain unprepared in terms of digital literacy and managerial capacity to fully implement this transformation. Therefore, policy support from relevant ministries and capacity-building programs for principals, grounded in digital ethics, are urgently needed. To conceptualize this paradigm shift more clearly, the following table compares the traditional role of principals with their redefined role in the digital era, based on the case of MTsN 1 Madiun:

Table 2. Redefinition of the Principal's Role in the Digital Era(Case Study at MTsN 1

| <b>Role Aspect</b>     | <b>Traditional Principal</b>                                      | <b>Digital Era Principal (Redefinition)</b>  |
|------------------------|---|--|
| Main Focus             | Administrative tasks and physical school management (Suaeb, 2019) | Value transformation, digital literacy, and digital ethics                         |
| Leadership Orientation | Instructive and bureaucratic (Syahputra et al., 2023)             | Collaborative, innovative, and value-based leadership rooted in Islamic principles |

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|                                     |   |  |
|-------------------------------------|---|--|
| Use of Technology                   | Passive, limited to administrative tools (Apriani et al., 2025)                       | Active, as a medium for shaping school character and culture       |
| Relationship with Stakeholders      | Formal and one-directional (Prado Tuma & Spillane, 2019)                              | Participatory and community-based (including parental involvement) |
| Development of Digital Ethics       | Absent from policy agenda (Mardiah et al., 2024)                                      | Prioritized in curriculum and policy                               |
| Role in Student Character Formation | Delegated to religious teachers or guidance and counseling teachers (Febriyani, 2020) | Direct involvement through programs and role modeling              |

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The paradigm shift in the role of school principals from traditional to transformational, as emphasized by Fullan (2014), highlights that school leadership is no longer confined to administrative functions but must maximize impact through three key dimensions: building teacher capacity, fostering a collaborative culture, and focusing on instructional learning. The table above illustrates that the transformational role of principals is not limited to policy control but extends to serving as facilitators of change who inspire and drive innovation. In the context of MTsN 1 Madiun, this shift is reflected in the principal's efforts to integrate digital technology into character development, digital literacy, and Islamic culture. Through a collaborative approach involving teachers, students, and parents, the principal acts as an agent of transformation who ensures that technology is utilized not merely as an administrative tool, but as a strategic medium for instilling ethical, moral, and spiritual values in line with the needs of the digital generation.

#### 4. Conclusion

This study demonstrates that the principal of MTsN 1 Madiun plays a central and transformative role in instilling digital ethics among Generation Alpha students through cultural, structural, and instrumental strategies grounded in Islamic values. This approach reflects a redefinition of the principal's role from a mere administrative manager to a value-oriented leader, technological innovator, and moral guide in the digital era. The strategies implemented emphasize not only technological proficiency but also the collaborative cultivation of character and an Islamic digital culture. As a result, positive outcomes are observed in students' digital behavior, teachers' competencies, and the establishment of a school ecosystem capable of addressing digital challenges. Nevertheless, this research is limited to a single case study and employs a purely qualitative approach, thereby restricting its generalizability. Future research is recommended to conduct comparative studies across various madrasahs using mixed-method approaches. The involvement of parents, digital communities, and analysis of the national curriculum are also crucial to strengthening a values-based framework of digital ethics. Longitudinal studies may further provide insights into the long-term impacts of these strategies on students' character formation. Thus, the integration of digital ethics into educational leadership requires a holistic and sustainable approach.

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Principals in the digital era must serve as role models of values, agents of change, and guardians of morality within the Islamic digital learning ecosystem.

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