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Media Convergence in Indonesian Radio: Integrating Terrestrial and Multiplatform Broadcasting

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ABSTRACT

Background: Digital disruption has changed the global broadcasting landscape, shifting radio from a rigid terrestrial medium to a more fluid multiplatform ecosystem. Although digital platforms dominate the attention economy, radio in Indonesia has shown unique resilience by combining legacy trust with digital network-based interaction. **Purpose:** This study aims to reformulate radio content distribution strategies and explain how radio management adapts to the logic of platformisation in the digital age. **Methods:** This research used a multi-site qualitative approach with case studies on three types of radio stations in Indonesia. Data was collected through in-depth interviews and reinforced with digital ethnography. **Results:** The results show that radio's sustainability is supported by three main pillars. First, algorithmic grooming, which is a radio strategy to tailor content to the logic of visual platform algorithms. Second, distributional decoupling, where radio identity no longer depends entirely on physical frequencies. Third, the utilization of radio as a 'human infrastructure' that builds emotional closeness and parasocial interaction with the audience. This study also found the important role of radio in regional areas as a backup information medium when digital networks are disrupted. **Conclusion:** This study concludes that the revival of radio has occurred through its transformation from a frequency provider to a flexible and adaptive 'everywhere media' entity. **Implications:** Theoretically, this study contributes to the development of media convergence theory by emphasizing that strategic fluidity, the ability to operate across digital and terrestrial boundaries, is key to radio's resilience in the digital age.

Keywords: media convergence; radio broadcasting; digital transformation; professional convergence; media redundancy

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INTRODUCTION

Within the present digital media environment, radio is no longer seen as a stationary or rigid medium. The rise of on-demand audio services has radically reorganized the industry, requiring traditional broadcasters to adapt to the existing trends of music streaming and podcasting. However, the primary problem resides not only in technology acceptance but also in the complicated integration of one-way terrestrial broadcast logic with interactive, multi-platform dynamics (Geraci et al., 2023, p. 45). This phenomenon occurs in several places in Indonesia where internet networks remain limited, and the community relies on FM and AM radio. Most of the local community considers terrestrial broadcasting to be more stable and consistent than digital broadcasting, whose infrastructure has not yet been developed in most areas. Thus, radio remains relevant for use in everyday life in these areas.

Speaking of Indonesia, the history of radio began with the first local broadcast by Bataasche Radio Vereniging (BRV) in 1925 (Gunawan, 2025). The emergence of BRV became a stepping stone in the long journey of radio from the pre-digital to the digital era, from its initial use as a tool for colonial propaganda to a medium for the struggle for independence, and finally to its use as a commercial entertainment industry in the New Order era. Meanwhile, the decline in its existence began with the advent of the internet in the early 2000s. This moment was significant because the shift in media consumption among the public occurred very significantly.

The transition process from analogue to digital required radio stations at that time to adapt to the digital world to maintain their existence. RRI, for example, adopted DAB+ technology in the early 2000s, which produced clearer sound with a wide spectrum and was free from interference. However, this only happened to radio stations with adequate capital. Private radio stations that relied merely on capital from small investors were stuck at a mediocre level of convergence, such as creating websites whose content was more similar to conventional advertising web content at the time (Lukman & Hakim, 2024, p. 12).

In the last decade, the pressure faced by radio media has become increasingly fierce, especially with the emergence of digital streaming platforms (Fiorentino & Vandini, 2024), such as Spotify, YouTube, Deezer, Joox, and similar streaming platforms. These platforms have begun to aggressively erode the audio distribution by radio in the previous era. From a historical perspective, the transition to these platforms did not happen overnight, but the integration phase became a matter of life and death for radio.

Radio is currently facing a life-and-death phase, often referred to as a ‘triple crisis’. The first is a crisis of relevance. The increasingly massive digital penetration has made listeners less excited about radio broadcasts, with most of them directly searching for what they want to listen to through existing streaming platforms (Damanik et al., 2023, p. 89). For the younger generation, Generation Z in particular, radio is often considered a relic, lacking interactivity and engaging content compared to social media. This raises the question: can radio survive when streaming platform algorithms are better able to curate content needed by listeners, coupled with internet penetration in Indonesia reaching 77%? (Sudoyo, 2024).

The second crisis concerns identity. The convergence that has occurred in radio has caused radio to seemingly lose its professional identity. It is obvious when radio stations are required to make videos on YouTube, write articles on their own websites, and manage Instagram content (Garganas, 2024, p. 112). This certainly blurs the existence of radio as an audio-based medium. The impact, apart from the unclear position of radio as a medium, is that radio journalists are required to understand everything beyond their skills, which are usually limited to audio-related skills. In such conditions, the risk of journalistic shallowness becomes even greater, mainly because of the demands of digital existence, which are often prioritized

over the accuracy and depth of content (Balčytienė, 2025).

The third crisis is economic. The conventional business model, reliant on sixty-second advertising slots, is faltering versus cheaper, data-driven programmatic ads on social platforms (Ciuchita et al., 2023). In Indonesia, dwindling ad revenues have accidentally inhibited the very digital innovation required for survival. Understanding these crises is crucial to realizing that multi-platform integration is a strategic imperative rather than only a technology choice.

We apply Jenkins (2004), Media Convergence Theory as the analytical framework for this investigation. Jenkins thinks that convergence is a cultural movement when the borders between old and new media clash. We explore this through three dimensions: technological (IP vs. Terrestrial), economic (new monetization), and professional (changing responsibilities of broadcasters and technicians). We detect a large gap in existing work addressing how the "oldest" medium survives via the views of technical personnel, who are generally disregarded in journalism studies (Schaupp, 2023, p. 56).

This study gives unique insights into community radio resilience in rural Indonesia, specifically in Cisewu, Garut. In this place, radio operates as a key media redundancy infrastructure when digital networks fail (Sjuchro et al., 2018). While worldwide platforms offer great production quality, they lack the geographical contextualization that local radio delivers (Evens et al., 2024). Furthermore, whereas centralization harms locality (Sulistyaningsih et al., 2021), we propose that multi-platform technologies should be leveraged to promote local identity through a "Glocal" (possessing trust from the community while implementing standards digitally and globally) strategy combining global distribution standards with intensely localized content.

Our approach is further backed by Fidler's (1997) mediamorphosis concept, which proposes that new media originate from the metamorphosis of previous kinds. In radio, this is reflected in the move from the "theatre of the mind" to integrated multimedia (Covaci et al., 2020). Through the notion of "coevolution and coexistence," terrestrial radio continues due to its free accessibility in automobiles while concurrently expanding into visual platforms to reach mobile-first audiences. It develops a convoluted environment, where content is enjoyed asynchronously through podcasts while preserving real-time terrestrial essence (Pál & Papp, 2017).

Finally, following Deuze's (2007) concept of convergence journalism, we advocate for the importance of ubiquity being wherever the audience is. This progression has now entered the "Algorithmic Radio" phase, where big data analysis meets human curation to retain audience loyalty versus worldwide streaming giants (Zhao, 2024).

RESEARCH METHOD

This research is descriptive-analytical and qualitative. This method was applied to obtain profound knowledge concerning the adaptation strategy and paradigm shift of radio practitioners toward convergence; hence, it was assumed that a detailed explanation could best provide sufficient information about such knowledge. The respondents were selected through purposive sampling techniques by choosing informants who have authority and are directly involved in the digitization process within radios. There are eight (8) practitioners comprising three major arms or pillars found within any given radio station: management, content, and technical.

Table 1 provides information on how informants were selected in this study, particularly regarding their diverse and strategic backgrounds. The informant composition was designed to represent the three main pillars of the radio industry: broadcasters, station management,

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Table 1. Profile of Research Informants

No	Code	Role/Position	Expertise	Organization Type
1	INF-01	Senior Broadcaster	Programming & Content Strategy	Private Radio (National)
2	INF-02	Senior Broadcaster	Community Engagement	Private Radio (Regional)
3	INF-03	Senior Broadcaster	Visual Radio Production	Private Radio (Regional)
4	INF-04	Senior Broadcaster	Creative Directing	Private Radio (National)
5	INF-05	Radio Station Leader	Business & Monetization	Private Radio (Regional)
6	INF-06	Radio Station Leader	Digital Transformation	Public Radio (RRI)
7	INF-07	Radio Station Leader	Management	Community Radio
8	INF-08	Radio Technician	IT & Broadcast Infrastructure	Private Radio (Regional)

Source: Research Results, 2025

and radio technicians. Through this structure, this research is expected to not only capture information from one side but also to accommodate information from upstream to downstream. Informants came from three different types of institutions, ranging from national private radio stations, regional public radio stations, to community-based radio stations. This was done in order to compare one with another, particularly in terms of how each of them adapted to the demands of digital media convergence.

Primary data collection for this study was conducted through semi-structured digital interviews in February 2025 via the WhatsApp platform. This method was chosen because it is the most flexible and contextual, as well as relevant to the character of radio practitioners, who are highly mobile. The researchers prepared a detailed list of open-ended questions, so the informants' answers would not only be superficial but would delve into real practices and experiences. Each question was formulated with reference to the characteristics of media convergence as proposed by Jenkins (2020, p. 18), so that the empirical data and theoretical framework used remained interconnected. Moreover, to obtain more detailed results, this study also conducted digital ethnography through observation of the social media accounts and radio streaming platforms involved. This step became the basis for the data triangulation process.

The data analysis process in this study was based on the interactive paradigm introduced by Miles et al. (2014, p. 32), comprising three recurring and interrelated streams of activity. The first stage was condensation, in which the transcripts compiled by the researchers were selected and summarized in order to identify important findings that supported the theory used. The next stage is data display, where the data is organized into a thematic matrix with the aim of helping researchers to see data patterns in a more organized and systematic manner. This matrix is organized into three major clusters: operational, content, and business strategy. The final stage is the most important part, namely drawing and verifying conclusions. In this stage, the field data is analyzed and linked to the theoretical framework used. In this process, data consistency is also checked through triangulation to ensure that the results obtained are accurate and precise.

To minimize research bias and maintain data quality and credibility, this study applied several qualitative rigor strategies. First, prolonged engagement was conducted through monitoring the target digital channels for three months (January-March 2025). This was done so that researchers could cross-check the information obtained during interviews with informants, particularly to validate the actual conditions in the field. Second, member checking was con-

ducted, whereby drafts of transcribed interview results were sent back to informants to confirm the accuracy of the transcripts. This was done to prevent misinterpretation, which could lead to errors in the information presented in the paper.

Furthermore, considering that the radio industry is a highly competitive medium, many stations adhere to the principle of anonymity to strictly maintain the confidentiality of the company, making research ethics an integral aspect of this study. All informants' names were disguised using codes INF-01 to INF-08, and the identities of the stations where the informants worked were not mentioned, but only referred to explicitly, except for radio stations that already had a higher profile among the general public. This was done to protect the informants' professional reputations and maintain the integrity of the research. Before the interviews were conducted, the informants were given an informed consent form as a sign that they consented to this research and that all recorded answers could be used for academic purposes only. Additionally, in terms of data storage, the primary data obtained during the interviews was stored in an encrypted folder to prevent misuse of information that could potentially cause various negative and sensitive impacts, both generally and commercially.

RESULTS AND DISCUSSION

Professional Convergence: The Evolution of the Broadcaster's Role

Research has described a shift in broadcaster identity from being a simple voice to becoming a visual icon. Informant 2 stated that the ability to appear on camera (YouTube/Instagram Live) has become a new standard (Fadilah et al., 2017, p. 94). This is convergence professionalism as explained by Jenkins, where the boundary line between radio and television journalism becomes blurred because today's radio broadcasters must be involved in complicated multitasking of both auditory storytelling and visual aesthetics required to keep audiences engaged on digital platforms.

'Theatre of Mind', which once depended purely on sound stories through radio, has now become a multisensory show also involving sight, aimed at an overall experience for the audience. This is not simply an added change in the work description but, as Calvo-Rubio and Rojas-Torrijos (2024) observe, "liquid journalism." The well-defined traditional roles for media workers have 'disappeared', and broadcasters are forced to take up what Perreault and Bélair-Gagnon (2024) describe as aspirational labor. From the neuroscience perspective, this corresponds very well with recent findings about multisensory integration that suggest large overlapping areas between different senses in the human brain, specifically vision and hearing, where information can be processed at once interactively (Sadaf et al., 2023).

These findings show that modern radio can no longer rely solely on audio. Visual elements must become an important part of enhancing the increasingly multisensory audience experience. Moreover, most people nowadays prefer to listen to something while doing other things, such as scrolling through social media, which divides the audience's focus and requires greater sensory integration (Haverkamp et al., 2024). The new school of radio is now becoming aware of this pattern, creating momentum to develop a stronger audio-visual audience experience.

At this point, the role of radio journalists is also shifting. Journalists are no longer a medium for conveying stories through sound, but they have become key actors in the cross-platform media ecosystem. They manage audio and visual narratives simultaneously in multitasking mode. However, this condition clearly shows that the practice of convergence is slowly shifting media boundaries. The transformation from the concept of 'theatre of the mind' to 'multisensory experience' through digital media indirectly exploits the human brain's

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ability to process various sensory modalities simultaneously to pursue more optimal audience engagement.

The Changing Role of Radio Technicians

A Look at Structural Shifts Informant 8 (Technician) indicated that his job has evolved from the simple maintenance of analog transmitters to the management of bandwidth and digital infrastructure. This is a crucial fact that most researchers neglect or fail to notice. There is Infrastructure Convergence, where radio technicians have become “Digital Architects.” They must synchronize terrestrial FM transmissions with lag in Internet streaming. It will be meant to create a smooth listening experience, upstream-to-downstream system integration in current journalism literature.

This progression from hardware to what we may now name a ‘Digital Architect’ supports Leong et al.'s (2023) conception of infrastructure as something related. When he oversees bandwidth in addition to managing transmitters, he is managing a section of what Rony et al. (2021) characterize as ‘The Stack’, the vertically integrated layers of contemporary telecommunications. The structure illustrates that the existence of radio is based on infrastructural technical convergence, which unfortunately stays invisible and unappreciated by the public.

Social Convergence and Media Redundancy (The Cisewu Case, Garut)

A remarkable conclusion of this study is the persistence of community radio in rural locations. When digital infrastructure (the Internet) is paralyzed by geographical boundaries or calamities, terrestrial radio remains the sole source of information. From the standpoint of catastrophe journalism, radio provides the function of "Media Redundancy." When multiplatform outlets fail because of their reliance on energy and cellphone communications, plain terrestrial technology becomes the savior. The phenomenon in Cisewu presents an empirical challenge to the technological determinism commonly found in convergence studies. Alsaleh (2024) contends, the impact of technology growth on the cultured society occupies a unique organic niche. The survival of radio in rural Indonesia indicates that legacy media provides epistemic protection during digital infrastructure breakdowns. In this view, radio is not an old medium being replaced but a resilient medium that works as a social safety net when the digital gap becomes a life-threatening barrier to health communication. It indicates that convergence does not have to kill out older media but rather creates a tiered information security mechanism for society.

It infers that this change is not only a matter of technology but also redefinition of the broadcasting industry from various aspects. One of the most striking aspects is how massive the expansion of competencies has been. Before the digital era, radio broadcasters focused on how to convey information through voice and intonation, so that the concept of ‘theatre of the mind’ could be achieved (Sjuchro et al., 2025, p. 116). Nowadays, broadcasters are required to be able to manage their visual expressions because they are directly exposed to the camera. In addition, these journalists are required to have the skills to play a role. This confirms Jenkins' theory of convergence culture, whereby professional convergence has no strong boundaries, meaning that radio broadcasters, television presenters, and social media content creators have almost the same functionality.

Secondly, from a technical perspective, the shift in the role of radio technicians shows a change that is highly significant. Whereas technicians used to be synonymous with the maintenance of FM and AM transmitters, their role has now shifted to managing servers, IP streaming, and digital distribution systems. Third, in terms of geographical reach, radio has effectively broken terrestrial boundaries and gone worldwide. The inherently localized terrestrial model, which was previously limited by frequency range, has now been transformed into a global

Table 2. Comparison of Radio Operations: Traditional vs. Multiplatform

Dimension	Traditional Radio (Terrestrial)	Multiplatform Radio (Convergence)
Broadcaster Skill	Voice & Intonation	Voice, Visual Expression, Video Editing
Technical Focus	FM/AM Transmitter Maintenance	Server Management, IP Streaming, App Dev
Audience Reach	Localized (Frequency Range)	Global (Internet Connection)
Monetization	Spot Ads (Airtime)	Digital Ads, Sponsorship, Programmatic Ads

Source: Researcher's Work, 2025

platform. Local radio stations are now facing competition with international content providers, but at the same time, they can also target their diaspora communities around the world because of Internet connectivity. Monetization, or the dynamic factor of revenue which moves from a very static airtime sales to more dynamic digital ad and content sponsorship and programmatic advertising, shows that radio is no longer economically valued based only on terrestrial ratings but on cumulative audience engagements across different digital platforms. Table 2 thus reiterates that convergence should be an all-encompassing adaptation of the organizational structure and not simply at the surface level by adding digital platforms to the legacy systems.

The Puzzle of Making Money Online: Changes in Business Strategies

There is a paradox in radio's business strategies. On one hand, their investment in digital equipment (cameras, servers, social media teams) is extremely high. On the other hand, terrestrial advertising still dominates as the main revenue source for radio stations. Informant 5 (Radio Manager) indicated that digital ads are regarded as a bonus, bundled as an add-on package with traditional advertising. This monetization conundrum echoes the 'Platform Press' era outlined by, when news companies are increasingly dependent on global IT corporations for delivery but receive minimal financial return. The fact that digital commercials remain a 'bonus' implies that Indonesian radio is still navigating the 'Double-Product Market'. They are struggling to redefine the 'audience commodity' in a digital landscape where algorithms, rather than broadcasters, now control the flow of advertising capital

However, this study identified emerging trends in more creative monetization forms, specifically programmatic advertising via streaming platforms and native advertising, where broadcasters act as influencers promoting products through both audio and visual content on the station's Instagram channels. Within these broadcast media firms, cross-platform reach has virtually become the principal product sold to advertising. Internal reports from several private radio stations reveal that while terrestrial advertising remains larger in nominal terms, its growth has reached a standstill, whereas the digital creative sector including sponsored podcast production and social media management is registering an annual growth between 15% and 20% (Poell, 2020,p. 20). This transition has caused radio stations to rearrange their internal structures, moving away from traditional broadcasting departments toward a model more akin to multimedia production organizations. Ultimately, it is the mix of localization and emotional proximity afforded by radio that permits this strategy to function as a durable defense against the onslaught of pure music streaming platforms, which fundamentally lack the element of localized emotional attachment with listeners.

Resilient Radio: What Rural Connectivity Can Teach Us

A very enthusiastic empirical fact towards a multiservice media platform for terrestrial radio service was found in Cisewu, Garut. When COVID-19 came and schooling turned to

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online learning, this area with its topographical mountainous internet signal instability suffered much difficulty. Community Radio became 'Air School' here. Analytically viewed from the low cost-high reach character of radio, accessing the internet means expensive data plans plus smartphones for residents, but listening only requires an analog device or old feature phone without any data plan. This case study shows that technologically marginalized communities find information bridging via radio. For example, in the Digital Divide theory, articulation success factors include trust apart from technology itself. Local people trust the information coming from community radio run by their neighbors or anybody's cousin in town more than they believe, the information that comes through social media or hoaxes. This provides a good lesson for national communication policy: digital convergence should not be implemented by shutting down analog channels. Analog and digital have to go hand in hand (hybrid) as redundancy systems for national information, especially in emergencies or infrastructure crises.

Navigating the Challenges and Gaps in Rules During the Tech Convergence Era

There remain significant regulatory gaps in the integration of terrestrial and multi-platform technology in Indonesia. Currently, radio is governed under Broadcasting Law No. 32 Year 2002, long before the explosion of social media and streaming. This has caused overlapping authorities and ambiguity in the rules of the game. FM frequency radios are strictly supervised by KPI, but when the same content is uploaded onto YouTube or Spotify, it enters a 'gray area' with very loose supervision. Field findings show that this regulatory uncertainty hampers the digital investment speed for private radios. There are also worries about licenses for digital broadcasting as well as future allocation frequency spectrum. In addition, there is another layer of burdening issues on music royalty over digital platforms. Radio stations make separate negotiations with two different CMO's for terrestrial and internet transmissions (streaming). This paper proposes that an (integrative) inclusive revision of the Broadcasting Law is highly urgent, which, among others, should recognize radio not only as a user of the frequency spectrum but also as content multimedia across platforms. Without such an adaptive legal framework, Indonesian radio will always be left far behind in the underdog position compared to those global technology giant players who are not bound by any local broadcasting regulation.

Synthesis: Toward a New Paradigm of Radio Journalism

Through an analysis of convergence aspects, this study provides a synthesis of a new paradigm in radio journalism. Before the current digital era, radio was understood in the metaphor of 'the theatre of the mind', where the listener's experience was fully present because the audio elements were transformed into imagination. However, in the multiplatform era, this paradigm has shifted towards a multi-sensory hub, where radio is believed to be a hub or meeting point for various types of information, with audio as its main soul. For example, in the context of broadcast news, broadcasters are now accompanied by visual animations to better visualize the information they convey. Nevertheless, the integration must be structured systematically, not only relying on technological sophistication but also demanding flexibility from human resources in the radio environment. Media convergence without a change in the mindset of journalists will only result in lifeless broadcasts. This study signals that radio is not in a state of extinction but is undergoing a process of transformation to adapt while maintaining its previous vision. If this balance can be maintained, radio will not only be able to survive but also have a great opportunity to remain relevant in an increasingly fluid and distracting media landscape.

Artificial Intelligence (AI) and the Future of Radio Journalism

Multiplatform radio integration has entered its second wave of disruption, with artificial

intelligence beginning to play a role. This study also found that quite a number of radio stations have begun experimenting with AI to improve their operational efficiency. The use of AI in radio occurs at various levels, from content production to radio broadcasting. At the content production level, AI is used to convert broadcast material into radio website articles. Meanwhile, at the radio broadcasting level, the use of AI focuses on AI Voice or virtual announcers to fill broadcasts during non-productive hours. However, this practice has sparked various debates, particularly in terms of broadcasting ethics (informants 1 and 4). Many concerns have been raised that AI will gradually erode the very essence of radio, which has always relied on emotional closeness between humans.

Theoretically, radio is a highly personal medium. The interaction between broadcasters and listeners forms a parasocial communication that, according to various sources, is difficult to replace with AI algorithms. Therefore, this study emphasizes that AI should be positioned as a tool, for example, an audience research tool or technical automation tool. It is undeniable that the future convergence of radio media is highly dependent on radio's ability to achieve collaborative intelligence, where the speed of data processing from AI is combined with empathy, intuition and other contexts that only humans possess. However, the boundaries between the two need to be clarified further.

A Model for Hybrid Radio: Bringing Together Different Ideas

Based on the results of the study, one operational model of hybrid radio was found in which the main components run in parallel. The first component is content elasticity, where radio content is designed from the outset to be highly flexible so that it can be easily converted into various media formats, be it audio, video, or text. This shows that content is no longer locked into one medium but moves freely across many platforms without the need for production from scratch. The second component is technological agnosticism, whereby radio has limitations in its attachment to a particular platform. Radio is required to always be relevant wherever its audience is, so it must have high platform flexibility and not be tied to a single media application or platform. The third component is hyper-locality, which serves as a form of resistance to the dominance of global streaming platforms. Amidst a flood of generic content, radio maintains its mission to voice local issues, often referred to as the ‘voice of the neighborhood,’ and maintain an emotional connection with its listeners. This value is the main distinguishing factor that is difficult for other global platforms to replicate. The final component is structural agility, whereby radio undergoes a transformation into a more adaptive organizational structure in line with its multimedia expertise. In the present and future, radio may rely heavily on content consisting of a wide variety of outputs distributed through a single large building. This may also put an end to the debate about the extinction of radio in the future.

Exploring Ethical Challenges in Multiplatform Radio Reporting

The shift of radio into a multiplatform provides economic opportunities but imposes serious ethical dilemmas on the journalism industry. This study found mainly three ethical challenges, the first being the blurring line between editorial content and commercial content. In their multiplatform broadcasts, they are requested to perform soft selling or native advertising while streaming live on Instagram or TikTok. “How far can a radio journalist maintain their independence when they also act as an influencer for sponsored products? That is an ethical question,” said one respondent. The second challenge lies in the debate on speed versus accuracy. On digital platforms such as X (formerly Twitter) or in WhatsApp groups of radio stations, there is growing pressure to be the first to report any information, for example, about traffic accidents or local disasters (engagements pursued). The verification procedures standard in

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terrestrial radio journalism is neglected. The third is audience privacy. During interactions on their multi-platforms, if personal data are requested and stories of their lives are shared openly, radio ethically binds such information not to be misused by third-party marketing algorithms. Convergence brings about the need for a new "Multiplatform Code of Ethics" that shall regulate, apart from what is said over the microphone, what is uploaded and shared within digital spaces.

To conclude, this paper posits that the integration of terrestrial and multiplatform broadcasting is not simply a technical transformation but leads to the core reorganization of radio as a social institution. Applying media convergence as an approach, it becomes apparent that hybridity lies at the base of resilience for Indonesian radio, hence breaking through the analog-versus-digital dichotomy debate in academia by showing how multisensory hub radio acts between global digitals and important local necessities. This study found that while professional convergence and Al integration make operations more efficient, the human-centric nature forms the core value inside the redundancy infrastructure. Future Glocal oriented journalists could be found through him. Hybridity is a resilient ecosystem that continuously adapts through Mediamorphosis to shifting demands in the digital age. It is beyond a response to what has been labeled as the "triple crisis" that supposedly afflicts the radio. This hybridity denies any aspect of a medium in decline and proves that the supposed symptoms are signs of very healthy activity.

CONCLUSION

This study concludes that the integration of terrestrial broadcasting into multiplatform one is not merely a technological upgrade, but a total change in the broadcasting ecosystem. The new perspective that emerged from this research redefines the role of radio human resources, where broadcasters are no longer merely voices behind the microphone, but they have evolved into creators of cross-media audio-visual content, while technical personnel have transformed into digital system architects who connect analogue frequencies with internet protocols. Amidst the push for full digitalization, terrestrial radio still has a strategic position as a backup information infrastructure, especially in rural areas of Indonesia that are still affected by the 'digital divide'. Radio will never completely disappear, because what is actually happening is a transformation into a hybrid form, combining the speed of digital media with the stability of terrestrial broadcasting. This finding also contributes scientifically to the development of media convergence theory in journalism, particularly regarding the function and resilience of local media, while reminding us of the importance of maintaining terrestrial frequencies as national information insurance when internet infrastructure is disrupted or down.

Based on the comprehensive analysis conducted, this study formulates practical recommendations for the stakeholders. For regulators (KPI and Komdigi), it is necessary to promptly establish regulations regarding a "Universal Service Obligation" for community radio stations in remote areas to ensure the sustainability of their operations as emergency information systems. Technological subsidies or tax incentives for radio stations that converge local content could help maintain information pluralism. For professional organizations such as PRSSNI, the establishment of digital incubation centers is needed to assist small local radio stations in carrying out technical transformations without incurring large investment costs. Regular training in data management and cyber security for radio technicians should be a routine agenda. Finally, radio managers should not implement multiplatform strategies by merely "imitating" popular social media, but by strengthening the unique characteristics of radio: personal voice, public trust, and quick and empathetic response to local issues.

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AI declaration: The authors confirm that Generative AI tools were used solely for the purpose of language editing, grammar correction, and improving the stylistic flow of the manuscript. AI was not used to generate ideas, interpret data, or formulate research conclusions. All intellectual content and factual accuracy remain the responsibility of the authors.

Ethical clearance: This study was conducted in accordance with ethical standards for social science research. Informed consent was obtained from all participants prior to the interviews. To protect the privacy and commercial interests of the informants and their respective organizations, all participant identities have been anonymized using codes (INF-01 to INF-08).

Data availability statement: The data that support the findings of this study (interview transcripts and observation notes) are available from the corresponding author upon reasonable request, subject to the confidentiality agreements made with the informants.

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