

Research Article

Challenges of Community Radio in The Digital Era

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ABSTRACT

This study explores the multifaceted challenges faced by community radio stations in Indonesia as they navigate the digital era. Employing a qualitative-descriptive methodology, the research combines literature review, field observations, informal interviews, and online content analysis to provide a comprehensive understanding of the socio-technical and institutional dynamics affecting community radios. Findings reveal persistent inequalities in digital infrastructure and access, particularly between urban and rural areas, which hinder digital adoption and audience expansion. Institutional fragility, ambiguous regulatory frameworks, and governance constraints further limit sustainability and adaptability. Moreover, community radios confront tensions between their participatory communication ideals and the pressures imposed by digital platforms driven by algorithms and commercial metrics. Despite these obstacles, innovative hybrid broadcasting models integrating analog and digital technologies emerge as promising pathways for survival and relevance. However, the success of such models depends on capacity building, supportive policies, and collaborative networks. The study concludes that sustaining community radio's democratic and cultural mission in the digital age requires harmonizing technological adaptation with reaffirmed participatory values and inclusive policy frameworks. Recommendations highlight the need for equitable infrastructure development, targeted digital literacy training, policy reform, and fostering innovation through multi-stakeholder partnerships.

Keywords: Community Radio; Digital Transformation; Local Media; Media Policy; Participation

1. INTRODUCTION

Community radio represents one of the most vital forms of alternative media, particularly in its role as a platform for grassroots communication. It is defined by its independence, non-commercial orientation, and participatory structure, which distinguishes it from state-owned and commercial broadcasting systems (Fraser & Estrada, 2001). Community radio is typically operated by and for the local community it serves, providing space for marginalized voices and promoting media pluralism. As a medium rooted in local culture and social realities, community radio plays a crucial role in democratizing communication and fostering civic engagement (Jallov, 2012).

In Indonesia, the development of community radio is closely tied to the post-reformasi democratization process. The political liberalization following the fall of Suharto in 1998 opened space for alternative and independent media initiatives, including the establishment of community radio stations across the archipelago (Kurnia, 2018). These stations emerged as part of a larger movement to decentralize information and empower communities to articulate their own narratives, away from the dominance of Jakarta-based media conglomerates. As such, community radio has become an important tool for education, local culture preservation, and community development, particularly in rural and underserved regions (Yuliarti, 2020). However, in the context of rapid technological change, community radio faces significant challenges to maintain its relevance. The global proliferation of digital media has reshaped the media landscape, altering how audiences access, produce, and share information. Internet-based platforms such as YouTube, Spotify, and podcasting offer on-demand, personalized content, creating stiff competition for traditional radio formats (Jenkins, 2006). This shift in audience behavior has disproportionately affected analog-based media, especially those with limited infrastructure and coverage areas, such as community radio.

Digital disruption not only affects content delivery but also transforms audience expectations and media habits. Today's listeners, especially younger generations, prefer interactive, mobile-accessible content and often participate in content production themselves via social media (Couldry, 2012). Community radio, with its traditional one-way broadcast model,

struggles to compete with these interactive and algorithmically driven digital platforms. This transformation compels community radio to rethink its strategies for audience engagement, technological adaptation, and content innovation (Milan, 2009). Furthermore, the issue of digital inequality exacerbates the precarious position of community radio. In Indonesia, disparities in internet access between urban and rural areas remain stark. Many rural communities—where community radio is often most needed—continue to experience inadequate digital infrastructure, including poor connectivity, low bandwidth, and limited access to digital devices (ADB, 2021). This digital divide not only hinders listeners from accessing online community radio content but also limits the stations' ability to migrate to digital platforms.

Another critical barrier lies in the capacity of community radio operators to adopt digital technologies. Most stations rely on volunteers with limited technical training, and they operate on minimal budgets that constrain investments in equipment, training, and digital platforms (Rahayu & Fitriyanti, 2021). The lack of sustainable funding models makes it difficult for stations to innovate, integrate with streaming services, or produce multimedia content that meets the demands of the digital era. Additionally, community radio is often overlooked in national media and communication policy frameworks, which tend to prioritize commercial and public broadcasters. Despite these challenges, some community radio stations in Indonesia and other parts of the world have shown remarkable resilience and innovation. By experimenting with hybrid models—such as combining FM broadcasting with Facebook Live, podcasts, or WhatsApp groups—stations can maintain local relevance while extending their reach (Girard, 2007; Garman, 2015). These adaptations underscore the potential of community radio to bridge traditional and digital paradigms, provided adequate support and contextualized strategies are in place.

This article aims to critically examine the multi-dimensional challenges faced by community radio in the digital era. By synthesizing academic literature, policy analysis, and empirical insights from recent field studies, the discussion will explore the structural, technological, and participatory constraints that hinder digital adaptation. In doing so, the article seeks to identify practical strategies that can empower community radio to thrive amid digital transformation—while remaining true to its foundational values of inclusivity, cultural diversity, and local ownership.

2. RESEARCH METHOD

This study adopts a qualitative-descriptive methodology employing a descriptive-exploratory design aimed at understanding the complex and context-bound challenges that community radio faces in the digital era. Qualitative research is deemed appropriate for this study because it emphasizes depth over breadth, allowing for nuanced insights into the social, cultural, and institutional dynamics of community radio operations (Creswell, 2013). This method facilitates the exploration of meanings, experiences, and practices within community radio stations, particularly as they navigate technological shifts, shifting audience preferences, and limited institutional support. The research was conducted through a triangulated data collection process that includes a systematic literature review, field observations, in-depth informal interviews, and content analysis of digital platforms. This triangulation strategy enhances the validity of the findings by allowing for cross-verification among different data sources and research instruments (Denzin, 1978).

1. Literature and Document Analysis

The first component of the research consisted of a literature review and document analysis. Relevant academic publications, media policy documents, and government regulations—including Indonesia's Broadcasting Law No. 32/2002 and the Indonesian Press Law No. 40/1999—were analyzed to contextualize the institutional and legal framework under which community radio operates. Key sources were drawn from peer-reviewed journals, books, and international media development reports, such as those by UNESCO, AMARC (World Association of Community Radio Broadcasters), and the Asia-Pacific Institute for Broadcasting Development (AIBD). This literature provided the theoretical grounding on media convergence (Jenkins, 2006), participatory communication (Servaes, 2008), and digital inequality (van Dijk, 2020).

2. Field Observations and Informal Interviews

Field research was conducted in 2023 through site visits to selected community radio stations in Aceh and Central Java—two provinces that offer diverse geographical, technological, and cultural contexts. The stations observed include urban-based and rural-based community radios, both licensed and unlicensed, in order to capture a spectrum of operational realities. During these visits, informal interviews were conducted with station managers, volunteer broadcasters, and community stakeholders. The interviews, though unstructured, followed thematic guidelines related to technological adaptation, digital literacy, audience engagement, and institutional sustainability. Informal interviews were selected to foster a more open, conversational dynamic that is often more effective in exploratory research settings (Rubin & Rubin,

2012). Field notes from direct observation documented the physical conditions of the stations, the equipment used, the day-to-day operations, and patterns of content production. These observations were essential in revealing infrastructural limitations and socio-cultural dynamics that are not always visible through documentary analysis alone (Emerson, Fretz & Shaw, 2011).

3. Online Content Analysis

The third data source involved online content analysis of selected community radio websites, streaming platforms, and social media accounts (primarily Facebook, Instagram, and YouTube). This component aimed to assess the degree of digital integration and interaction between radio stations and their audiences in the online space. Indicators included the frequency of content updates, audience engagement metrics (likes, shares, comments), and the diversity of digital content formats (e.g., podcasts, livestreams, short videos). The data were collected over a three-month period between July and September 2023, focusing on both qualitative aspects (content themes, tone, language use) and basic quantitative indicators (post frequency, subscriber count).

4. Data Analysis Techniques

Data analysis was carried out using thematic analysis, with an inductive approach that allowed patterns and categories to emerge from the data (Braun & Clarke, 2006). Thematic coding was applied to all data sources, and codes were grouped into four main thematic clusters: (1) technological infrastructure and digital adaptation, (2) content production and platform convergence, (3) audience interaction and media behavior, and (4) organizational and regulatory challenges. The thematic findings were then interpreted through theoretical lenses including media convergence theory (Jenkins, 2006), participatory communication theory (Freire, 1970; Servaes, 2008), and the digital divide framework (van Dijk, 2020). Throughout the analysis, reflexivity was maintained to account for the researcher's positionality and its potential influence on data interpretation (Berger, 2015). The integration of empirical data and conceptual reflection aimed to construct a holistic understanding of the socio-technical challenges community radio stations face today.

3. RESULTS AND DISCUSSION

3.1. Limited Digital Infrastructure and Unequal Access

Community radio stations in Indonesia face major constraints in adopting digital technologies due to outdated infrastructure. Many operate with analog transmitters, old mixing boards, and non-digital editing equipment, making it difficult to produce or distribute content through digital platforms. These technical limitations significantly affect their ability to keep pace with digital-native competitors such as YouTube or Spotify (Kurnia, 2018). Geographical disparities worsen the problem. Stations located in remote or rural areas often lack access to stable internet connections or even consistent electricity. According to Kominfo (2022), only 42% of rural community radios had sufficient connectivity for streaming, and many lacked the IT literacy necessary to manage even basic web content. As a result, their audience reach remains restricted to narrow FM bands, while digital platforms expand rapidly across user segments. This technological lag undermines the core mission of community radio: to serve as an accessible, participatory medium for marginalized communities. Without adequate infrastructure, these stations struggle to create digital archives, produce podcasts, or interact with audiences on social media—activities that are increasingly vital to relevance in the digital ecosystem (van Dijk, 2020). Their exclusion from this space reflects broader patterns of digital inequality. Despite these challenges, some stations attempt to innovate using limited resources. The case of Suara Edukasi Kulon Progo exemplifies how analog and digital tools can be integrated creatively through smartphones and community-based applications (Arifianto & Utami, 2021). However, such efforts are isolated, often reliant on external funding, and difficult to replicate without systemic infrastructure investment. Addressing infrastructure inequality demands more than technological upgrades. It requires holistic interventions involving public-private partnerships, digital capacity building, and affordable internet policies tailored to non-commercial media. Without these structural changes, community radio risks obsolescence in a media environment where access to digital tools increasingly determines visibility, sustainability, and civic impact.

3.2. Institutional Fragility and Governance Constraints

Beyond technology, institutional fragility continues to hamper the effectiveness of community radio. Most stations operate under informal organizational structures, with volunteers managing production, finance, and outreach simultaneously. This multitasking often leads to burnout, inconsistency, and limited institutional memory, which in turn affects long-term

planning and adaptability (Coyer et al., 2007). Moreover, legal and regulatory frameworks in Indonesia are ambiguous regarding community broadcasting. Although community radio is recognized under the Broadcasting Law No. 32/2002, the licensing process remains complex, expensive, and often inaccessible to grassroots actors (Yulianti, 2017). Many stations choose to operate semi-legally, which exposes them to regulatory risks and limits their ability to seek institutional funding or formal partnerships. Governance challenges are also tied to a lack of strategic planning. Most community radios do not have a clear digital roadmap or organizational policies for adapting to digital convergence. This makes it difficult to implement consistent content strategies, allocate budgets for digital upgrades, or train staff in new media tools. Leadership turnover and internal conflicts further weaken their governance capacity (Rahayu & Fitriyanti, 2021). External support is often project-based and short-term, resulting in fragmented development. NGOs or donors may fund a podcast training workshop or donate a laptop, but without follow-up or integration into broader institutional frameworks, these efforts have limited sustainability. Furthermore, community ownership, while a strength in participatory media, can sometimes lead to a diffusion of responsibility and lack of decision-making clarity. To address these issues, it is vital to strengthen the institutional backbone of community radio through capacity building in leadership, financial management, and governance systems. Support from university-based media clinics, national broadcasting associations, or cooperative models could provide technical and legal assistance. This will help community radio not only survive but also evolve into stable and resilient institutions within the digital media ecosystem.

3.3. Participatory Ideals vs Platform Pressures

At the heart of community radio is the ideal of participatory communication: providing a voice to marginalized communities through locally relevant, inclusive, and dialogic content (Fraser & Estrada, 2001). However, this participatory mission faces tension in the digital environment, where algorithmic visibility, user engagement metrics, and content monetization often define success. Digital platforms like Facebook, YouTube, and TikTok are optimized for virality and advertiser appeal, which can pressure community radios to produce entertainment-focused or trendy content. This shift risks sidelining slower-paced, culturally rooted, or politically sensitive content that does not perform well in digital metrics. As a result, community radio may dilute its mission to align with platform logics (Girard, 2007). Additionally, the push for online presence can create exclusivity. Interactive participation via Zoom, Instagram Live, or YouTube comments presumes digital access and literacy, excluding members of the community who are less tech-savvy or lack stable internet. Thus, rather than democratizing media, platform dependency may reproduce digital hierarchies (Couldry & Mejias, 2019). Moreover, adapting to digital platforms requires not only technical skills but also a shift in content production culture. Volunteers trained in linear radio scripting may find it challenging to create short-form video or manage social media analytics. This cognitive and cultural transition is often overlooked in discussions on digital transformation, yet it is crucial for preserving participatory ethos. To maintain their core identity, community radios must develop digital strategies that balance algorithmic demands with community relevance. This includes adopting open-source platforms, co-creating content with listeners, and building local digital literacy. Only through intentional and critical engagement can community radios resist platform pressures while staying true to their participatory roots.

3.4. Innovative Hybridization: Emerging Models of Adaptation

Despite structural and institutional challenges, various community radio stations have begun experimenting with hybrid models that combine traditional broadcasting with digital technologies. This includes streaming FM content through mobile apps, archiving broadcasts as podcasts, or interacting with listeners via WhatsApp groups and Facebook Live sessions (AMARC, 2019). Such hybridization allows stations to expand their reach without abandoning analog formats, which remain vital for audiences in areas with limited internet. For example, Radio Komunitas Citra in Yogyakarta uses FM frequencies to reach older villagers while simultaneously uploading talk shows to YouTube for younger listeners. This approach respects generational and infrastructural diversity while leveraging digital tools for broader engagement. Hybrid models also encourage content co-creation. Stations can invite community members to submit audio via mobile phones or to participate in live comment sessions through social media. This revitalizes participatory practices in a digital environment, allowing for new forms of civic dialogue and cultural expression that transcend traditional broadcasting boundaries (Rennie, 2006). However, sustaining these models requires careful planning and continuous learning. Digital tools are constantly evolving, and staying current demands not only technical capacity but also institutional support and policy flexibility. Community radios must experiment iteratively and evaluate what formats work best for their specific audiences and local contexts. The success of hybrid models depends on building local ecosystems of innovation, including

collaborations with universities, tech volunteers, and civil society groups. These partnerships can provide training, technical assistance, and infrastructural resources. More importantly, they foster a culture of adaptability and experimentation, which is essential for survival in a rapidly changing media environment.

3.5. The Role of Policy and Media Development Agencies

Public policy and institutional support are critical in enabling community radios to survive and thrive in the digital age. Yet, in Indonesia, media policy often prioritizes commercial and state broadcasters, offering limited recognition or funding for community-based initiatives (Yuliarti, 2017). This lack of prioritization stifles innovation and sustainability among grassroots media organizations. Governmental programs aimed at digital inclusion rarely account for the unique needs of community radio. Digital infrastructure support often comes with bureaucratic hurdles, while training initiatives are generic and not tailored to participatory or non-profit media. As a result, community radios must navigate a regulatory landscape that is both exclusionary and insufficiently responsive (AMARC, 2019). Development agencies and donor organizations have historically played an important role in nurturing community media, but their involvement has often been episodic. Project-based funding cycles can create dependency and undermine long-term planning. Furthermore, these projects frequently prioritize deliverables over impact, leading to a mismatch between community needs and intervention design (Coyer et al., 2007). There is a growing need for inclusive media policies that formally recognize community radio as essential democratic infrastructure. This includes simplifying licensing procedures, allocating funding for digital transformation, and integrating community media into national strategies for digital literacy and civic engagement. Media development agencies must also adopt a more participatory approach in designing support programs, engaging station members as co-creators rather than passive recipients. Ultimately, community radio's resilience in the digital era will depend on the convergence of grassroots innovation and top-down support. A synergistic model, wherein policy frameworks enable and protect while communities innovate and adapt, is essential for ensuring that community radio remains a vital, democratic, and inclusive force in the evolving media landscape.

4. CONCLUSION

Community radio in Indonesia, and globally, continues to play a crucial role in democratizing communication, preserving local culture, and enabling participatory discourse, especially in marginalized and rural areas. However, as demonstrated in this study, the digital era presents a complex landscape of challenges that threaten the relevance and sustainability of community-based broadcasting. These challenges are deeply rooted in unequal access to digital infrastructure, fragile institutional governance, limited technical capabilities, and shifting audience behaviors toward on-demand and multimedia content. The digital divide remains one of the most formidable barriers to transformation. While some urban-based stations are beginning to integrate online platforms and social media tools, many rural community radios lack access to stable internet connections, digital production tools, or the technical know-how needed to migrate to hybrid broadcasting models. These disparities further marginalize already underserved communities, contradicting the very ethos of community radio. Moreover, the tension between community radios' participatory values and the demands of digital platforms presents a philosophical dilemma. The platformization of communication, driven by algorithms, monetization metrics, and content virality, challenges the slow, dialogic, and locally rooted practices of community broadcasting. Without careful adaptation, community radio risks losing its identity while chasing digital relevance. Despite these constraints, innovation is emerging. Hybridization—where FM broadcasting is complemented by social media streams, WhatsApp listener feedback, and podcasting—offers promising avenues. However, such transformations require sustained institutional capacity-building, digital literacy training, and supportive media policy frameworks that are sensitive to grassroots realities. In essence, the survival and evolution of community radio in the digital age depend not only on technological adaptation but also on reaffirming its core mission of participatory communication. A future-proof community radio model must harmonize digital integration with community ownership, cultural specificity, and democratic values.

RECOMMENDATIONS

1. Strengthening Infrastructure and Access

National and local governments, in collaboration with telecommunication providers and civil society organizations, must prioritize equitable digital infrastructure, particularly in rural areas where community radios are most vital. Subsidized internet, affordable hardware, and community-based ICT hubs can help reduce the digital divide that hampers transformation efforts.

2. Capacity Building and Digital Literacy Training

Targeted training programs are essential for community radio practitioners to gain skills in digital content production, social media management, and hybrid broadcasting. These should be participatory, context-sensitive, and inclusive of volunteers, especially youth and women, who are often underrepresented in media production roles.

3. Policy Reform and Institutional Support

Regulatory bodies such as Indonesia's Ministry of Communication and Information (Kominfo) and the Broadcasting Commission (KPI) must streamline licensing procedures, reduce bureaucratic burdens, and allocate funding mechanisms that recognize the public service role of community radios. Policies should also promote the sustainability of community media in the digital era, not just their compliance.

4. Fostering Innovation and Collaboration

Community radios should be encouraged to experiment with multi-platform strategies, such as podcasting, live streaming, or community-driven mobile applications. Partnerships with universities, NGOs, and local tech communities can facilitate knowledge transfer and co-create tools that are both technically viable and socially grounded.

5. Reaffirming Participatory Values

Amid the digital shift, community radio must remain anchored in its mission of giving voice to the voiceless. Even as stations adopt new platforms, they should ensure that content remains locally relevant, culturally appropriate, and inclusive of diverse community members. Audience participation must not be sacrificed for platform metrics.

REFERENCES

- AMARC. (2019). *Digitalization and community media: Opportunities and challenges*. World Association of Community Radio Broadcasters.
- Arifianto, A., & Utami, A. D. (2021). Community radio and digital participation: A study of Suara Edukasi Kulon Progo. *Jurnal Ilmu Komunikasi*, 19(1), 22–34.
- Asian Development Bank (ADB). (2021). *Accelerating digital transformation in Indonesia: Challenges and policy recommendations*. ADB.
- Berger, R. (2015). Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative Research*, 15(2), 219–234. <https://doi.org/10.1177/14687941152468475>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Couldry, N. (2012). *Media, society, world: Social theory and digital media practice*. Polity.
- Couldry, N., & Mejias, U. A. (2019). *The costs of connection: How data is colonizing human life and appropriating it for capitalism*. Stanford University Press.
- Coyer, K., Downmunt, T., & Fountain, A. (Eds.). (2007). *The alternative media handbook*. Routledge.
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Sage Publications.
- Denzin, N. K. (1978). *The research act: A theoretical introduction to sociological methods* (2nd ed.). McGraw-Hill.
- Emerson, R. M., Fretz, R. I., & Shaw, L. L. (2011). *Writing ethnographic fieldnotes* (2nd ed.). University of Chicago Press.
- Freire, P. (1970). *Pedagogy of the oppressed*. Continuum.
- Fraser, C., & Estrada, S. R. (2001). *Community radio handbook*. UNESCO.
- Garman, A. (2015). Community radio, public journalism and democratic dialogical space. *Communication*, 41(2), 168–181. <https://doi.org/10.1080/02500167.2015.1033853>
- Girard, B. (2007). *Empowering radio: Good practices in development and operation of community radio* (B. Girard, Ed.). AMARC.
- Jallov, B. (2012). *Empowering radio: Community radio and development in the 21st century*. Empowerhouse.
- Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. NYU Press.
- Kominfo. (2022). *Laporan survei teknologi informasi dan komunikasi pada radio komunitas di Indonesia*. Kementerian

Komunikasi dan Informatika Republik Indonesia.

- Kurnia, N. (2018). Community radio in Indonesia: A tool for democracy and social change. *Jurnal Komunikasi Indonesia*, 7(2), 83–95.
- Kurnia, N. (2018). Community radio in Indonesia: Democratizing communication, sustaining local culture. *Media and Communication*, 6(1), 125–132. <https://doi.org/10.17645/mac.v6i1.1200>
- Milan, S. (2009). Four steps to community media as a development tool. *Development in Practice*, 19(4–5), 598–609. <https://doi.org/10.1080/09614520902866462>
- Rahayu, D. R., & Fitriyanti, A. (2021). Adaptasi radio komunitas terhadap disrupsi digital: Studi pada radio komunitas di Jawa Barat. *Jurnal Komunikasi*, 13(2), 137–152.
- Rahayu, Y., & Fitriyanti, R. (2021). Tantangan dan adaptasi radio komunitas di era digital. *Jurnal Komunikasi Global*, 10(1), 34–46.
- Rennie, E. (2006). *Community media: A global introduction*. Rowman & Littlefield.
- Rubin, H. J., & Rubin, I. S. (2012). *Qualitative interviewing: The art of hearing data* (3rd ed.). Sage Publications.
- Servaes, J. (2008). *Communication for development and social change*. Sage Publications.
- van Dijk, J. A. G. M. (2020). *The digital divide*. Polity Press.
- Yuliarti, D. (2020). Radio komunitas sebagai media komunikasi masyarakat lokal. *Jurnal Ilmu Komunikasi*, 17(2), 123–135.
- Yuliarti, M. (2017). Legal and political challenges in the sustainability of community radio in Indonesia. *Jurnal Komunikasi Indonesia*, 6(2), 89–98.