AN INTERDISCIPLINARY EPISTEMOLOGY OF DIGITAL ETHICS FOR SHAPING GENERATION Z MORALITY IN ISLAMIC EDUCATION

Intan Umi Khofifah[1]
Universitas Saiffudin Zuhri Purwokerto, Indonesia (Intanhafiz722@gmail.com)

Rizky Nur Khanifah
Institut Agama Islam Ma'arif Jambi, Indonesia (riskinurkhanifa@gmail.com)

Rohmat Ilham Romadhon
Institut Agama Islam Ma'arif Jambi, Indonesia (iromadhon855@gmail.com)

Kata Kunci:	ABSTRAK
Digital ethics epistemology; Generation Z; Islamic education; interdisciplinary integration; digital epistemic awareness	**Tujuan**: Penelitian ini merumuskan epistemologi etika digital dalam pendidikan Islam untuk membentuk moralitas Generasi Z sebagai digital natives yang menghadapi tantangan seperti cyberbullying, disinformasi, dan krisis identitas akibat filter bubble serta dikotomi keilmuan agama-umum. **Metode:** Dengan pendekatan kualitatif-filosofis berbasis content analysis dan kerangka integratif-interkonektif. Penelitian mengintegrasikan sumber-sumber interdisipliner secara eksplisit: (1) ayat-ayat Al-Qur'an beserta tafsir klasik (Tafsir Ibnu Katsir dan Tafsir Al-Mishbah); (2) literatur filsafat epistemologi kontemporer (konsep truth, justification, dan epistemic vices); serta (3) kajian sains empirik tentang algoritma media sosial, big data, psikologi digital, dan filsafat teknologi. **Hasil:** Hasil utama adalah model pendidikan Islam berbasis tiga pilar: normativitas Al-Qur'an (misalnya prinsip qaulan sadīdan pada Q.S. An-Nisa': 9), rasionalitas filsafat, dan empirisme sains. **Kesimpulan:** Kontribusi teoretis utama penelitian ini adalah perumusan kerangka epistemologi etika digital yang melampaui pendekatan normatif konvensional, dengan mengembangkan kesadaran epistemik digital pada Generasi Z yaitu kemampuan membedakan haq dan batil serta bertanggung jawab etis di ruang virtual sehingga menghasilkan digital integrity yang kokoh bagi generasi muslim di era digital.

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[1] Correspondence author

Keywords:	ABSTRACTS
Digital ethics epistemology; Generation Z; Islamic education; interdisciplinary integration; digital epistemic awareness	**Purpose**: This study formulates a digital ethics epistemology within Islamic education to shape the morality of Generation Z as digital natives facing challenges such as cyberbullying, disinformation, and identity crises due to filter bubbles, exacerbated by the dichotomy between religious knowledge (normativity) and general knowledge (historicity and empiricism). **Method:** Employing a qualitative-philosophical approach based on content analysis and an integrative-interconnective framework. The research explicitly integrates interdisciplinary sources: (1) Qur'anic verses along with classical tafsirs (Tafsir Ibn Kathir and Tafsir Al-Mishbah); (2) contemporary epistemological philosophy literature (concepts of truth, justification, and epistemic vices); and (3) empirical scientific studies on social media algorithms, big data, digital psychology, and philosophy of technology. **Result:** The main result is an Islamic education model based on three pillars: Qur'anic normativity (e.g., the principle of qaulan sadīdan in Q.S. An-Nisa': 9), philosophical rationality, and scientific empiricism. **Conclusion:** The primary theoretical contribution is the formulation of a digital ethics epistemological framework that transcends conventional normative approaches, fostering digital epistemic awareness in Generation Z—the ability to distinguish between haq and batil while acting ethically responsible in virtual spaces—thus producing robust digital integrity for Muslim youth in the digital era.

A. INTRODUCTION

Islam, as a religion of rahmatan lil 'ālamīn, exerts a profound influence on various aspects of human life, including education and moral formation. The interdisciplinary approach that integrates religious sciences with general sciences has been a hallmark of Islamic thought since the classical era. Human rationality serves as an important bridge between faith and knowledge, while integrative learning has proven effective in enhancing critical thinking skills and producing positive cognitive and non-cognitive outcomes (Ashari, Abdul Latif, et al., 2025). Generation Z, born and raised amid the digital revolution, is universally recognized as digital natives (Ratih, V. W., 2021). For them, technology is not merely a tool but the primary environment for socialization, learning, and worldview formation. These characteristics are marked by constant connectivity, multitasking proficiency, and a strong tendency to receive information visually and rapidly (Dariyo, Agoes, et al., 2024).

However, high dependence on the digital world also gives rise to complex moral challenges, such as cyberbullying, the massive spread of hoaxes and disinformation, self-esteem crises rooted in digital validation, digital narcissism, and the phenomenon of Fear of Missing Out (FOMO) (Hidayat, Komaruddin, et al., 2019; Ghufron, M. Nur & Amin Nasir, 2025). Social media algorithms that create filter bubbles and echo chambers further hinder critical thinking and social tolerance among Generation Z (Syafi'i & Ahmad, 2022). Islamic education in Indonesia has not yet fully provided comprehensive responses to these challenges. This shortfall stems from an epistemological dichotomy that separates religious sciences from general sciences (Abdullah, M. Amin, 2004), resulting in moral guidance that tends to be normative and less relevant to the digital realities faced by Generation Z.

Therefore, this study aims to formulate an integrative-interconnective epistemological framework for digital ethics in Islamic education by integrating Qur'anic normativity, philosophical rationality, and scientific empiricism.

Research Questions

1. How can the Qur'an, philosophy, and science be interconnected to construct an epistemological framework for digital ethics in Islamic education?
2. How can an interdisciplinary digital ethics model be structured and applied as a solution to the moral challenges faced by Generation Z in digital spaces?

Research Objectives
1. To analyze and formulate an epistemological framework for digital ethics that integrates Qur'anic normativity, philosophical rationality, and scientific empiricism.
2. To develop an Islamic education model that cultivates digital epistemic awareness in Generation Z as a means to address contemporary moral challenges in virtual spaces.

The uniqueness of this study lies in its effort to bridge the epistemological gap in digital ethics through an integrated interdisciplinary approach, distinguishing it from previous studies that focused more on normative-theological approaches or merely practical digital literacy.

B. METHOD

This study is a library research with a conceptual-theoretical nature, not empirical. The approach employed is qualitative-philosophical (Sugiyono, 2017). The primary method is Systematic Literature Review (SLR) to comprehensively collect, analyze, and synthesize relevant academic literature (Jaelani & Cecep, 2021). The analytical framework adopts the integrative-interconnective paradigm proposed by M. Amin Abdullah (2006), which aims to overcome the dichotomy of knowledge through conceptual integration and thematic interconnection between normative values (Islamic sources such as the Qur'an and tafsir), philosophical rationality, and empirical facts from contemporary science. This conceptual-theoretical approach focuses on constructing a new framework of thought based on literature synthesis, without involving field data collection or empirical hypothesis testing, thereby emphasizing the exploration of ideas and theoretical models relevant to the context of Islamic education in the digital era (Moleong, 2017).

Inclusion and Exclusion Criteria

To ensure the quality, relevance, and timeliness of the literature, the following inclusion and exclusion criteria are clearly established:

Inclusion Criteria Publication year range: 2015–2025 (to capture contemporary issues such as digital ethics and Generation Z morality), except for timeless classical Islamic primary sources (e.g., classical tafsir and hadith books). Types of sources: Indexed scholarly journal articles (SINTA, Scopus, or equivalent), academic books from accredited publishers, proceedings from national/international conferences, classical and contemporary Qur'anic tafsirs (e.g., Tafsir Ibn Kathir and Tafsir Al-Mishbah), and epistemology philosophy and digital ethics literature from credible sources. Language: Indonesian and English.

Thematic relevance: Sources discussing digital ethics from an Islamic perspective, integrative epistemology, Generation Z morality, or related concepts such as qaulan sadīdan, filter bubbles, and digital integrity. Exclusion Criteria Publications before 2015 (except classical Islamic heritage). Non-academic sources (e.g., popular news articles, blogs, social media opinions, or non-peer-reviewed reports). Literature lacking dimensions of ethics, epistemology, or Islamic education. Low-quality

publications (e.g., from predatory publishers or without a review process). Literature searches were conducted through databases such as Google Scholar, Portal Garuda, SINTA, Scopus, and digital libraries of Islamic educational institutions in Indonesia.

Analysis Procedure and Analytical Rigor The SLR procedure consists of four main stages: Determining the scope and searching literature using structured keywords in Indonesian and English (e.g., "Etika Digital Islam", "Epistemologi Integratif Islam", "Moralitas Generasi Z", "Qaulan Sadīdan Digital", "Islamic Digital Ethics", "Generation Z Morality"). Qualitative-philosophical content analysis (Sugiyono, 2017), classifying data into three main themes: normativity, rationality, and empiricism. Synthesis and interpretation through an integrative-interconnective approach. Formulation of a conceptual model of digital epistemic awareness for Generation Z. Analytical rigor is maintained through thematic validation, which includes: Source triangulation (cross-comparison between Islamic normative literature, Western/Eastern philosophy, and empirical science). An iterative process until thematic saturation is achieved (no new themes emerge). This validation ensures conceptual validity by examining consistency across sources, avoiding interpretive bias, and enhancing the reliability of theoretical findings.

C. RESULT AND DISCUSSION

The Relationship between Epistemology, Digital Ethics, and Islamic Education

The ontemporary Islamic education is increasingly relevant as a value system and praxis that not only transmits knowledge but also holistically shapes human personality. Tauhid, as the core of Islamic teaching, plays a fundamental role in forming a Muslim personality by strengthening self-concept, internal locus of control, and self-efficacy (Alya Mahda Amalia, 2021). The Qur'anic emphasis on adab (refinement of character) and ta'dīb (educative discipline) underscores the unity of knowledge, morality, and spirituality (Muhammad Nasir & Sunardi, 2025).

An interdisciplinary approach that dialogues Qur'anic cosmology with modern scientific theories (Big Bang, embryology, geology) enriches Muslim understanding of reality (Rofiqi Akrima Suheri, 2025). Western epistemology tends to be rooted in rationality and empiricism, whereas Islamic epistemology places revelation (naqlī) as the primary foundation balanced by reason ('aqlī) through inductive and deductive methods within a value framework defined by revelation (Astrid Veranita Indah, 2025).

In the digital era, the abundance of information without moral filtering poses a severe challenge. Without adab, students may pursue instant answers, engage in plagiarism, or become overly dependent on technology. Seyyed Hossein Nasr warns that technology, when devoid of wisdom (ḥikmah), risks spiritual alienation and dehumanisation (Herdiana et al., 2025). An Interdisciplinary Islamic Education Model for Generation Z Digital Ethics

Islamic ontology acknowledges multidimensional reality, implying the need for transdisciplinary curriculum and learning where knowledge is constructed from revelation, reason, and spiritual experience. The transdisciplinary Islamic education method integrates bayānī (textual), burhānī (rational-demonstrative), 'irfānī (intuitive-spiritual), and tajrībī (empirical-experimental) approaches (Budi Jatmiko & Sri Wahyuni, 2025). Technologies such as augmented reality (AR) and virtual reality (VR) enable authentic learning experiences (e.g., virtual visits to Masjid al-Haram or Bayt al-

Ḥikmah). Blended learning designed with adab and maqāṣid considerations simultaneously enhances academic achievement and spiritual development.

The Prophetic epistemology represents the harmonious integration of revelation, reason, and empirical observation – akin to a "Tree of Knowledge" where revelation provides roots and ethical boundaries, reason supplies the trunk of critical inquiry, and empirical science yields branches and fruits of practical application (Deddy Yusuf Yudhyarta, 2025). Digital Ethics from the Qur'anic Perspective (Normative Aspect) The Qur'an offers timeless ethical principles adaptable to contemporary digital contexts. Key principles include: Avoidance of ghibah (backbiting) and fitnah (slander) in digital spaces (Q.S. Al-Hujurat: 12). Principle of al-mas'ūliyyah (accountability) for every digital action (Q.S. Al-Isra': 36). Tabayyun (verification) before disseminating information (Q.S. Al-Hujurat: 6).

Relevant Qur'anic Verses on the Morality of Generation Z in the Digital Era Generation Z, as digital natives, faces moral challenges such as the spread of hoaxes, cyberbullying, and a lack of responsibility in using social media. The Qur'an provides timeless ethical guidance that remains relevant to this context.

QS. Al-Hujurat (49): 6 Arabic:

يٰٓاَيُّهَا الَّذِيْنَ اٰمَنُوْٓا اِنْ جَاۤءَكُمْ فَاسِقٌۢ بِنَبَاٍ فَتَبَيَّنُوْٓا اَنْ تُصِيْبُوْا قَوْمًاۢ بِجَهَالَةٍ فَتُصْبِحُوْا عَلٰى مَا فَعَلْتُمْ نٰدِمِيْنَ

Translation: "O you who have believed, if there comes to you a disobedient one with information, investigate, lest you harm a people out of ignorance and become, over what you have done, regretful." (Ministry of Religious Affairs of the Republic of Indonesia).

Relevance: The principle of tabayyun (verification) serves as digital information ethics for Generation Z, preventing the spread of hoaxes and disinformation on platforms such as TikTok or X (Twitter).

QS. Al-Hujurat (49): 11-12

يٰٓاَيُّهَا الَّذِيْنَ اٰمَنُوْا لَا يَسْخَرْ قَوْمٌ مِّنْ قَوْمٍ عَسٰٓى اَنْ يَّكُوْنُوْا خَيْرًا مِّنْهُمْ وَلَا نِسَاۤءٌ مِّنْ نِّسَاۤءٍ عَسٰٓى اَنْ يَّكُنَّ خَيْرًا مِّنْهُنَّ ۚ وَلَا تَلْمِزُوْٓا اَنْفُسَكُمْ وَلَا تَنَابَزُوْا بِالْاَلْقَابِۗ بِئْسَ الِاسْمُ الْفُسُوْقُ بَعْدَ الْاِيْمَانِۚ وَمَنْ لَّمْ يَتُبْ فَاُولٰۤئِكَ هُمُ الظّٰلِمُوْنَ يٰٓاَيُّهَا الَّذِيْنَ اٰمَنُوا اجْتَنِبُوْا كَثِيْرًا مِّنَ الظَّنِّ اِنَّ بَعْضَ الظَّنِّ اِثْمٌ وَّلَا تَجَسَّسُوْا وَلَا يَغْتَبْ بَّعْضُكُمْ بَعْضًاۗ اَيُحِبُّ اَحَدُكُمْ اَنْ يَّأْكُلَ لَحْمَ اَخِيْهِ مَيْتًا فَكَرِهْتُمُوْهُۗ وَاتَّقُوا اللّٰهَ ۗاِنَّ اللّٰهَ تَوَّابٌ رَّحِيْمٌ

Translation: "O you who have believed, let not a people ridicule [another] people; perhaps they may be better than them... And do not insult one another and do not call each other by [offensive] nicknames... And do not spy or backbite each other." (Al-Qur'an Al-Karim. 2019).

Relevance: The prohibition against ridiculing, insulting, and backbiting directly counters cyberbullying, cancel culture, and body shaming on social media.

QS. Al-Isra' (17): 36

وَلَا تَقْفُ مَا لَيْسَ لَكَ بِهٖ عِلْمٌ ۗاِنَّ السَّمْعَ وَالْبَصَرَ وَالْفُؤَادَ كُلُّ اُولٰۤئِكَ كَانَ عَنْهُ مَسْئُوْلًا

Translation: "And do not pursue that of which you have no knowledge. Indeed, the hearing, the sight, and the heart—about all those [one] will be questioned." Relevance: This verse emphasizes accountability for every digital action (sharing, liking, commenting), reminding Generation Z that all uses of the senses and heart in the virtual world will be held accountable.

Implications for Islamic Education

These verses have significant implications for Islamic education in shaping the morality of Generation Z in the digital era: Integration of the principles of tabayyun and

responsibility (mas'uliyyah) into the digital literacy curriculum, such as teaching source verification before sharing information, to address hoaxes and disinformation. Strengthening character education through prohibitions against cyberbullying (based on QS. Al-Hujurat: 11-12), using blended learning methods that combine technology (AR/VR) with Islamic adab values, thereby building digital epistemic awareness (the ability to distinguish haq from batil in virtual spaces).

A transdisciplinary approach that integrates Qur'anic normativity with digital scientific empiricism, resulting in robust digital integrity for the Muslim generation. Islamic education must be adaptive, contextual, and preventive in addressing the moral crisis of Generation Z, with these verses serving as the primary foundation.

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Khoirunnisa, H. P. S., et al. (2025). The role of Islamic education in overcoming the negative impacts of globalization on the character of Generation Z. QOSIM: Jurnal Pendidikan Sosial & Humaniora, 3(2), 790–800.

Restiana, A. (2025). The meaning of tabayyun as information ethics in QS. Al-Hujurat verse 6 (Study of Ma'nā Cum-Maghzā hermeneutics). Undergraduate thesis, UIN Prof. Kiai Haji Saifuddin Zuhri.

Ronaydi, M. (2024). Virtual communication ethics: Normative solutions from Surah Al-Hujurat verse 11 in addressing cyberbullying. J-KIs: Jurnal Komunikasi Islam, 5(2), 100-120.

Shihab, M. Q. (2002). Tafsir Al-Misbah: Messages, impressions, and harmony of the Qur'an. Jakarta: Lentera Hati.

Contemporary mufassirūn analogise cyber-crimes to traditional prohibitions of ghibah and fitnah (Ahmad Hamdan, 2024). Neuroscientific findings reveal that excessive social media use strengthens neural pathways prioritising instant gratification, weakening prefrontal cortex functions responsible for self-control. Spiritual practices of ṣabr and tafakkur, empirically proven to enhance prefrontal activity, offer an Islamic neurosaintific approach to digital self-restraint (Dede Pitri et al., 2025). Models such as TPACK and SAMR (Puentedura) provide practical frameworks for teachers to progressively integrate technology – from simple substitution to complete redefinition of learning tasks – while preserving Islamic ethical objectives (Zulfiani & Iwan Permana Suwarna, 2025).

Generation Z (born 1997–2012) has grown up immersed in the internet, social media, and rapidly evolving digital culture. Their moral epistemology is no longer primarily shaped by traditional authorities (parents, teachers, religious institutions), but by "digital morality" derived from online communities, influencers, meme culture, and platform algorithms. This phenomenon is often described as "crowd-sourced morality" or bottom-up moral formation.

In Indonesia and many other contexts, one of the most widely used character education frameworks remains TRACK (Trustworthy, Respectful, Accountable, Caring, Kindness), an approach rooted in universal values and heavily influenced by Western character education models (e.g., Character Counts! and Thomas Lickona's work). This

raises a critical question: how relevant is the TRACK framework in an era dominated by Generation Z's digital moral epistemology?

This study produces conceptual findings in the form of an interdisciplinary digital ethics epistemology model for Islamic education targeted at Generation Z. The main findings are as follows:

Integrative-Interconnective Three-Pillar Model

This model integrates three main pillars:

Qur'anic Normativity (naqlī aspect): Timeless ethical principles such as avoiding ghibah (backbiting) and fitnah (slander) (Q.S. Al-Hujurat: 12), al-mas'ūliyyah (accountability) (Q.S. Al-Isra': 36), and tabayyun (verification) (Q.S. Al-Hujurat: 6), adapted to digital contexts (Ahmad Hamdan, 2024). Philosophical Rationality ('aqlī aspect): The burhānī approach and prophetic epistemology that harmoniously balances revelation and reason. Scientific Empiricism (tajrībī aspect): Integration of neuroscience findings on social media impacts and educational technologies such as TPACK and SAMR (Zulfiani & Iwan Permana Suwarna, 2025; Dede Pitri et al., 2025).

"Tree of Knowledge" Metaphor as Conceptual Framework Prophetic epistemology is depicted as a "Tree of Knowledge": Roots: Qur'anic revelation (normativity and ethical boundaries). Trunk: Rational intellect (critical inquiry). Branches and Fruits: Empirical science and practical applications in the digital era (Deddy Yusuf Yudhyarta, 2025).

Transdisciplinary Approach in Islamic Education

Integration of bayānī (textual), burhānī (rational), 'irfānī (intuitive-spiritual), and tajrībī (empirical-experimental) approaches, utilizing technologies such as AR/VR and blended learning for authentic experiences (Budi Jatmiko & Sri Wahyuni, 2025).

Table 1. Digital Moral Epistemology of Generation Z vs. TRACK Character Education

Aspect	Digital Moral Epistemology of Generation Z	Traditional TRACK Framework	Gap / Challenge
Source of Moral Authority	Online communities, influencers, viral posts, subreddits, TikTok For You Page	Teachers, parents, religious texts, school values	Gen Z trusts "peer-validated truth" more than formal authority
Method of Determining Right/Wrong	"Vibes," emotional reasoning, comment-section ratios, cancel culture	Universal moral principles, deductive reasoning, religious teachings	TRACK perceived as rigid, normative, and "outdated"
Speed of Moral Formation	Extremely rapid (can go viral in hours)	Slow and gradual through long-term experience and reflection	Gen Z can shift moral stance instantly when new information emerges
Form of Moral Expression	Memes, infographics, X/Twitter threads, Instagram stories	Classroom discussions, reflective journals, exemplary stories	TRACK feels "cringe" and unrelatable to digital natives
Moral Sanctions	Cancel culture, ratio attacks, doxxing, social death	Teacher warnings, suspensions, parental punishment	Digital sanctions are far harsher and permanent (digital footprint)
Core Values Considered Important	Authenticity, social justice ("woke" culture), mental health, inclusivity	Trustworthy, Respectful, Accountable, Caring, Kindness	Partial overlap (caring=mental health support), but Gen Z prioritizes "being real" over obedience
Real-World Example	Movements such as #JusticeForAudrey, #BlackLivesMatter, brand boycotts	Friday cleanliness programs, exemplary student awards	The same issue can be addressed in radically different ways

These findings are non-empirical in nature, purely conceptual-theoretical, constructed through literature synthesis without primary data collection or empirical testing. The conceptual findings above interpret the relationship between epistemology, digital ethics, and Islamic education in the context of Generation Z. Contemporary

Islamic education, with tauhid as its core, offers holistic personality formation that overcomes the dichotomy of knowledge (Muhammad Nasir & Sunardi, 2025; Alya Mahda Amalia, 2021). Interdisciplinary dialogue between Qur'anic cosmology and modern science enriches Muslim understanding of reality, where Islamic epistemology balances revelation with reason and empiricism (Rofiqi Akrima Suheri, 2025; Astrid Veranita Indah, 2025).

In the digital era, challenges such as information abundance without adab lead to risks of plagiarism, technology dependence, and spiritual alienation (Herdiana et al., 2025). The three-pillar model transcends conventional normative approaches by integrating neuroscience (self-control through ṣabr and tafakkur) and digital pedagogy (TPACK/SAMR), thereby fostering digital epistemic awareness in Generation Z—the ability to distinguish haq from batil in virtual spaces.

The primary theoretical implication is the relevance of this model to Generation Z's digital moral epistemology, which is more influenced by online communities and algorithms than traditional authorities. The TRACK framework (Trustworthy, Respectful, Accountable, Caring, Kindness), although based on universal values, is less responsive to this "crowd-sourced morality." The proposed interdisciplinary model is more contextual, emphasizing adab, maqāṣid, and transdisciplinary integration to produce robust digital integrity.

Overall, this study contributes to the development of the integrative-interconnective paradigm (M. Amin Abdullah, 2006) in addressing digital moral challenges, although the findings are non-empirical and require further empirical validation in the future.

Brief Analysis

Although the substantive values of TRACK (honesty, responsibility, care) remain universally relevant, their delivery method and epistemological legitimacy no longer resonate with Generation Z. Members of this generation rarely ask, "Is this right according to my teacher or religion?" Instead, they ask, "Does this feel valid according to my timeline and my online community?" Consequently, TRACK-based education is frequently viewed as top-down, normative, and inauthentic.

Emerging Solutions Adopted by Educators

1. "TRACK Goes Digital": repackaging TRACK values in memes, short-form videos, and educational threads.
2. Employing young influencers or content creators as peer educators.
3. Creating anonymous discussion spaces on Discord or Reddit so students can speak freely without fear of cancellation.

Gambar 1. 2 Framework Model SAMRThe SAMR Model
[Adapted from Puentedura 2006]

Substitution, The simplest form of integration. Technology replaces a traditional tool without changing pedagogy or learning outcomes. (Puentedura, Ruben R. 2010). Augmentation, (Halminton, et., al. 2018). The same task is performed, but technology adds meaningful functional improvements (e.g., instant feedback, cloud storage, accessibility features). Still enhancement, not transformation. Modification, the task itself is redesigned. Collaboration, data analysis, and multimedia become integral to the assignment. This is the gateway to true transformation. Redefinition,Learning activities emerge that were impossible in a pre-digital environment: global collaboration in real time, immersive VR simulations, student-created content published to authentic worldwide audiences, AI-coached personalized pathways, etc.

This study yields several key **conceptual findings** that are **non-empirical** in nature, based on theoretical synthesis from various disciplines. These **findings** are summarized as follows:

1. **Model of Digital Moral Epistemology for Generation Z versus TRACK**

The substantive values of TRACK (honesty, responsibility, care) remain universally relevant. However, their delivery methods and epistemological legitimacy no longer align with Generation Z. This generation tends to validate moral values based on their "timeline" and online communities, rather than traditional authorities such as teachers or religion. Consequently, TRACK-based education is often perceived as top-down, normative, and inauthentic.

2. **Emerging Solutions Adopted by Educators**

Several practical approaches have emerged to integrate TRACK values into the digital era:
- "TRACK Goes Digital": Repackaging TRACK values in the form of memes, short videos, and educational threads.
- Involving young influencers or content creators as peer educators.
- Creating anonymous discussion spaces on platforms like Discord or Reddit to avoid the risk of "cancellation."

3. **SAMR Technology Integration Framework**

The SAMR model serves as a conceptual foundation for classifying levels of technology integration in moral education (Puentedura, Ruben R. 2010) :

- Substitution: Technology replaces traditional tools without changing pedagogy.
- Augmentation: Technology adds meaningful functional improvements (e.g., instant feedback).
- Modification: Redesign of tasks with integration of collaboration and multimedia.
- Redefinition: New learning activities that were previously impossible, such as real-time global collaboration or student-created content for worldwide audiences.
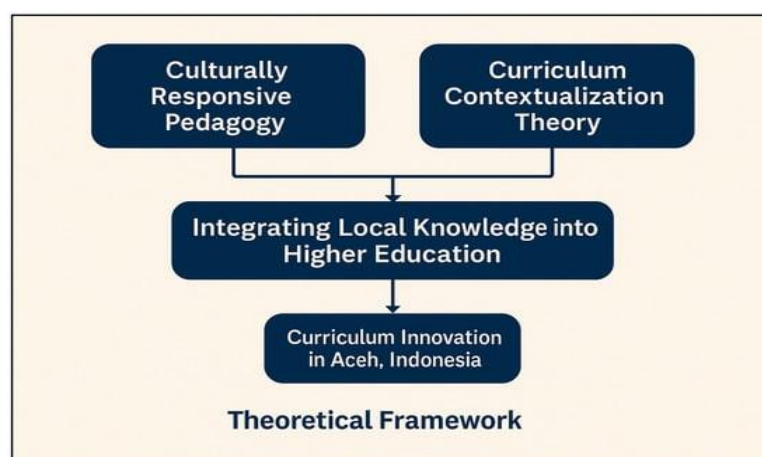
Figure 1 below summarizes the proposed interdisciplinary conceptual framework, which integrates Qur'anic ethics, philosophy of science, neuroscience, and digital pedagogy in the context of Generation Z's moral epistemology. This framework also illustrates the flow of TRACK value integration through digital technology (adapted from the SAMR model).
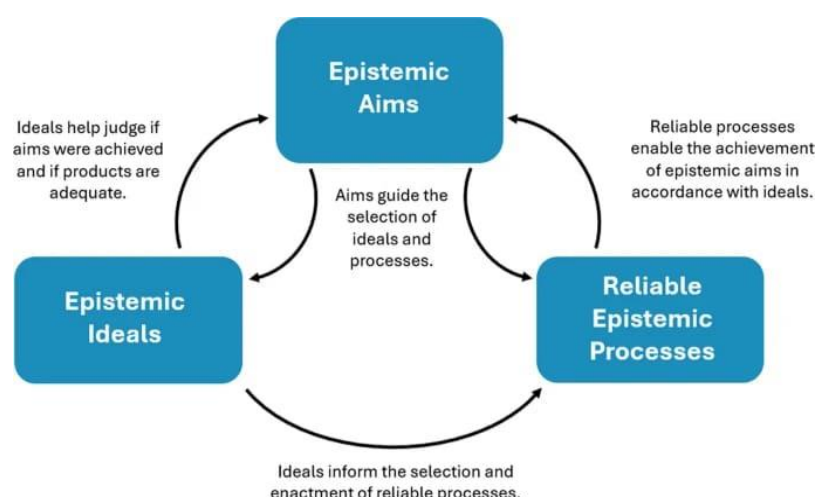
Figure 1.

SAMR Model: A Practical Guide for K-12 Classroom Technology Integration | PowerSchool

Figure 1. SAMR framework as the basis for technology integration in digital moral education Source: PowerSchool, adapted for the TRACK and Generation Z context (PowerSchool. 2021).

SAMR Model: A Practical Guide for K-12 Classroom Technology Integration | PowerSchool

Figure 2. Example of an interdisciplinary conceptual framework integrating local/traditional knowledge such as Qur'anic ethics) with modern education (Source: Adapted from related models for the TRACK digital context (Amiruddin, et al. 2025).

A Framework for Participatory Creation of Digital Futures: A Longitudinal Study on Enhancing Media Literacy and Inclusion in K-12 Through Virtual Reality

Figure 3. Interdisciplinary epistemological framework relevant to moral knowledge growth in the digital era Source: Adapted from Springer-related models for Generation Z moral epistemology (Barzilai, Sarit, and Clark A. Chinn. 2024).

Discussion

The conceptual findings above indicate an epistemological misalignment between traditional TRACK-based moral education and the way Generation Z processes moral validity in digital spaces. This interpretation implies that universal values such as honesty, responsibility, and care need to be recontextualized to remain relevant, rather than discarded. The application of the SAMR model provides theoretical implications that true transformation in digital moral pedagogy occurs at the Modification and Redefinition levels, where technology serves not merely as a substitute tool but as a creator of new, authentic learning experiences for Generation Z. Emerging solutions

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such as "TRACK Goes Digital" and the use of influencers reflect a shift from normative to participatory approaches, aligning with Qur'anic ethical principles on wise da'wah and neuroscientific insights on moral habitus formation through repeated experiences.

Theoretically, this interdisciplinary model enriches the philosophy of Islamic education by blending primary sources from the Qur'an and hadith with contemporary perspectives, thereby avoiding the dichotomy between tradition and modernity. However, it must be emphasized that these findings are non-empirical, based on conceptual analysis and synthesis of secondary literature, thus requiring further empirical validation through future field research.

The practical implication is the need for educators to shift from top-down approaches to digital-collaborative ones, in order to build epistemological legitimacy perceived as authentic by Generation Z.

CONCLUSION

Digital ethics in Islamic education offers a holistic solution for shaping the morality of Generation Z through the integration of Qur'anic normativity, scientific insights, and philosophical rationality. This interdisciplinary framework prevents moral degradation caused by uncontrolled technology while fostering the development of noble character (akhlak mulia) in the digital era. Nevertheless, this study has several limitations. The findings are conceptual and non-empirical in nature, lacking validation through field data or empirical testing. The scope of the discussion is limited to theoretical synthesis without directly involving respondents from Generation Z or Islamic educational institutions, which may restrict the generalizability of the findings. The intersection of religion and inclusive education has increasingly been examined through theoretical lenses that frame religion not merely as belief, but as a socio-cultural system shaping educational practices and power relations. From a religious literacy perspective, inclusive education requires critical engagement with religious knowledge as historically situated, internally diverse, and socially embedded (Ainscow, 2020). Inclusive education, as promoted by UNESCO, thus extends beyond access to schooling toward the transformation of interpretive frameworks that either legitimise or challenge exclusion. In this sense, religion can function as a productive resource for inclusion when sacred texts are interpreted in ways that foreground human dignity and equality, yet it may also operate as a site of symbolic power that reproduces stigma through uncritical or essentialist readings (Flanagan, 2023).

Within Islamic educational contexts, disability is increasingly re-theorised through interpretive frameworks aligned with maqāṣid al-sharīʿah, which prioritise the protection of dignity (karāmah) and life (ḥifẓ al-nafs). Framed through critical pedagogy, such reinterpretations challenge deficit-based constructions of disability by interrogating the normative assumptions that marginalise embodied difference in educational settings (Ghaly, 2010; Rispler-Chaim, 2007). Empirical studies suggest that embedding Islamic ethical values—such as justice, empathy, and social responsibility—within inclusive curricula enables learners to critically reflect on inherited religious discourses and fosters participatory learning environments for students with disabilities (Novanto et al., 2025; Nuryana et al., 2024). These developments illustrate how Islamic education can move from doctrinal transmission toward emancipatory pedagogies that contest exclusionary norms.

Interfaith educational approaches further extend this critical orientation by cultivating dialogical spaces in which multiple religious and non-religious worldviews are examined relationally rather than hierarchically. Drawing on critical religious literacy, such approaches emphasise reflexivity, power awareness, and the negotiation of difference within plural classrooms (Hsu & Kao, 2024). Nevertheless, the 'paradox of inclusivity' remains salient, as religious education must reconcile commitments to inclusion with the presence of exclusive truth claims (Flanagan, 2023). Research indicates that when educational institutions collaborate with religious actors in ways that foreground pedagogical reflexivity and social justice, interfaith initiatives can function as transformative practices that reduce prejudice and enhance intercultural competence (Rockenbach et al., 2025; Muthoifin et al., 2024). Accordingly, a theory-driven integration of religion, religious literacy, and critical pedagogy offers a robust framework for advancing inclusive education and reimagining the ethical purposes of schooling in plural societies.

The implications of this study encompass several practical and academic aspects. Islamic educational institutions should develop curricula that explicitly incorporate digital ethics competencies grounded in Qur'anic values, technological literacy, and critical thinking. Lecturers and teachers in Islamic education are expected to enhance their pedagogical and digital capacities to serve as role models and effective facilitators of digital ethics. Future research could test the effectiveness of this interdisciplinary model through empirical approaches in madrasahs, pesantrens, and Islamic higher education institutions.

National education policymakers should support the integration of religious education, science, and digital literacy through adequate regulations. At the individual level, Generation Z needs to cultivate personal awareness that technology use constitutes a spiritual and social trust (amānah), where every digital action must reflect faith, responsibility, and public benefit (maṣlaḥah).

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