

Demographics and Implications for Christian Religious Education in Indonesia: A Data-Informed Framework Based on Telecommunication Statistics 2024

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ABSTRACT

This study examines how demographic patterns of internet use in Indonesia shape the design and practice of Christian Religious Education (CRE) in an increasingly digital society. Using nationally representative data from Telecommunication Statistics in Indonesia 2024 and related statistical tables, the article describes internet penetration, device ownership, and usage characteristics by area of residence, region, age, gender, and educational attainment. The findings show a mobile-centric ecology in which smartphones are the primary access point, home is the dominant location of connectivity, and online activities are largely oriented toward entertainment and social networking, alongside persistent urban-rural and regional digital divides. The study contributes to ongoing efforts to reconstruct Christian education for a digitally mediated Indonesian context.

INTRODUCTION

Indonesia is undergoing a rapid digital transformation, with internet access becoming a defining feature of everyday life and social interaction. Recent national data indicate that more than 70 percent of the population aged five years and over accessed the internet in the three months prior to the 2024 survey, an increase of several percentage points compared with 2023. At the same time, mobile phones have become the dominant device, while fixed-line telephones and household computers occupy a marginal position in the technology ecosystem. This structural shift has far-reaching implications for Christian religious education (CRE), which must now engage learners whose primary experience of communication, learning, and community is digitally mediated (Statistik-Telekomunikasi-Indonesia-2024, 2025)

This article argues that demographic patterns of internet use by area of residence, age, gender, and educational attainment must inform the design of CRE in Indonesia. Drawing on Telecommunication Statistics in Indonesia 2024 and supporting literature from theology, digital religion, and Christian education, the study develops a conceptual framework for data-informed, context-sensitive CRE in a highly mobile and unevenly connected society. The core claim is that CRE which ignores digital demographics risks reinforcing existing inequalities and failing to address emerging forms of spirituality and discipleship in online environments.

LITERATURE REVIEW

Internet, Digital Religion, and Christian Education

Global and Indonesian literature increasingly emphasizes that the internet does not merely provide a new channel for religious content; it reshapes religious experience and community life. Studies of “digital religion” describe how practices such as online worship, faith-based social media communities, and on-demand devotional resources reconfigure notions of sacred space, authority, and participation. In Christian contexts, digital platforms have been associated with both greater access to spiritual resources and new forms of fragmentation, distraction, and consumerism (Mawikere, 2025).

Christian religious education scholarship highlights that digital technologies can support faith formation when they are integrated into coherent pedagogical designs rather than treated as add-on tools (Maranatha & Tandana, 2025). Research on Indonesian churches shows that social media and digital platforms become effective for ministry only when organizational readiness, leadership vision, and theological reflection develop alongside technological adoption. Consequently, CRE must move beyond instrumental use of technology toward deep engagement with how digital media shape identity, relationships, and theological imagination (Zalukhu, 2025).

Digital Divide, Gender, And Intergenerational Dynamics

The benefits of digitalization are not evenly distributed. Indonesian studies document a persistent digital divide between urban and rural communities, between western and eastern regions, and across socioeconomic

strata. These divides often reflect underlying inequalities in infrastructure, income, and education, which in turn influence who can participate in online learning and religious communities. (Yayasan SMERU, 2023).

Gender disparities also shape digital participation. Feminist analyses of ICT in Indonesia show that women frequently have less control over devices, face greater constraints in access and time, and may experience online harassment or cultural restrictions that limit their digital engagement. At the same time, digital spaces can empower women as content creators, leaders, and educators when intentional strategies address these barriers. (Harefa, 2023).

Furthermore, digital engagement is strongly age-stratified. Younger cohorts tend to be more fluent in mobile technologies and social media, while older adults are more cautious, less confident, or structurally excluded. Intergenerational approaches to Christian formation suggest that digital tools can either widen or bridge gaps between generations, depending on how communities design learning environments. (Statistik-Telekomunikasi-Indonesia-2024, 2025)

METHODOLOGY

Data Sources

This article uses secondary quantitative data from *Statistik Telekomunikasi Indonesia 2024* (Telecommunication Statistics in Indonesia 2024), a national publication by Badan Pusat Statistik (BPS–Statistics Indonesia) based on the 2024 National Socioeconomic Survey (Susenas). The data set provides nationally representative estimates of internet access, ownership of information and communication technology (ICT) devices, and various usage characteristics for individuals aged five years and over, disaggregated by province and area classification. Complementary tables on internet access by location, purpose, and sociodemographic characteristics were drawn from online BPS statistical tables and derived statistical briefs. (Statistik-Telekomunikasi-Indonesia-2024, 2025)

To situate the demographic findings within a theological and educational framework, the analysis is integrated with peer-reviewed articles and reports on digital religion, digital theology, Christian education, and digital literacy in Indonesia and beyond. (Siahaan, 2025).

Analytical Approach

The study adopts a descriptive–interpretive design. First, key indicators are summarized: (a) proportion of population accessing the internet; (b) ownership of mobile phones, computers, and fixed-line telephones; (c) differences between urban and rural areas and among major islands; (d) distribution of internet users by age, gender, and educational status; and (e) main locations and purposes of internet use. Second, these quantitative patterns are interpreted through conceptual lenses from digital religion and CRE to identify implications for pedagogy, curriculum, and ecclesial practice. The objective is not statistical inference but the development of an analytically grounded framework to inform practice. (Latuheru, 2025).

RESEARCH RESULTS

Penetration of internet and ICT devices

Nationally, the proportion of the Indonesian population (aged ≥ 5) who reported accessing the internet in the three months preceding the 2024 survey stood at approximately 72–73 percent, up by around three percentage points from 2023. This growth continues a steady upward trajectory since 2021, indicating that internet use has become a predominant feature of daily life for most Indonesians.

Ownership patterns of ICT devices reveal a strongly mobile-centric ecosystem. In 2024, more than two-thirds of the population owned or had access to a mobile phone, whereas household computer ownership remained below one-fifth, and fixed-line telephones were present in less than one percent of households. The near-disappearance of fixed-line telephony and the modest diffusion of household computers suggest that, for the majority of Indonesians, the smartphone is the primary—and often only—gateway to digital services, including educational and religious content (Statistik-Telekomunikasi-Indonesia-2024, 2025).

Urban–Rural and Regional Disparities

Despite national gains, the digital divide remains pronounced. In urban areas, the share of the population accessing the internet in the last three months approaches four-fifths, whereas in rural areas it remains in the low-to-mid sixties, although rural access has been increasing somewhat faster than urban access. Similar disparities appear in device ownership: urban households show higher rates of mobile phone and computer ownership than rural households, even though the gap in mobile phone ownership is narrower.

Regional breakdowns by island indicate that Java and Sumatra generally record higher levels of internet access and ICT ownership compared to eastern regions such as Maluku and Papua, where a substantial number of villages still report weak signals or lack of mobile coverage. Government initiatives—including 4G/5G expansion and satellite-based connectivity—aim to reduce these gaps, but the 2024 figures illustrate that infrastructure and service quality remain uneven.

Age, Gender, and Education

The age profile of internet users is skewed toward younger and prime-age adults. Youth and young adults together constitute a large majority of users, while older adults represent a smaller and more slowly growing share. This pattern aligns with independent estimates showing that Generation Z accounts for a dominant portion of internet users in Indonesia (GoodStats, 2025).

Gender differences are present but not extreme. Men constitute a slightly higher proportion of internet users than women, reflecting broader gendered patterns of ICT access and control. At the same time, studies suggest that when women gain reliable access to technology, they tend to employ it intensively for education, communication, and economic activities, indicating a strong potential for empowerment through targeted interventions (Manurung, 2019).

From an educational perspective, individuals with upper-secondary schooling form the largest group of internet users, followed by those with lower-secondary and primary education, while tertiary graduates represent a smaller fraction in absolute terms. Among those currently attending school, students at the secondary level exhibit particularly high internet use, often accessing the internet from home and school.

Location and Purpose of Internet Use

The home has become the dominant site of internet access. A very high proportion of users report connecting to the internet primarily from their own residence, while smaller shares use schools, workplaces, or public access points such as cafes and community centers as their main access locations. This pattern is consistent with the widespread availability of mobile data and home-based Wi-Fi, especially in urban settings.

In terms of purpose, entertainment and social networking are the leading motives for going online, followed by information seeking and news consumption. Activities related to digital commerce such as searching for and purchasing goods and services occupy a substantial but secondary position, whereas educational uses, including online learning and accessing formal course materials, remain less prevalent. Religious activities, where present, are generally embedded within broader social media and video consumption rather than accessed through specialized learning platforms(Munir et al., 2023)

DISCUSSION

Theological and Pedagogical Implications of a Mobile-Centric, Entertainment-Driven Ecology

The development of digital technology has transformed the way faith is taught and lived in Christian contexts, including through the use of learning management systems, Bible apps, bold Bible classes, and virtual communities. Recent research confirms that the integration of digital technology can not only increase student engagement and participation, but also carries risks of spiritual shallowness, reduced depth of interpersonal relationships, and exposure to revealing and conveying theological information (Okta et al., 2024)..

The findings demonstrate that CRE in Indonesia operates within a digital ecology characterized by mobile-first access, home-based connectivity, and entertainment-oriented usage patterns. For CRE, this has at least three implications. First, pedagogical design must assume that most learners will engage via smartphones under varying connectivity conditions; therefore, resources should be mobile-friendly, data-efficient, and accessible in short, coherent segments. Second, because learners associate digital environments primarily with leisure and social interaction, CRE must adopt forms that are dialogical, visually rich, and narratively compelling, without sacrificing theological depth. Third, the home as primary access point underscores the importance of involving families in digital faith formation, rather than treating CRE as an exclusively school- or church-based endeavor (Simanjuntak, 2024).

Rather than viewing popular digital culture as a threat to be avoided, CRE can critically appropriate its formats—short videos, podcasts, interactive polls, and social media threads—to invite reflection, storytelling, and communal discernment. Such an approach resonates with digital theology perspectives that argue for a constructive engagement with technology, where faith communities learn to inhabit digital spaces as arenas of discipleship, justice, and witness.

Addressing the Digital Divide as a Matter of Educational Justice

The persistent urban-rural and regional disparities in internet access and signal quality highlight that a purely online model of CRE risks deepening existing inequalities. Congregations and schools in well-connected urban centers can benefit from sophisticated learning management systems, video conferencing, and interactive media, while communities in remote or under-served areas may struggle with intermittent connectivity or lack of devices. From a Christian perspective, this divide is not only technical but also theological, as it touches on issues of justice, inclusion, and the equitable distribution of opportunities for spiritual growth.

Consequently, CRE strategies need to be differentiated. In regions with robust connectivity, churches and educational institutions can prioritize integrated digital platforms and complex multimedia resources. In contrast, in areas with limited infrastructure, emphasis should be placed on hybrid models that combine low-bandwidth digital tools (such as messaging apps and downloadable audio) with offline resources, print materials, and face-to-face small groups. Moreover, Christian organizations can align their educational mission with advocacy for improved digital infrastructure and community-level digital literacy, especially in eastern provinces and rural districts (Tuhumury, 2022).

Intergenerational Faith Formation in a Stratified Digital Landscape

The age profile of internet users suggests that younger generations will be most immediately reachable through digital CRE initiatives, but this should not lead to the neglect of older adults. Young people's fluency with digital media positions them as natural participants and co-creators of content, yet intergenerational research cautions against confining them to peer-only spaces. Intergenerational models of Christian formation emphasize mutual mentoring, where different age groups share gifts, stories, and perspectives in both online and offline settings (Allen, 2024).

In Indonesia, a promising strategy is to cultivate "digital discipleship partnerships" in which younger members support older adults in developing basic digital skills, while older members contribute spiritual wisdom and life experience to online discussions and storytelling projects. Such initiatives can mitigate age-based exclusions and embody a vision of the church as a learning community that crosses generational boundaries. At the curricular level, CRE programs should intentionally design activities that require intergenerational collaboration—such as collaborative podcasts, digital testimonies, or thematic Bible studies conducted via video conferencing or messaging groups.

Gender-Sensitive Approaches in Digital Christian Education

Although national statistics show only a modest gender gap in internet use, broader research indicates that women may face more subtle constraints, including limited control over devices, domestic responsibilities that restrict time online, and cultural norms around visibility in digital public spaces. For CRE, this means that online offerings cannot be assumed to be equally accessible or safe for all genders (Horvát & González-Bailón, 2023).

Gender-sensitive CRE design may include providing flexible, asynchronous learning modules that accommodate unpaid care work, ensuring privacy and security in online groups, and actively encouraging women's leadership as facilitators and content creators. Theological reflection on embodiment, power, and voice can be integrated into digital curricula, helping communities critically examine how gendered assumptions shape both offline and online life. By doing so, digital CRE can contribute to the broader empowerment of women in church and society.

Educational Level, School Status, and Curriculum Integration

The strong participation of individuals with secondary education, particularly those currently in school, points to the strategic role of Christian schools and education ministries in shaping digital CRE. Secondary students are heavily engaged in online environments and often navigate complex intersections of faith, identity, and digital culture. Integrating CRE with school-based digital platforms—such as learning management systems, student portals, and official social media channels—can strengthen coherence between formal education and faith formation. (Rohman, Setiawan, & Nurdin, 2024)

Curricular integration may involve embedding digital citizenship, media literacy, and theological reflection on technology into CRE syllabi, enabling students to critically assess their online practices in light of Christian ethics. At the same time, higher-education institutions and theological seminaries can play a pivotal role in training future CRE practitioners to design and evaluate digital learning environments using empirical data and educational theory. (Cloete, 2015)

Implications and Recommendations

Building on the quantitative and conceptual analysis, at least five strategic directions emerge for CRE in Indonesia:

1. Data-informed design: Churches, schools, and Christian organizations should incorporate national and local ICT statistics into strategic planning for CRE, recognizing variations in access, devices, and usage patterns across regions and demographics (Manik, 2025).
2. Mobile-first infrastructure: Given that smartphones are the primary access device, CRE materials should be designed for small screens, intermittent connections, and micro-learning formats, while maintaining coherent theological and pedagogical progression (Manik, 2025).
3. Hybrid and context-sensitive delivery: In areas with strong connectivity, full online or blended models may be appropriate; in low-connectivity

regions, CRE should emphasize combined offline and low-bandwidth strategies, including downloadable content, local storage, and face-to-face gatherings (Crompton et al, 2021).

4. Intergenerational and gender-aware pedagogy: CRE programs should intentionally promote intergenerational collaboration and address gender-specific barriers and opportunities, ensuring that digital initiatives expand rather than constrain participation (Constantin et al., 2024).
5. Theological integration of digital culture: Beyond using digital tools, CRE must critically engage with the cultural logics of digital media—speed, fragmentation, visibility, and algorithmic curation—through theological reflection and spiritual practices adapted for online life (Phillips, 2023).

The demographic evidence from *Statistik Telekomunikasi Indonesia 2024* confirms that Christian Religious Education in Indonesia now unfolds within a predominantly mobile, home-based, and entertainment-oriented digital ecosystem. Internet access has become widespread but remains uneven across regions, between urban and rural areas, and among different social groups, while age, gender, and educational stratification shape who participates, how, and to what extent in online environments (Wen & Tian, 2024).

In this context, CRE that merely “adds” digital tools to existing practices is insufficient. Instead, churches, schools, and Christian organizations are called to design mobile-first and hybrid learning architectures that explicitly account for infrastructural disparities, device constraints, and varied digital literacies. Such designs must be coupled with intentional strategies to bridge the digital divide as a matter of educational justice, ensuring that remote, low-income, and under-connected communities are not progressively excluded from opportunities for faith formation.

Theologically, the findings invite a reconceptualization of CRE as a process of forming disciples who inhabit digital spaces wisely and critically rather than merely consuming religious content online. Intergenerational and gender-sensitive approaches—where younger generations mentor older adults in digital skills, women are empowered as producers and facilitators of content, and all participants reflect critically on their online practices—can help churches embody a more inclusive and just digital community (Siahaan, 2025).

Ultimately, grounding CRE strategies in robust ICT statistics and current scholarship on digital religion enables educators and church leaders to move from reactive adaptation to proactive, contextually rooted innovation. By doing so, Christian education in Indonesia can contribute constructively to shaping a digital culture that is more humane, relational, and oriented toward the holistic flourishing of individuals and communities in Christ (Tupamahu & Hutahaeon, 2025).

CONCLUSIONS AND RECOMMENDATIONS

Telecommunication Statistics in Indonesia 2024 portray a society in which internet access is widespread but uneven, mobile phones dominate digital engagement, and online activities are largely oriented toward entertainment and social networking. These demographic realities significantly shape the

opportunities and constraints for Christian religious education. To remain faithful to its mission in this context, CRE in Indonesia must be empirically informed, theologically reflective, pedagogically innovative, and justice-oriented – seeking to form disciples who live wisely and faithfully within, and not merely adjacent to, the digital world.

This article proposes that CRE in Indonesia should prioritize religious digital literacy and digital inclusion, both at the curriculum, pedagogical, and institutional policy levels. This way, digital transformation can be directed toward strengthening discipleship, enhancing faith formation, and advancing social justice in an increasingly digitalized society.

ADVANCED RESEARCH

This advanced research highlights the need for a data-informed and mobile-first model of Christian Religious Education (CRE) in Indonesia's digital context. Drawing on national telecommunication statistics, it examines how smartphone dominance and digital inequality influence pedagogy and faith formation, and proposes a context-sensitive CRE framework that supports inclusive, reflective, and meaningful Christian learning in the digital age.

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