

Digital Literacy and Character Formation in Indonesian Schools: Rethinking the Pancasila Learner Profile

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Article History Received : 05-09-2026 Revised : 29-09-2026 Published : 05-10-2026 Keywords: <i>character education, critical pedagogy, digital literacy, lateral reading, Pancasila Learner Profile</i>	Indonesian education policy pursues character strengthening and digital literacy as parallel programmes, yet digital environments have become a principal site of moral formation, making their separation a significant source of implementation weakness. This study aims to examine how Indonesian policy instruments construct the relationship between digital environments and moral formation, to identify what research establishes about the mechanisms through which such environments shape belief and disposition, and to formulate an integrated pedagogical design. The research applies qualitative document analysis with a critical policy orientation, examining the National Education System Law, the Child Protection Law, the Personal Data Protection Law, presidential regulation on character education, curriculum regulation, and ministerial regulation on violence in educational units, read against scholarship in media education, information evaluation, adolescent development, and platform political economy. The findings show that the corpus is dominated by protective and operational orientations while the critical orientation, conceptually present in the critical reasoning dimension of the Pancasila Learner Profile, lacks implementing instruments; that operational fluency does not produce evaluative judgement, since students read vertically while expert evaluators read laterally; and that credibility checklists widely used in Indonesian materials train the behaviour that produces error. The article recommends embedding critical evaluation within subject teaching, replacing checklists with

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	taught verification procedures, using media production as analysis, aligning institutional ethos with the explicit programme, and treating school data governance under the Personal Data Protection Law as pedagogical practice.

I. INTRODUCTION

Indonesian education policy has committed itself simultaneously to two agendas that are rarely analysed together. The first is character strengthening, institutionalised through presidential regulation and subsequently reformulated as the Pancasila Learner Profile, which specifies dimensions of faith and devotion, global diversity, mutual cooperation, independence, critical reasoning, and creativity.¹ The second is digital literacy, promoted through national movements, infrastructure investment, and curricular integration, on the assumption that competence in digital environments is a prerequisite for economic participation. Policy treats these as parallel programmes. This article argues that they are inseparable, and that treating them separately explains a substantial part of why neither has achieved what was hoped.

The reason for their inseparability is that the digital environment is now a principal site of moral formation, not merely a set of tools to be used competently. Adolescents acquire beliefs about what is true, what is admirable, how disagreement is conducted, and what their own worth consists in largely through platforms whose architecture is optimised for engagement rather than for understanding.² A character programme that addresses the classroom while ignoring this environment is addressing the smaller of two formative influences. Equally, a digital literacy programme that teaches operational competence how to use applications, how to protect passwords, how to avoid scams without addressing judgement and disposition is teaching the least consequential part of what students need.

The ideal condition is reasonably specified in Indonesian law. The National Education System Law defines educational aims in terms of faith, noble character, and the capacities

¹ Peraturan Presiden Nomor 87 Tahun 2017 tentang Penguatan Pendidikan Karakter, Pasal 2–3; Peraturan Menteri Pendidikan, Kebudayaan, Riset, dan Teknologi Nomor 12 Tahun 2024 tentang Kurikulum pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, dan Jenjang Pendidikan Menengah, Pasal 4.

² Shoshana Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (New York: PublicAffairs, 2019), 63–97.

required for citizenship.³ The Child Protection Law obliges the state, schools, and families to protect children from content and conduct that endanger their development.⁴ Recent ministerial regulation on the prevention and handling of violence in educational units explicitly encompasses conduct occurring through electronic media, establishing institutional obligations of prevention, handling, and reporting.⁵ The Personal Data Protection Law, meanwhile, establishes rights over personal data that bear directly on the conditions under which minors participate in digital environments.⁶

The actual condition diverges in two respects. Substantively, digital literacy as practised in Indonesian schools remains predominantly operational and protective focused on skills and on the avoidance of harm rather than critical, that is, concerned with how information is produced, how attention is monetised, and how platform design shapes belief and self-understanding. Institutionally, character education continues to be delivered through habituation routines, displays, and integration matrices that were designed for a world in which the school was the dominant formative environment.

The scholarly debate on these matters is unusually contested, and the contestation is itself pedagogically significant. One influential body of work argues that the reorganisation of adolescent life around smartphones and social platforms has produced measurable deterioration in wellbeing and attention.⁷ A second body contests this on methodological grounds, showing that association between screen use and adolescent wellbeing in large datasets is small and sensitive to analytic choices.⁸ A third, ethnographic in orientation, argues that adolescent digital practice is more varied and more socially embedded than either position acknowledges, and cautions against policies premised on a deficit view of young people.⁹

The research gap this article addresses lies in the disconnection between these debates and the design of Indonesian policy instruments. Indonesian scholarship has

³ Undang-Undang Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional, Pasal 3.

⁴ Undang-Undang Nomor 35 Tahun 2014 tentang Perubahan atas Undang-Undang Nomor 23 Tahun 2002 tentang Perlindungan Anak, Pasal 9 dan Pasal 54.

⁵ Peraturan Menteri Pendidikan, Kebudayaan, Riset, dan Teknologi Nomor 46 Tahun 2023 tentang Pencegahan dan Penanganan Kekerasan di Lingkungan Satuan Pendidikan, Pasal 6 dan Pasal 9.

⁶ Undang-Undang Nomor 27 Tahun 2022 tentang Pelindungan Data Pribadi, Pasal 4 dan Pasal 25.

⁷ Jonathan Haidt, *The Anxious Generation: How the Great Rewiring of Childhood Is Causing an Epidemic of Mental Illness* (New York: Penguin Press, 2024), 1–30.

⁸ Amy Orben and Andrew K. Przybylski, "The Association between Adolescent Well-Being and Digital Technology Use," *Nature Human Behaviour* 3, no. 2 (2019): 173–182.

⁹ danah boyd, *It's Complicated: The Social Lives of Networked Teens* (New Haven: Yale University Press, 2014), 1–28.

produced extensive work measuring digital literacy levels and character indicator attainment, but comparatively little that examines the conceptual architecture of the programmes themselves or that reads the two programmes against one another. The novelty of the article lies in its argument that the Pancasila Learner Profile already contains, in its critical reasoning and global diversity dimensions, the conceptual resources for a critical digital pedagogy, and that the failure to realise this is a matter of instrument design rather than of policy intent.

Three research questions follow. First, how do Indonesian character and digital literacy policy instruments construct the relationship between digital environments and moral formation? Second, what does the research literature establish about the mechanisms through which digital environments shape belief, attention, and disposition, and what does this imply for pedagogy? Third, what integrated design would enable schools to address digital environments as sites of formation rather than as tools to be used safely?

II. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Media education has a long theoretical tradition that current digital literacy policy largely bypasses. Buckingham's formulation holds that media education concerns the critical understanding of how media texts are produced, how they represent the world, how audiences interpret them, and whose interests they serve a conception that treats students as analysts rather than as potential victims requiring protection.¹⁰ Hobbs's work on digital and media literacy identifies a set of competencies access, analyse, create, reflect, act that integrate critical understanding with productive capability.¹¹ The significance of this tradition for the present argument is that it locates literacy in judgement rather than in operation, and that it treats the creation of media as part of the analysis rather than as a separate vocational skill.

Research on the evaluation of online information supplies a more specific foundation. Wineburg and McGrew's comparison of how historians, fact-checkers, and students evaluate unfamiliar websites found that students read vertically, staying within a site and judging credibility by its internal features, while professional fact-checkers read laterally,

¹⁰ David Buckingham, *Media Education: Literacy, Learning and Contemporary Culture* (Cambridge: Polity Press, 2003), 35–60; David Buckingham, *The Media Education Manifesto* (Cambridge: Polity Press, 2019), 1–20.

¹¹ Renee Hobbs, *Digital and Media Literacy: A Plan of Action* (Washington: Aspen Institute, 2010), 17–31.

leaving the site immediately to find out who stands behind it.¹² This finding is directly actionable: lateral reading is a teachable procedure, and it outperforms the credibility checklists that dominate school practice and that were largely developed for print. Research on the diffusion of false information adds urgency, demonstrating that false claims spread more rapidly and more widely than true ones, and that this differential is driven by human sharing rather than by automation.¹³

The third body of literature concerns character formation. Lickona's tripartite account moral knowing, moral feeling, moral action remains the standard reference, and its central claim is that programmes addressing knowledge alone do not produce conduct.¹⁴ Ryan and Bohlin's work on school-level implementation emphasises that character is formed by the ethos of an institution more than by its explicit programme.¹⁵ Within the Indonesian intellectual tradition, Ki Hadjar Dewantara's formulation of education as the cultivation of character alongside intellect, and his conception of the teacher as one who leads by example, precedes and in some respects anticipates these accounts.¹⁶

The theoretical framework adopted here combines three propositions. First, from the media education tradition, that literacy in digital environments is constituted by critical understanding of production and interest, not by operational skill. Second, from character education research, that dispositions are formed through practice and institutional ethos rather than through instruction about values. Third, from the political economy of platforms, that the environments in which students form their dispositions are designed to optimise objectives that diverge systematically from educational ones, and that this divergence is structural rather than incidental.¹⁷

The theoretical gap addressed is the absence of an account that holds these three together at the level of institutional design. Media education theory has developed largely without reference to character formation; character education has developed largely without reference to the digital environment; and platform critique has rarely been

¹² Sam Wineburg and Sarah McGrew, "Lateral Reading and the Nature of Expertise: Reading Less and Learning More When Evaluating Digital Information," *Teachers College Record* 121, no. 11 (2019): 1–40.

¹³ Soroush Vosoughi, Deb Roy, and Sinan Aral, "The Spread of True and False News Online," *Science* 359, no. 6380 (2018): 1146–1151.

¹⁴ Thomas Lickona, *Educating for Character: How Our Schools Can Teach Respect and Responsibility* (New York: Bantam Books, 1991), 51–62.

¹⁵ Kevin Ryan and Karen E. Bohlin, *Building Character in Schools: Practical Ways to Bring Moral Instruction to Life* (San Francisco: Jossey-Bass, 1999), 3–28.

¹⁶ Ki Hadjar Dewantara, *Pendidikan* (Yogyakarta: Majelis Luhur Persatuan Taman Siswa, 2004), 14–25.

¹⁷ Zuboff, *The Age of Surveillance Capitalism*, 63–97; Ben Williamson, *Big Data in Education: The Digital Future of Learning, Policy and Practice* (London: SAGE, 2017), 4–22.

translated into classroom practice. The integration proposed here treats critical digital pedagogy as a form of character education rather than as an adjacent competence.

III. RESEARCH METHOD

This study employs qualitative research using document analysis with a critical policy orientation. Document analysis systematically reviews and interprets documentary material to elicit meaning and develop understanding, and is appropriate where the object of inquiry is the conceptual architecture of policy instruments rather than the distribution of observable behaviours.¹⁸ The critical orientation directs attention to what policy instruments presuppose, what they leave unproblematised, and what effects follow from their particular framing of the problem.¹⁹

Data sources are organised in three categories. Primary documents comprise Law Number 20 of 2003 on the National Education System; Law Number 35 of 2014 amending the Child Protection Law; Law Number 27 of 2022 on Personal Data Protection; Law Number 19 of 2016 amending the Electronic Information and Transactions Law; Presidential Regulation Number 87 of 2017 on Character Education Strengthening; Regulation of the Minister of Education, Culture, Research and Technology Number 12 of 2024 on the Curriculum; and Regulation Number 46 of 2023 on the Prevention and Handling of Violence in Educational Units. Secondary sources comprise peer-reviewed research in media education, information evaluation, adolescent development, and character formation. Supporting materials comprise international frameworks and comparative assessment reports, including UNESCO's media and information literacy curriculum and OECD analyses of reading in digital environments.²⁰

Analysis proceeded in four stages. The policy corpus was coded for provisions addressing digital environments, distinguishing protective, operational, and critical orientations. The Pancasila Learner Profile dimensions were then analysed for their implicit relationship to digital practice. The research literature was examined for mechanisms linking platform architecture to belief formation and disposition. Finally, design principles were derived from the intersection and tested against the constraints

¹⁸ Glenn A. Bowen, "Document Analysis as a Qualitative Research Method," *Qualitative Research Journal* 9, no. 2 (2009): 27–40.

¹⁹ Carol Bacchi, *Analysing Policy: What's the Problem Represented to Be?* (Frenchs Forest: Pearson Australia, 2009), 1–24.

²⁰ UNESCO, *Media and Information Literate Citizens: Think Critically, Click Wisely!* (Paris: UNESCO, 2021); OECD, *21st-Century Readers: Developing Literacy Skills in a Digital World* (Paris: OECD Publishing, 2021), 23–50.

established by the regulatory framework. The study analyses policy architecture rather than classroom implementation, and its propositions about practice are analytically derived rather than observationally established.

IV. RESULTS AND DISCUSSION

A. Three Orientations in the Policy Corpus

Coding of the policy corpus yields three distinct orientations toward digital environments, present in markedly unequal proportions.

The protective orientation is dominant. Instruments address digital environments primarily as sources of risk from which students must be shielded: exposure to harmful content, online violence, exploitation, and fraud. The regulation on violence in educational units is the clearest instance, extending institutional obligations of prevention and handling to conduct occurring through electronic media.²¹ This orientation is legitimate and necessary. Its limitation is that protection addresses the student as an object of harm rather than as a developing agent, and a programme constructed entirely within this orientation will produce students who are guarded but not discerning.

The operational orientation is secondary but substantial. Digital literacy appears in curricular and programmatic documents as competence in the use of devices, applications, and services, frequently framed in terms of economic readiness. This orientation has clear instrumental value and is, moreover, the easiest to deliver and assess. Its limitation is that operational competence is largely acquired by students outside school and at a level that frequently exceeds their teachers', so that school-based provision risks teaching what students already know while omitting what they do not.

The critical orientation is present but thin. It appears most clearly in the critical reasoning dimension of the Pancasila Learner Profile, which addresses the capacity to obtain and process information, analyse and evaluate reasoning, and reflect on one's own thinking. This is precisely the conceptual resource required, but it is not connected in policy instruments to the digital environment specifically, and it is not operationalised through the pedagogical procedures that research has shown to work. The dimension exists; the instrument that would realise it does not.

The finding is therefore not that Indonesian policy lacks the necessary concepts, but that the concepts are present in the framework and absent in the implementation

²¹ Permendikbudristek Nomor 46 Tahun 2023, Pasal 6, Pasal 9, dan Pasal 24.

instruments. This distinction matters for the reform proposal that follows, which is accordingly a matter of instrument design rather than of policy revision.

B. Why Operational Literacy Does Not Produce Judgement

The evidence on information evaluation supplies the central analytical finding of this section. Students who are highly competent operationally able to navigate platforms fluently, produce content, and manage their online presence are frequently poor evaluators of the information they encounter.²² Fluency and judgement are distinct capacities, and the former can mask the absence of the latter both from teachers and from students themselves.

The mechanism is instructive. Students evaluating an unfamiliar source characteristically remain within it, assessing credibility by its appearance, its apparent professionalism, the presence of references, and the absence of obvious error. These are the criteria that print-era checklists taught, and they are systematically exploitable: a well-designed page with fabricated references satisfies every one. Professional evaluators instead leave the source immediately, establish who is behind it and what interests they hold, and only then return to assess the claim. This procedure lateral reading is simple, teachable in a short sequence of lessons, and transferable across subjects.

Two implications follow for Indonesian practice. First, the credibility checklists that circulate widely in Indonesian digital literacy materials are not merely insufficient but actively counterproductive, since they train the very behaviour that produces error. Their replacement is a low-cost, high-yield reform. Second, evaluation must be taught within subjects rather than as a standalone unit, because judging whether a claim about Indonesian history, or nutrition, or Islamic law is credible requires knowledge of the field alongside the general procedure. A digital literacy programme detached from subject teaching cannot deliver this, which is a structural argument against the standalone module format that most institutions have adopted.

Table 1. Orientations toward Digital Environments in Educational Practice

Orien tation	Student Construed As	Typical School Practice	Principal Limitation
Prote	Object of	Rules, filtering, awareness campaigns,	Produces compliance, not discernment; ends at

²² Wineburg and McGrew, “Lateral Reading,” 12–28.

Orien tation	Student Construed As	Typical School Practice	Principal Limitation
ctive	potential harm	incident handling	the school gate
Opera tional	Future economic participant	Device and application skills; content production	Teaches what students largely possess; omits judgement
Critic al	Analyst and moral agent	Lateral reading; analysis of production and interest; deliberated creation	Demands subject knowledge and teacher capability

Source: Author's analysis of the policy corpus and research literature, 2026.

C. Attention, Character, and the Architecture of Platforms

The deeper connection between digital environments and character lies in attention. Dispositions are formed through what a person repeatedly attends to, and platform architecture is designed to capture attention by optimising for engagement. The optimisation is not malicious in intent, but its effects are systematic: content that provokes strong reaction is distributed more widely than content that rewards sustained consideration, and the differential is substantial.²³

For character education, the consequence is that students are being habituated, many hours daily, into patterns of attention and response that run directly counter to the dispositions schools claim to cultivate. Mutual cooperation is not developed by environments that reward individual visibility; critical reasoning is not developed by feeds that reward rapid affective judgement; independence is not developed by systems designed to make disengagement uncomfortable. The school's explicit character programme is competing with an implicit curriculum of far greater volume and considerably better design.

It is important to state this carefully, because overstatement invites the methodological objections the literature has rightly raised. The evidence does not support strong claims that digital technology use causes large deteriorations in adolescent wellbeing across populations; the measured associations are small and analytically

²³ Vosoughi, Roy, and Aral, "The Spread of True and False News Online," 1148–1150; Zuboff, *The Age of Surveillance Capitalism*, 293–329.

fragile.²⁴ The argument advanced here does not depend on those claims. It rests instead on a structural observation that is not seriously contested: that platform architecture optimises for objectives which do not coincide with educational ones, and that students spend substantial time within that architecture. One may accept this while remaining agnostic about population-level wellbeing effects.

The pedagogical implication is that the architecture itself should become an object of study. Students who understand why a feed shows them what it shows, what is measured, what is sold, and to whom, are in a different relation to the environment than students who have simply been warned about it. This is character education in Lickona's full sense knowledge, feeling, and action and it is considerably more respectful of students as agents than the protective framing that currently dominates.²⁵

D. An Integrated Design

Five design principles follow from the analysis.

First, integration rather than addition. Critical digital pedagogy should be embedded in subject teaching, where evaluation of claims requires and reinforces subject knowledge, rather than delivered as a separate module. This is the transformative rather than additive approach that curricular integration research identifies as more effective.

Second, procedures rather than exhortations. Students should be taught specific, practised procedures lateral reading, source verification, the identification of who funds and who benefits rather than general encouragement to be critical. The distinction between a taught procedure and an exhortation is the difference between a capability and a slogan.

Third, production as analysis. Students should create digital artefacts and analyse their own choices about framing, omission, and audience. Production reveals the constructedness of media from the inside in a way that analysis of others' work does not, and it converts a capability students already possess into an object of reflection.

Fourth, institutional ethos consistent with the programme. A school that teaches critical evaluation while treating its own communications as beyond question, or that teaches respectful disagreement while permitting none, teaches the ethos rather than the programme.²⁶ The point is not novel but it is persistently neglected in Indonesian character

²⁴ Orben and Przybylski, "The Association between Adolescent Well-Being and Digital Technology Use," 178–181.

²⁵ Lickona, *Educating for Character*, 51–62; Buckingham, *The Media Education Manifesto*, 40–58.

²⁶ Ryan and Bohlin, *Building Character in Schools*, 3–28.

programming, which invests heavily in explicit instruction and little in institutional practice.

Fifth, data governance as pedagogy. Schools now process substantial quantities of student data through third-party platforms, and the Personal Data Protection Law imposes obligations of lawful basis, purpose limitation, and transparency that most institutions have not systematically addressed.²⁷ Beyond compliance, an institution that models careful data stewardship, and explains its choices to students, teaches something that no lesson on privacy can.

E. Implications, Constraints, and Equity

Three constraints bear on implementation. Teacher capability is the first and most serious: teaching critical evaluation requires the teacher to be a competent evaluator, and provision of this capability through the prevailing workshop model is unlikely to succeed for the reasons the professional development literature has long established. The second is assessment: critical judgement is difficult to assess at scale, and in an accountability system that privileges what is measurable, the unmeasured component will be squeezed. The third is infrastructural inequality: schools differ widely in connectivity and device availability, and a pedagogy premised on rich digital access will widen rather than narrow existing gaps.

The equity dimension deserves particular emphasis, because it is frequently inverted in policy discussion. The students least served by current provision are not those with limited access but those with abundant access and no critical framework, since they spend the most time in environments they cannot analyse. Conversely, critical pedagogy is among the least infrastructure-dependent of digital literacy approaches: lateral reading requires one connected device and a teacher who understands the procedure, not a laboratory. Prioritising critical over operational provision is therefore an equity strategy as well as a pedagogical one.

F. Comparative Perspectives and Contested Evidence

International practice offers instructive contrasts, though it must be read with care given the substantial differences in resourcing and institutional structure.

One family of approaches has embedded media and information literacy as a cross-curricular requirement, obliging every subject to take responsibility for the evaluation of

²⁷ Undang-Undang Nomor 27 Tahun 2022, Pasal 16 dan Pasal 20.

claims within its own domain. The strength of this approach is that it locates evaluation where the relevant knowledge resides; its characteristic weakness is diffusion of responsibility, since a requirement that belongs to every subject frequently belongs to none in practice. Systems that have made this approach work have generally paired the cross-curricular requirement with a designated coordinating role and with assessment tasks that explicitly demand sourced reasoning.

A second family has relied on standalone curricula delivered by specialists. This produces clearer accountability and easier measurement, but the evidence on transfer is discouraging: students who learn evaluation procedures in a dedicated lesson frequently fail to apply them when reading a history source or a health claim, because the procedure has been stored as classroom content rather than as a habit of inquiry. The Indonesian tendency toward modular delivery aligns with this second family and inherits its transfer problem.

A third family, more recent, has focused on regulating the environment rather than on educating the user: restricting device use during school hours, imposing design obligations on services accessible to minors, and requiring age-appropriate default settings. This approach addresses the structural asymmetry directly, and its early evidence on attention within school hours appears more encouraging than the evidence for awareness campaigns. It is, however, no substitute for the formation of judgement, since the environment outside school remains unregulated by the school. The considered position emerging from comparative practice is that environmental measures and critical pedagogy are complementary: the former buys attention, the latter uses it.

Two contested matters deserve explicit treatment, because policy in Indonesia has tended to adopt a settled position on both where the evidence does not support one.

The first is the question of prohibition. Restricting device use during instructional hours is a defensible and increasingly common measure, and there are reasonable grounds to expect benefits for classroom attention. But prohibition unaccompanied by pedagogy communicates that the environment is dangerous rather than analysable, and it forfeits the opportunity to examine, with students, the very artefacts that shape them. A defensible institutional position combines restriction during instruction with deliberate, structured engagement with digital material as an object of study a combination that is harder to administer than either measure alone and that is accordingly rare.

The second is the question of harm. Public discussion in Indonesia, as elsewhere, has absorbed strong claims about the effects of digital technology on adolescent mental health. Those claims remain contested on methodological grounds, and it is not the role of

educational institutions to resolve a live empirical dispute by administrative fiat.²⁸ There is, moreover, a pedagogical irony in a school that teaches students to evaluate evidence carefully while itself adopting a contested empirical claim as settled fact. Institutions would do better to treat the dispute as teachable material: examining how the competing studies were designed, what each measures, and why reasonable researchers disagree is an exercise in exactly the critical reasoning the Learner Profile specifies.

G. Implementation Sequence and Institutional Capacity

If the design proposed here is to move beyond exhortation, its implementation requires a sequence realistic about capacity.

The first step is the substitution of evaluation procedures for checklists in existing materials. This is the lowest-cost element of the reform, requiring revision of guidance documents and a short professional development sequence rather than curricular restructuring, and it addresses a practice that is currently doing active harm. Its effects are also relatively easy to demonstrate, which matters for sustaining institutional commitment.

The second is the identification, within each subject, of the specific evaluation questions the discipline requires. What makes a historical source credible is not what makes a health claim credible, and generic guidance cannot supply either. This work is properly done by subject teachers collaboratively, which makes it a natural focus for the professional learning communities that Indonesian schools already nominally possess but rarely use for substantive disciplinary work.

The third is assessment reform. So long as assessment rewards the reproduction of content, the time spent on evaluating claims will be experienced by both teachers and students as time taken from preparation. Tasks that require students to locate, verify, and weigh sources, and that award credit for the quality of that reasoning, convert critical work from a competing demand into the assessed work itself.

The fourth is institutional data governance, which belongs in the sequence rather than alongside it because it is the element that makes the programme credible. A school that teaches students to ask who holds their data and for what purpose, while itself

²⁸ Haidt, *The Anxious Generation*, 1–30; Orben and Przybylski, “The Association between Adolescent Well-Being and Digital Technology Use,” 178–181.

transferring student records to third-party services without a documented lawful basis, is teaching the practice rather than the lesson.²⁹

A realistic assessment of capacity suggests that the binding constraint throughout is teacher evaluative competence, which cannot be assumed and cannot be produced by a single workshop. This has an uncomfortable implication that policy documents rarely state: a programme of this kind cannot be implemented uniformly across the system at once, and attempting to do so will produce documentary compliance of the kind already familiar from other reforms. Staged implementation, beginning where capability exists and building transferable models, is slower in appearance and faster in effect.

H. Family, Community, and the Limits of School-Based Provision

Any honest account of digital formation must acknowledge that the school is not the principal environment in which it occurs. Students spend a minority of their waking hours in classrooms and a substantial share of the remainder in digital environments mediated by family practice, peer norms, and community expectation. A programme designed as though the school were the decisive influence will overstate its own reach and misallocate effort.

Three consequences follow. The first concerns family engagement. Indonesian schools communicate with families extensively about conduct and academic progress, and comparatively little about digital practice beyond the transmission of warnings. Yet the evidence on adolescent media use consistently indicates that family rules, conversation, and modelling shape practice more reliably than institutional instruction.³⁰ School provision that equips parents to have substantive conversations about what a recommendation system is, why a platform shows what it shows, how to discuss a disturbing encounter without provoking concealment is likely to yield more than an equivalent investment in student assemblies. It is also more difficult, because it requires the school to address adults with varying levels of digital experience without condescension.

The second concerns peer norms, which are the most powerful regulator of adolescent online conduct and the least susceptible to direct instruction. Interventions that work through peer structures student-led review of school digital norms, older students teaching verification procedures to younger ones, deliberation about what the school

²⁹ Undang-Undang Nomor 27 Tahun 2022, Pasal 16, Pasal 20, dan Pasal 25; Williamson, *Big Data in Education*, 4–22.

³⁰ danah boyd, *It's Complicated*, 54–76; Sonia Livingstone and Julian Sefton-Green, *The Class: Living and Learning in the Digital Age* (New York: New York University Press, 2016), 200–224.

community regards as acceptable conduct online enlist rather than oppose the mechanism that actually governs behaviour. This is a familiar principle in character education and an underused one in digital programming, which tends toward adult-to-student transmission precisely where transmission is weakest.

The third concerns the risk of moral panic. Programmes framed around danger tend to generate concealment: a student who encounters harmful material or online coercion, and who believes that disclosure will result in device confiscation or blame, will not disclose. The regulation on violence in educational units establishes reporting and handling mechanisms, but mechanisms operate only if students use them, and use depends on a climate in which disclosure is expected to produce support rather than restriction.³¹ Building that climate is institutional work rather than curricular work, and it belongs in any serious account of what a digital formation programme involves.

These observations suggest a final reframing of the school's role. The school cannot control the environment in which its students are formed, and programmes premised on control will fail. What the school can do is supply what the environment does not: sustained attention to a difficult text, practice in reconstructing an argument one disagrees with, the experience of revising a judgement in light of evidence, and an adult community that models these publicly. These are not compensations for digital life but capacities that digital environments systematically fail to develop and that are, for that reason, increasingly the school's distinctive contribution.

V. CONCLUSION

This article has argued that Indonesian character education and digital literacy policy address a single problem through separate and mutually uninformed instruments, and that their integration is both conceptually available and practically necessary.

In response to the first research question, the policy corpus constructs digital environments predominantly through protective and operational orientations, while the critical orientation present conceptually in the critical reasoning dimension of the Pancasila Learner Profile lacks the implementation instruments through which it would become operative. In response to the second, the research literature establishes that operational fluency does not produce evaluative judgement, that specific teachable procedures such as lateral reading substantially outperform the credibility checklists dominant in school practice, and that platform architecture habituates patterns of attention

³¹ Permendikbudristek Nomor 46 Tahun 2023, Pasal 24 dan Pasal 30; Undang-Undang Nomor 35 Tahun 2014, Pasal 54.

that run counter to the dispositions character education seeks. In response to the third, an integrated design requires embedding critical evaluation in subject teaching, teaching procedures rather than exhortations, using production as a means of analysis, aligning institutional ethos with the explicit programme, and treating the school's own data governance as pedagogical practice.

The theoretical implication is that character education in digital societies cannot be specified independently of media education: the dispositions at issue are formed largely within environments whose design is itself a moral curriculum. The practical implications are addressed to curriculum authorities, who should replace print-era credibility checklists with evidence-based evaluation procedures; to schools, which should integrate critical work into subjects rather than isolating it in modules; and to teacher educators, who should treat the evaluation of online claims as a core professional competence.

Further research should pursue three directions: experimental evaluation of lateral reading instruction in Indonesian classrooms across subject areas; investigation of the relationship between school data governance practice and students' understanding of privacy; and longitudinal study of whether critical analysis of platform architecture produces durable changes in students' information behaviour outside school.

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