Kajian Jurnalisme
Volume 09 No. 01 July 2025
https://doi.org/10.24198/jkj.v9i1.63631

AI Integration in Broadcast Production Management at Radio XChannel

Henny Sri Mulyani[1], Achmad Abdul Basith[2], Bilhaq Sakti Syafri[3], Ridho Danu Prasetyo[4]
[1,2,3,4]Faculty of Communication Sciences, Universitas Padjadjaran, Bandung, Indonesia

Abstract

The use of Artificial Intelligence (AI) in Indonesia has experienced rapid growth. As of early 2025, Indonesian users recorded over 300 million visits to AI applications, placing the country among the top ten globally in AI usage. Worldwide, 87% of organizations had adopted AI in at least one operational function, including within the radio broadcasting sector. Radio XChannel is one of the Indonesian radio stations that began integrating AI into its operations. This study aimed to explore the station's AI adoption strategy and identify the opportunities and challenges faced during implementation. A qualitative method with a descriptive approach was employed. Data were collected through in-depth interviews and documentation of broadcast materials and internal policies related to AI. This study examines how AI is applied in XChannel, based on radio production management processes, and how AI can provide a different perspective. The research findings indicate that XChannel is starting to implement AI to adapt to digital disruption while also addressing the need for efficiency to meet the challenges of the radio business. However, the application of AI remains limited to text-to-audio conversion, playing the role of a news anchor in news segments. Meanwhile, AI is not yet utilized in the live broadcast process and is only employed in content production for the YouTube channel. These findings suggest that the use of AI in the radio industry, specifically at XChannel, is still in its early stages and faces both technical challenges and human resource constraints.

Keywords: AI adoption; artificial intelligence; broadcast innovation; radio broadcasting; XChannel

Abstrak

Penggunaan Artificial Intelligence (AI) di Indonesia mengalami pertumbuhan yang pesat. Pada awal 2025, tercatat lebih dari 300 juta kunjungan ke aplikasi AI dari pengguna Indonesia, menjadikan negara ini sebagai salah satu dari sepuluh pengguna AI terbanyak di dunia. Secara global, sekitar 87% organisasi telah menerapkan penggunaan AI dalam setidaknya satu fungsi operasional pekerjaannya, termasuk di sektor penyiaran radio. Salah satu stasiun radio di Indonesia yang mulai menerapkan AI adalah Radio XChannel. Penelitian ini bertujuan untuk mengeksplorasi strategi penggunaan AI di Radio XChannel serta mengidentifikasi peluang dan tantangan yang dihadapi dalam proses implementasinya. Metode penelitian yang digunakan adalah kualitatif dengan pendekatan deskriptif. Data dikumpulkan melalui wawancara mendalam dan studi dokumentasi terhadap materi siaran dan kebijakan internal terkait AI. Penelitian ini melihat bagaimana proses penerapan teknologi AI digunakan berdasarkan proses-proses manajemen produksi radio dan bagaimana inovasi teknologi berupa AI dapat mempengaruhinya. Hasil penelitian menunjukkan bahwa XChannel mulai menerapkan penggunaan AI untuk menyesuaikan diri dengan perkembangan teknologi diditas sekaligus karena adanya kebutuhan efisiensi untuk menjawab tantangan bisnis radio. Kendati demikian, penerapan teknologi AI-nya masih sangat terbatas pada pemanfaatan AI untuk konversi teks ke audio untuk menjadi pembaca berita dalam segmen berita sisipan. Sementara, dalam konteks penyiaran langsung hanya digunakan pada produksi konten di kanal YouTube. Temuan ini mengindikasikan bahwa pemanfaatan AI di industri radio, dalam hal ini XChannel masih berada pada tahap awal dan menghadapi tantangan teknis serta sumber daya manusia.

***Kata kunci**: adopsi AI; inovasi penyiaran; kecerdasan buatan; penyiaran radio; XChannel*

Correspondence: Dr. Henny Sri Mulyani, M.Si., Faculty of Communication Sciences, Universitas Padjadjaran University, Jl Raya Bandung – Sumedang KM 21 Jatinangor Sumedang 45360. Email: henny.sri.mulyani@unpad.ac.id

Submitted: May 2025, **Revised**: July 2025, **Accepted**: July 2025, **Published**: July 2025
ISSN: 2549-0559 (cetak), ISSN: 2549-1946 (online), Website: http://jurnal.unpad.ac.id/kajian-jurnalisme

INTRODUCTION

In recent years, artificial intelligence (AI) has developed rapidly and become one of the most influential technological innovations, both in everyday life and in the working industry. The technological acceleration of the last decade has led to the emergence of artificial intelligence, which is now a major pillar of digital transformation (Asim, 2024). This development has not only brought about major changes in developed countries but also presents significant opportunities for developing countries to utilize AI technology strategically.

Indonesia is also included among countries that actively adopt AI technology for use in various sectors. In its development, AI has even had a significant impact on the Indonesian journalism ecosystem (Besman & Evita, 2024). In the context of journalism, one of the production management areas that has utilized AI as a differentiator and innovation in the current era is radio broadcast production (Harliantara et al., 2024). However, the emergence of AI in the newsroom also presents a crucial dilemma: whether media institutions should adapt to these technological developments or continue to maintain traditional methods of production (Listiyoningsih et al., 2025).

The use of AI technology in the production process can be a differentiator and make broadcasting more efficient. This could be one of the answers to the current challenges faced by radio-based media, which are experiencing problems in the realms of business and economics. As shown in Figure 1, Nielsen's 2025 report indicates that the national distribution of radio advertising accounts for approximately 7% of total media advertising expenditure. In contrast, digital media holds the largest share at approximately 54%, followed by television at 39%. These figures highlight the urgent need for radio to continue innovating to sustain its business model.

Therefore, radio stations must strive to implement new strategies to maintain their business continuity, including the application of artificial intelligence technology in radio broadcast programs. The implementation of AI can be a crucial strategy for radio-based media companies to adopt, given that one of the biggest challenges they face is digital disruption. Kustiawan et al. (2023) also state that the implementation of AI as part of radio production management can be the first step for radio to remain relevant amid a rapidly evolving media

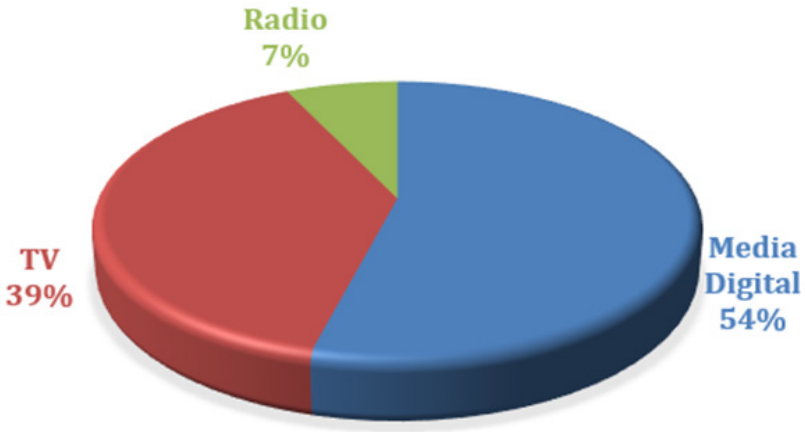

Figure 1. Advertising market share in Indonesia in 2024
Source: Nielsen published by *Katadata.co.id*, 2025

Volume 09 No. 01 July 2025
https://doi.org/10.24198/jkj.v9i1.63631

landscape. This is because radio itself is still considered an efficient and highly flexible medium for mass communication. However, radio does require innovation to remain relevant as a source of information and entertainment that influences society (Arwan et al., 2024).

In line with this, the behavior of radio listeners has undergone a significant transformation, with changes in the way they obtain information. It results from the disruption of digital media through social media and the integration of AI technology. Listeners are now demanding more personalized and interactive content to ensure they are engaged with it. Besides, listeners also demand on-demand content, which has prompted radio stations to utilize digital audio platforms, such as streaming services and podcasts. Radio can also use AI to analyze audience interest, thereby gaining a deeper understanding of its audience (Rostamian & Kamreh, 2024).

This change in radio listeners' content preferences is also confirmed by research conducted by Dwivedi et al. (2021), which states that audiences now prefer internet-based media and digital platforms due to their ease of access and ability to personalize content. This situation necessitates that radio stations keep innovating and introducing breakthroughs to capture the attention of the younger generation, who are one of the primary listener demographics. The use of AI as an innovation could also be a good option, as it is a technology that is quite familiar to the younger generation. The AI implementation can also be used to analyze programs and audiences, enabling radio media to tailor data obtained from social media platforms to better meet the audience's preferences and personalization needs. This approach can then create a more responsive listening experience with a personal touch compared to conventional radio broadcasts (Jia, 2022).

Responding to the challenges faced by radio stations in the face of digital disruption, radio management needs to utilize various efficient production concepts to enhance its appeal and strengthen its competitive advantage. Managing the broadcast media industry is indeed more challenging than other industries. This business is highly dependent on human management, because the success of broadcast media is not only determined by technical aspects, but also by human creativity and skills (Ibrahim, 2024). Ajisafe and Dada (2023) also emphasize that radio stations must adopt adaptive strategies such as integrating digital technologies and utilizing online platforms to maintain and expand their listener base. Diversification of content and enhancing audience interaction are also referred to as ways to strengthen the radio business.

One step to realize this is to optimize resource use effectively and efficiently in the production process. This is the primary key to creating broadcasting innovations that can reach a wider audience. Management plays a crucial role in every organization, including those in the broadcast media industry. In this context, management encompasses not only planning and organizing, but also the effective management of human and material resources to achieve optimal results. Management, as expressed by Havidz and Suprapto (2021), is a series of activities aimed at achieving specific goals by utilizing managerial skills to obtain results through the effective management of others' activities.

Furthermore, production management, according to Herjanto (2004), is a continuous process that uses management functions to integrate resources efficiently to achieve specific goals. In the broadcast media industry, to achieve success, management must be able to manage three main pillars, namely techniques, programs, and marketing. These three elements support each other; techniques relate to the use of appropriate technology, programs focus on creating engaging content, and marketing plays a role in reaching a wider audience (Ibrahim, 2024). When human creativity is used to integrate these three pillars, broadcast media has a great chance of success. In other words, the success of broadcast media depends not only on technical capabilities, but also on how each element in it is managed and synergized optimally.

Along with the rapid development of technology, especially in the world of radio broadcasting, the adoption of artificial intelligence (AI) is increasingly becoming a factor that changes the paradigm of broadcast production. The continuously developing AI technology

has now been used in various forms that support the three main pillars of broadcast media management. Harliantara et al. (2024) stated that one of the most used AI tools in the current era is the use of chatbots for real-time interaction, as well as algorithms that can analyze audience sentiment in depth. The application of this technology provides practical solutions that not only increase efficiency in the production process but also help broadcast media become more responsive to audience needs.

Furthermore, if we focus on radio broadcast production management, AI-based systems that have the competence to carry out tasks previously performed by humans can now automate the audio editing process, detect key moments in the broadcast, create scripts, and even replace the announcer himself (Fieiras-Ceide et al., 2022). In the context of content production, AI implementation can accelerate the broadcast production flow and open many new opportunities for radio stations to create content that is more suitable for audience preferences. A study by Sonni et al. (2024) also stated that the use of AI in media newsrooms to analyze demographic data and create personalization algorithms can generally increase audience engagement by up to 62%. This shows how great the potential of AI is in strengthening the appeal of radio stations, especially in maintaining relevance in the ever-changing digital era.

In the broadcast production management process, Morissan (2011) explains that the main factor that determines the financial success of a radio broadcasting station is the program or event that is broadcast. Therefore, the broadcast program department in a radio station is one of the most crucial departments. The presence of a Program Manager in a radio station also has a heavy task, which is to find out what programs are preferable to the audience and to organize the selection, scheduling, and ranking of program values (Morissan, 2011).

Broadcast program managers are required to understand the needs and interests of the audience to meet the needs and interests of the audience as a whole. This work is considered quite time-consuming and labor-intensive because of the length of the audience research process values (Morissan, 2011). Meanwhile, work that was previously the main responsibility of the program department can now be done mainly with the help of AI, including providing content recommendations based on personalized audience interests. Segmentation and content analysis, which is a complicated process carried out by humans, can be done using an internet database accessed by AI and analyzed using machines, so that it can be done more efficiently (Ashfaq et al., 2023).

Innovative steps were taken by Radio Mustang 88 FM, which successfully answered the challenges of the radio industry in the digital era by launching Aimee, an AI Broadcaster. Aimee is the latest innovation used to increase efficiency in broadcast production, customize content, and capitalize on opportunities to attract a wider audience. The presence of Aimee shows how artificial intelligence technology can be used to present more interactive and personal broadcasts, according to the needs of today's audience. Aimee not only acts as a virtual broadcaster, but is also designed to understand audience interests and build closer relationships with them, especially with the target market of generation Z. This technology allows Radio Mustang 88 FM to create more relevant and dynamic content, provide more personal experience for listeners, and of course maintain audience engagement that increasingly demands the presence of media that is more adaptive and responsive to their needs (Harliantara et al., 2024).

On the other hand, Radio XChannel is also trying to get out of the crisis due to the disruption of the digital era by changing its broadcast format. After the Covid-19 pandemic, Radio XChannel made a major transition by switching from conventional radio to radio without broadcasters. This step brought them a new uniqueness, namely their identity as "*Radio Asyik Tanpa Penyiar,"* which succeeded in attracting the attention of listeners who increasingly wanted innovation in the radio listening experience. This concept of broadcasting without broadcasters was implemented by utilizing a computer-based system to organize the broadcast schedule and flow automatically. Broadcasting approach that uses AI as one part of the content

Volume 09 No. 01 July 2025
https://doi.org/10.24198/jkj.v9i1.63631

not only attracts listeners who seek new and interactive experiences but also positions the station to adapt swiftly to the digital audience behaviors and preferences, which enhances overall engagement and market competitiveness (Furtáková, 2023).

With AI-based broadcast, Radio XChannel presents a new experience for its listeners, where the only broadcaster present on the broadcast is an AI-based newscaster generated through text-to-speech technology. The use of this technology allows Radio XChannel to be more efficient in producing information, while creating a new form of radio broadcasting that is more in line with the needs of listeners in the future. An AI-generated voice with a text-to-speech feature can play a massive role in radio broadcasting. It can effectively improve the work efficiency and quality of audio produced, and also give a different value compared to other broadcasts (Hu et al., 2021). This unique style of radio broadcasting has made XChannel an interesting research subject, especially as it has adopted AI technology, notably in its news anchor role (Hu et al., 2021).

The use of AI in radio broadcasts has been carried out for decades. In 2001, the United States National Weather Service (NWS) introduced 'Paul,' an announcer with a computer-based voice to present weather forecast segments. A decade later, in 2011, the KROV FM radio station based in Texas, United States, introduced a new guest announcer, an AI presenter known as DJ 'Denise.' At that time, Denise could do the work of an announcer, such as reading script text, and did interactive activities such as checking emails and even answering phone calls from the audience. However, Denise was still very dependent on scripts and music playlists that humans had already created. The development of AI in a radio station then got a breakthrough from Futuri, a digital media platform based on artificial intelligence, in 2023. At the time, Futuri launched a radio broadcast program called RadioGPT, which utilized the AI ChatGPT-3 system to collect news, write broadcast scripts, and read the scripts live on air (Furtáková, 2023).

Besides the live-broadcast session, AI also enables radio stations to do behind-the-scenes work that is usually routine tasks, such as scheduling content, improving the script quality, and even analyzing the metadata of the audience (Harliantara et al., 2024). In that way, the usage of AI enables the radio stations to personalize content that will fit the listener's preferences, which strengthens audience engagement and creates a more interactive radio experience. A radio announcer can then be more focused on conducting an on-air broadcast.

This article explores how AI technology is applied and integrated into broadcast production management at Radio XChannel. Furthermore, this article explains AI tools and techniques used in their production process that allow Radio XChannel to present innovation on their broadcasting system, as shown in the tagline "The First AI Radio in Indonesia." This research also reviewed how AI is not only a supporting technology, but also serves as a primary element that changes the way broadcasting works at this radio station.

In addition, this study aims to explore the potential of AI in reinforcing the relevance of radio in this era of digital media disruptions, where audiences demand more personalized and interactive experiences from radio stations. Through exploring a deeper understanding of AI applications within the industry, this paper seeks to offer valuable insights into the future development of radio broadcasting as it embraces technological innovation and enhances production efficiency. Ultimately, the findings of this research will contribute to guiding broadcasters and radio stations in adapting effectively to changing audience expectations and technological advancements.

RESEARCH METHODS

This study used a qualitative descriptive method within the constructivist paradigm. This approach explored how AI was implemented in broadcast production management at Radio XChannel Bandung based on the experiences of the radio announcer and broadcast manager

that was directly involved. According to constructivism, reality is socially constructed through interaction. Therefore, the research aims to understand the meanings formed from these lived experiences (Phillips, 2023).

Consistent with constructivism approach and epistemological assumptions, this research acknowledges that reality is not universally objective, but rather, is shaped by specific local contexts. Social phenomena are seen as products of interactions and interpretations formed by individuals and groups. Knowledge is therefore acquired through understanding the subjective experiences of participants and their social environments. The researcher aimed to uncover how AI technology was perceived, utilized, and operationalized within the radio broadcast workflow, particularly in a localized setting like Radio XChannel Bandung.

Informants were selected purposively, with consideration for their involvement and knowledge related to the use of AI in broadcast production. Initially, three potential informants were identified: the Broadcast Assistant (BA), Account Executive (AE), and Brand Manager (BM). To clarify the organizational structure and the roles of potential informants at Radio XChannel Bandung, Table 1 presents the informant profile based on field observations and interview data:

However, the only key informant interviewed was the Broadcast Assistant, as they are the individuals who are most consistently present at the station for managing daily technical and production operations. More importantly, the BA had firsthand experience in producing broadcast content collaboratively with AI tools and was also the primary recipient and distributor of AI-related content and directives from Radio XChannel's central office. This made the BA a critical informant, not only due to their operational role, but also because they served as a key link in relaying and implementing AI-based broadcast innovations at the local level.

Data were collected through a one-day field observation at Radio XChannel Bandung, during which the researcher observed work routines and the practical use of AI technology. The observation was conducted in a natural setting, aligning with the principles of qualitative research. It emphasizes detailed and in-depth descriptions of phenomena often obtained through interviews, observations, and document analysis (Daruhadi & Sopiati, 2024). An in-depth interview with the BA was conducted using open-ended questions to explore their perspectives and experiences. Additional secondary data were gathered from documentation, articles, and official resources available on the Radio XChannel website. These diverse sources were used to enrich the researcher's understanding of the context and practices surrounding AI-assisted broadcast production.

Data analysis followed the interactive model of Miles et al. (2014), which includes data condensation, data display, and conclusion drawing. The process was carried out inductively, which allows analytical themes to emerge organically from the data. According to Daruhadi and Sopiati (2024), data validity in qualitative research is achieved when the researcher's report accurately reflects the phenomena being studied. It is also acknowledged that reality in

Table 1. Informant Profile at Radio XChannel Bandung

No.	Position	Role Description
1	Broadcast Assistant (BA)	Handles daily broadcast operations, including AI-based content production
2	Account Executive (AE)	Responsible for marketing, advertising, and client relationship management
3	Branch Manager (BM)	Oversees the Bandung office, including strategic planning and operational supervision

Source: Research Result, 2025

Volume 09 No. 01 July 2025
https://doi.org/10.24198/jkj.v9i1.63631

qualitative inquiry is not singular, but plural and dynamically shaped by human perspectives and evolving social constructs. Reliability, therefore, is contextual and ever-changing, rather than fixed and repetitive.

RESULTS AND DISCUSSION

Radio XChannel is a media group that has a wide network consisting of 11 radio stations that are broadcasting across various regions in Indonesia, including many big cities such as Jakarta, Bandung, Surabaya, and Bali. The headquarters of Radio XChannel is located in Jakarta and has been operating since 2017 as a radio network, bringing a modern broadcasting approach. One of the bold taglines carried by XChannel is the "Fun Radio Without Broadcaster," which eliminates the role of traditional radio broadcaster and focuses more on presenting information from curated content and playing music as its main outputs. Facing the digitalization era, XChannel has developed a streaming service to accommodate the shift in audience preferences that are switching to digital media due to ease of access and personalization, thus requiring radio stations to continue to adapt amidst the dominance of social media.

Meanwhile, Radio XChannel Bandung, as the bureau station, has a long history in the broadcasting industry. It started in 1972 as Radio Litasari, or popularly known as Lita FM. Over time, this radio has undergone numerous name changes until finally becoming Radio XChannel in 2019. Despite the branding changes as the station underwent multiple rebrandings, the focus of its broadcast content remains on three main aspects: information, education, and entertainment. Currently, Radio XChannel Bandung prioritizes playing quality music, which is predominantly pop genre music, and presenting talk show sessions, especially live on-air programs that take place during the daytime. With a relatively small team, around eight people, the operation of this radio continues to run efficiently with a work structure that includes a Broadcast Assistant (BA), an Account Executive (AE), and a Branch Manager (BM).

AI in Broadcast Production

In facing the challenges of the digital era, Radio XChannel has begun integrating AI technology to support various aspects of its broadcast programs. According to the informant, BA of Radio XChannel 90.9 FM Bandung, the application of AI in radio programs is carried out selectively and is not intended to replace the primary role of the broadcaster or the broadcast content. Although this AI technology has been implemented across the entire Radio XChannel network, this study specifically focuses on the application and practices at Radio XChannel 90.9 FM Bandung. He explained,

> AI is to be applied in several parts of the program, so only in several parts, not as if taking over. So, not all programs can be applied to AI because, actually, AI is a separate part of the radio program. AI only supports what can be used as radio material (Informant, personal communication, February 7, 2024).

Furthermore, he emphasized that the application of AI functions more as a tool to present content that is more relevant and interesting to listeners. "The application of AI is not to replace the role of humans completely, but rather as a tool to present content that is more relevant and interesting to listeners" (Informant, personal communication, February 7, 2024).

Furthermore, in the broadcast production management process, Radio XChannel produces various types of broadcast content, ranging from music, news, advertisements, to talk shows. Although carrying the concept of "Fun Radio Without Broadcasters," talk shows remain part of the routine program that involves interaction with sources. In Bandung, this talk show only lasts for one hour every afternoon, while the rest of the program is dominated by music playback and news inserts. Broadcast production on RadioXChannel is managed by a relatively small team, mainly by BAs who have a broader role than traditional broadcasters. BAs are tasked with not

only broadcasting programs but also handling technical aspects, such as compiling talk show questions and operating the broadcast system. The presence of AI in broadcasts can be a very valuable assistant in various administrative tasks (Isdayani et al., 2024).

In addition to talk shows, Radio XChannel also broadcasts various insert programs, including news called "Insert News." Unlike talk shows that are produced locally, Insert News is created centrally by the editorial team at Radio XChannel's head office. This team is tasked with finding, editing, and compiling news before finally distributed to the entire XChannel radio network in Indonesia. The news content that is broadcast is more in the form of headlines or short summaries, with a maximum duration of one minute. News that has been produced will be uploaded to cloud storage, so that news updates can be done automatically throughout the radio network without the need for reprocessing at the regional level.

Along with the development of technology, XChannel has begun to adopt AI in broadcast production. One of the main implementations of AI is in the news broadcasting process, where news texts that the editorial team has edited are converted into audio using text-to-voice technology. In this system, the program section is responsible for determining the schedule or broadcast time of the news, while BA assists the News Desk in collecting news materials that will be used as scripts. After the script process is complete, the news material is sent to the Production team to be converted into an AI voice before finally being broadcast to the entire XChannel radio network. The detailed workflow of this AI-based production system is illustrated in Figure 2.

With this system, news distribution becomes faster and more efficient, allowing updates of up to 72 news items per day. According to the informant, the application of AI in XChannel radio programs is currently still limited to news insertion. He explained,

> AI is further because what is currently being implemented is only news insertion, and that is only to fill in the voice. But if it's to find news, it's the same as us. Yes, it can be done by BA, but if it is from the center, there is another special team to find news, and there is a content team there (Informant, personal communication, February 7, 2024).

In addition to news broadcasting, AI is also utilized in other aspects of production, such as assisting in scriptwriting for talk shows and generating interview questions for guests. Broadcast Assistants (BAs) often rely on AI tools to help formulate relevant questions, especially when dealing with guests from diverse backgrounds. However, the final decisions remain in human hands, positioning AI merely as a tool to enhance workflow efficiency. Through this approach, Radio XChannel aims not only to follow the AI adoption trend but also to seriously integrate the technology into its production system as part of a long-term strategy.

Nevertheless, the practical implementation of AI in on-air broadcasting remains limited to a single program: Insert News. In this segment, AI is used to convert written news scripts

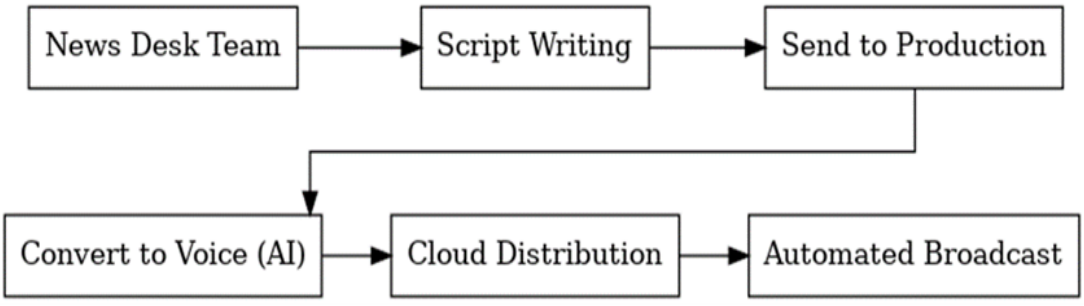

Figure 2. Flowchart of AI-Based Insert News Production at Radio XChannel
Source: Research Result, 2025

Volume 09 No. 01 July 2025
https://doi.org/10.24198/jkj.v9i1.63631

into audio using text-to-voice technology. Other tasks, such as topic selection, research, and scriptwriting, are still entirely handled by human editorial staff. Outside the broadcast content itself, AI is mainly applied in supporting production stages, including research, idea generation, and drafting scripts by the behind-the-scenes team.

Branding and Reality

The minimal application of AI in broadcast programs is a sign of the lack of synchronization between broadcast management practices and the tagline of Radio XChannel, which is one of the main branding images, namely "The First AI Radio in Indonesia." Ismiati (2000, p. 230) said that the position of the tagline in a company is essential as a tool to introduce and instill the advantages offered by a product advertised to consumers.

Referring to the definition and function of the tagline, the application of AI to the Radio XChannel broadcast program still requires various improvements and optimizations to maintain the branding image as an AI-based radio. The reason is that, given the current state of AI implementation, the tagline "The First AI Radio in Indonesia" does not accurately represent the content of the broadcast and is often used solely for advertising or marketing *purposes*. Moreover, several competing radio stations, especially those based in Jakarta, have also started other breakthroughs related to the application of AI, including developing AI-based fictional characters used as broadcasters who can interact two-way with their audiences.

If innovation continues, the use of AI in the radio broadcasting industry is expected to create added value for radio broadcasting. Not to replace broadcasters, but to make broadcast material delivered by broadcasters more varied and complete. For radio broadcasters, AI is an opportunity to reach a larger audience and remain competitive in their business, while experimenting in new directions (Wei et al., 2022).

AI has indeed provided convenience for the media industry, benefiting both experienced media professionals and social media content creators who enrich the media landscape. The future of journalism lies in a close integration between humans and machines, a 'human-machine communication' (Shilina et al., 2023). Without continuous skill development in AI, traditional media workers risk being matched or even surpassed by new, digitally savvy creators in producing and managing media content.

One of the benefits or opportunities that can be optimized by broadcasters from the emergence of AI technology is the ease and speed of work when compared to previous routine activities. AI can quickly do routine work typically performed by humans. For example, writing broadcast scripts, which have been the work of scriptwriters on the radio, can be easily done by AI. It does not take hours or even days to complete a fairly long script, but in a matter of minutes, the work can be completed.

At Radio XChannel, the use of AI to assist its broadcasts includes the preparation of scripts for inserting program materials, as well as the preparation of broadcast materials that human broadcasters will later use. However, Radio XChannel management admitted that they did not give AI the full opportunity to create and produce its broadcast materials. The broadcast program manager of Radio XChannel Bandung revealed that his radio uses AI, among other things, to help make news. News is sourced from existing online news portals, while to change news from text to audio that can be broadcast, XChannel uses AI technology. Given these conditions, it is also necessary to pay attention to the guidelines for using AI that have been issued by *Dewan Pers* (Press Council).

Effectiveness and Limitations of AI

In the guidelines for the use of AI prepared by the Press Council, among other things, it

regulates the obligation for AI content to continue to go through a verification or fact-checking process, so that what is conveyed does not contain fake news, mislead the public, violate copyright, which results in losses for others. News inserts as one of the journalistic products produced by Radio XChannel should be produced under journalistic principles, including 1) based on facts or events that happened; 2) balanced, providing equal opportunities for both parties to provide information; and 3) honesty, that journalistic works must be created through a process that upholds the values of integrity.

Guidelines for the use of AI in journalistic works are contained in Regulation No. 1 of 2025, which includes eight chapters and ten articles. It also covers various aspects, including general provisions, basic principles, technology, commercial publications, protection, dispute resolution, and closing provisions.

In addition to utilizing AI for news production and broadcasting on frequency channels, Radio XChannel also uses AI in its digital internet podcast program. In the podcast, the broadcaster has a conversation or interview with AI ChatGPT to discuss various topics that are currently being widely discussed by the public. The broadcaster asks about the development of the issue in ChatGPT, and ChatGPT provides answers based on information from various sources. Although not like humans, according to the manager of Radio XChannel, the answers given by ChatGPT are quite accurate and provide another perspective for Radio XChannel listeners online. "XChannel then continued to collaborate and utilize AI features. Finally, the idea emerged to apply the latest AI function in ChatGPT 4.0 as one of the contents in the podcast program" (Informant, Personal Communication, February 7, 2024).

The existence of AI broadcasting on Radio XChannel is not always profitable or provides added value. As a radio station, XChannel even loses its main characteristic in radio broadcasting, namely the personal touch that creates familiarity between the broadcaster and the listener. This is what makes the radio familiar to its listeners, and the listeners also have loyalty to the radio.

However, Radio XChannel management considers AI broadcasters to be more relevant because the era of broadcasters and listeners greeting each other on the air is no longer the case. According to Radio XChannel's management, the use of AI broadcasters is seen as more relevant to the current media consumption behavior of their audience. One of the station's representatives explained,

> For us at XChannel, maybe one of the reasons why radio is still cool without broadcasters is that we also see the needs of our current listeners, who may no longer be in the era of sending greetings to each other (Informant, personal communication, February 7, 2024).

Efforts to utilize AI are also being carried out by the currently very popular social media platform, namely TikTok. TikTok employs a different algorithm from other social media platforms, which utilizes AI technology. This makes the content that appears on user accounts more diverse and enables user content to go viral (Mulyani et al., 2022).

XChannel's mistake is assuming that sending greetings is no longer necessary in this era. Radio should be familiar and intimate, so by not implementing it, the personal bond between the radio and its listeners is lost. Greeting each other by sending greetings should be presented differently, specifically through technology. For instance, replying to comments on radio social media posts is a form of interaction that should be maintained in communication on broadcast radio.

One of the strengths of radio is familiarity. Because of its auditory nature and person-to-person communication model, listeners always feel familiar with the broadcaster. However, in the use of AI, this familiarity is not apparent. As shown in Figure 3, during a 15-minute

Volume 09 No. 01 July 2025
https://doi.org/10.24198/jkj.v9i1.63631

Figure 3. Screenshot of a video of an AI host presenting a talk show on Radio XChannel
Source: YouTube Channel @XChannel909fm, 2025

broadcast, the AI broadcaster appears to simply read a pre-written script. It results in the absence of the conversational nuance that typically characterizes traditional radio programs.

Humor, which is also one of the characteristics of communication on the radio, cannot be imitated by AI broadcasters. Radio is close to humor, such as the birth of legendary comedians, Dono, Kasino, and Indro, who were members of Warkop DKI. They were broadcast on Prambors radio, including many great comedians who began their careers on the radio, such as the Bagito Group, Komeng, and Cing Abdel, who rose to fame in the 80s through SK Jakarta radio. "I tried to ask random questions, I also joked with them, but what came out was strange, we thought it was just a robot joke" (Informant, Personal Communication, February 7, 2024).

The use of AI for research and preparation of questions before a talk show is still within reasonable limits. Even for this purpose, AI is quite helpful in perfecting preparations before the talk show begins. If preparing materials and researching topics by humans takes hours, using AI takes only 5 minutes or less to prepare 20 talk show questions.

Radio XChannel management explained that one of their goals in using AI is to increase productivity, not to replace human broadcasters with robots. "On the one hand, we want to show that, as we said earlier, as a radio station, we must be able to update, adapt to needs, with existing technology. What is the goal? To increase productivity too" (Informant, Personal Communication, February 7, 2024).

But on the other hand, the broadcaster, as the spearhead of the broadcast, plays a very central role. The broadcaster is not only the person who delivers the broadcast message, but also adds emotion to each message delivered, making the message more meaningful. In addition, in broadcast programs filled by AI, the voice character between programs tends to be the same, because AI can only display a limited range of voice characters. The power of radio is not only in the message conveyed, but more in the media itself (Hayati & Ariestanty, 2023).

The existence of this AI broadcaster, if observed, is also an effort to make Radio XChannel more efficient in spending. This is because the use of AI is done to replace broadcasting in reading the news. In one day, there are 72 news stories that can be produced and distributed in various broadcast hours. The news is a 1-minute news broadcast insert.

As a radio station that predominantly broadcasts music, the presence of AI is used as a complement and assistant in the production of news reports. However, for musical works that require a good understanding and taste in music, Radio XChannel still entrusts the selection of music played on the radio to a Music Director (MD). MD is the only person who works at the head office and is tasked with preparing music playlists for the entire Radio XChannel network, which currently consists of 11 broadcast radio stations in Indonesia. This is a response to the finding that radio management in West Java is still based on a conventional business model that fails to meet the demands of the current digital media landscape (Abdurrahman et al., 2025).

Ethical and Regulatory

Technological developments have opened space for AI to shape the media landscape. A number of AI-based technology developers have successfully created outputs that closely resemble those produced by humans. Various communication-related tasks that were once the domain of professionals can now be performed effectively with AI assistance. For instance, design work that previously required professional graphic designers can now be done by non-experts using AI tools, often with highly satisfying results. Similarly, video production, once exclusive to skilled videographers, can now be executed with AI in styles that closely mimic human creativity. The integration of AI into communication practices has sparked debate about whether AI-generated content can fully convey human communication intent. In this context, the adoption of robotic journalism in newsrooms has emerged as a trend that brings both opportunities and challenges to the media sector (Hafied et al., 2025).

Several institutions have begun to regulate the use of AI. For example, in the academic sphere, the use of AI must not violate academic rules that uphold the values of professionalism and honesty. Then, in the media sphere, especially for journalistic works, the Press Council has issued Press Council Regulation No. 1 of 2025, which contains guidelines for the use of AI in journalistic works. In general provisions, the Press Council describes AI as information technology that allows digital devices to read, write, create images, create sounds, create moving images, and perform analysis, to make it easier for humans to carry out activities. In this case, the position of AI is to facilitate human work, or in the context of journalism, not to replace journalists.

In the basic principles regulated by the Press Council, journalistic works created using AI must still meet the rules and guidelines regulated in the journalistic code of ethics, such as verification discipline, honesty, and also the principle of presumption of innocence and avoiding things that smell of obscenity, lies, slander, or sadism. Press companies are also expected to provide information on journalistic works in the form of images or human personnel, including those generated by AI. This certainly refers to the development of AI, which is widely misused to deceive the public. Even in the principles of dubbing and voice synthesis, the personalization of characters created with AI must obtain approval from the owner of the original voice. Some time ago, during the election, the news about AI voices circulated to deceive the public because they seemed to be the voice of one of the candidates, even though they were just engineered products.

Although AI can perform some tasks that are usually done by humans, in reality, the human function in the radio industry cannot be replaced entirely. Radio as a personal communication medium still requires human presence. This is because the messages conveyed by the radio

Volume 09 No. 01 July 2025
https://doi.org/10.24198/jkj.v9i1.63631

are personal and intimate. This certainly requires the function and role of a real human voice that makes two-way communication between the broadcaster and the radio sound natural, like everyday conversation. Radio XChannel, in utilizing AI, must still pay attention to the main principles of radio broadcasting and also the main principles of journalism, adhering to honesty and verification. By using algorithms, neural networks, and machine learning languages, radio broadcasts can be created without human intervention or with minimal human involvement (Toptaş, 2024).

Potential and Future Development

Radio XChannel has started to develop the use of AI, not only converting text to audio, but also experimenting with the latest OpenAI features, especially ChatGPT. It also includes experiments on using ChatGPT to create video interview content or audio-visual podcasts. However, in the consideration of the Radio XChannel production team, making audio-visual podcasts using AI requires more mature filtering, because the information provided by the interviewer and answered by AI may contain errors. To avoid this, efforts to create podcasts using AI are still limited to trials and are published through the Radio XChannel YouTube channel, not on terrestrial channels. They claim that terrestrial radio or broadcasts that use frequencies have stricter rules and are also supervised by the Indonesian Broadcasting Commission (KPI). However, in its development, KPI was unable to reach the dynamics of broadcasting, which were so rapid (Sjuchro et al., 2025) that the existence of AI cannot be reached by the regulations that are currently in effect.

Another experiment conducted by Radio XChannel in the use of AI is related to comedy or jokes. They tried to create comedy material using AI, although the results were not entirely as expected. The jokes made seemed robotic, unnatural, and did not suit the audience's sense of humor.

In the future, as a radio station that predominantly broadcasts music, Radio XChannel can utilize AI to support the compilation of the list of songs played. This is because, in a digital system, song selection is based on algorithmic data that can be directly collected by the technology system, rather than relying on manual requests from listeners to the radio station. The radio automation system managed by AI can create a musical flow that matches the aesthetics desired by the radio station, so that it can effectively balance the music and sound components on the broadcast (Kuyucu, 2020).

CONCLUSION

This research illustrates the strategic adoption of AI by Radio XChannel as a response to the challenges of digital disruption and the rapidly evolving media landscape. The findings highlight that although the AI implementation, particularly the use of text-to-audio conversion for news inserts, represents a breakthrough innovation, its application remains at a very early stage, especially at the Bandung city bureau. This early stage of implementation can be interpreted either as Radio XChannel's initiative to utilize the opportunities in radio broadcasting with the help of technology, or as an effort to increase efficiency in managing human resources within the business sector.

Despite the bold statement and main tagline branding of being "The First AI Radio in Indonesia," the study reveals that AI's role at Radio XChannel remains a supportive tool rather than a transformative technological breakthrough. The usage of AI in behind-the-scenes processes, such as exploring content preferences or optimizing algorithms to deliver personalized audience experiences, remains very limited. Nevertheless, this research provides

valuable practical insights about the implementation of AI tools in the Indonesian radio broadcasting industry. It also highlights that there is still a lot of potential that can be utilized from AI to increase operational cost efficiency, digital content management, and programming diversification. While it also emphasizes the need for an ethically proper way of AI integration that preserves radio's unique value, which delivers personalized content and engaging interactive experiences for its audiences in the digital era.

REFERENCE

Abdurrahman, M., Dulwahab Sufyan, E., Salma, A. N., & Parsono, S. (2025). From broadcasters to herbal sellers: The commercial-ethical shift in indonesian local radio. *Journal of Radio & Audio Media*, 1–14. https://doi.org/10.1080/19376529.2025.2502764

Ajisafe, I. O., & Dada, D. (2023). Radio broadcasting in the digital age: Adapting to the challenges of the 21 st century. *International Journal of Advanced Mass Communication and Journalism*, *4*(1), 36–44. http://masscomjournal.com/archives/2023.v4.i2.A.69

Arwan, A., Syarifah, S., & Darmawati, D. (2024). Analisis penggunaan media radio republik indonesia sebagai siaran pendidikan di Pekanbaru dan Kuantan Singingi. *Jurnal Educatio: Jurnal Pendidikan Indonesia*, *10*(2), 286–295. https://doi.org/10.29210/1202425243

Ashfaq, R., Nabi, Z., & Rohit. (2023). Artificial intelligence and the Indian media industry: The future is now. *The Journal of Media, Culture and Communication*, *3*(1), 14–21. https://doi.org/10.55529/jmcc.31.14.21

Asim, D. S. A. S. (2024). A significance of artificial intelligence in overall development of human in the digital era. *International Journal For Multidisciplinary Research*, *6*(2), 1–5. https://doi.org/10.36948/ijfmr.2024.v06i02.15596

Besman, A., & Evita, N. (2024). AI in semi-automated journalism: A review of Indonesia's journalistic ethics. *Jurnal Studi Komunikasi*, *8*(3), 583–594. https://doi.org/10.25139/jsk.v8i3.7978

Daruhadi, G., & Sopiati, P. (2024). Research data collection. *International Journal of Social Service and Research*, *4*(7). https://doi.org/10.46799/ijssr.v4i7.863

Dwivedi, Y. K., Ismagilova, E., Hughes, D. L., Carlson, J., Filieri, R., Jacobson, J., Jain, V., Karjaluoto, H., Kefi, H., Krishen, A. S., Kumar, V., Rahman, M., Raman, R., Rauschnabel, P. A., Rowley, J., Salo, J., Tran, G. A., & Wang, Y. (2021). Setting the future of digital and social media marketing research: Perspectives and research propositions. *International Journal of Information Management*, *59*, 102168. https://doi.org/10.1016/j.ijinfomgt.2020.102168

Fieiras-Ceide, C., Vaz-Álvarez, M., & Túñez-López, M. (2022). Artificial intelligence strategies in European public broadcasters: Uses, forecasts and future challenges. *Profesional de La Información*, *31*(5). https://doi.org/10.3145/epi.2022.sep.18

Furtáková, L. (2023). Dokáže chatgpt nahradiť moderátora spravodajstva v rozhlase?// can chatgpt replace a radio news anchor? In *Quo vadis <generated by AI>*. UCM FMK. https://www.researchgate.net/publication/371761230

Hafied, H., Irwanto, I., Surjatmodjo, D., & Latuheru, R. (2025). AI-driven media evolution: exploring automated journalism's impact on industry's future. *Kajian Jurnalisme*, *8*(2), 205–218. https://doi.org/10.24198/jkj.v8i2.53801

Harliantara, H., Sompie, D. J., & Sutika, I. M. (2024). Radio broadcasting with artificial intelligence: A case study on Radio Mustang Jakarta. *Communicatus: Jurnal Ilmu Komunikasi*, *8*(1), 121–138. https://doi.org/10.15575/cjik.v8i1.34403

Havidz, H. B. H., & Suprapto, E. (2021). The role and function of management in global

organizations. *Dinasti International Journal of Digital Business Management*, *2*(4), 744–753. https://doi.org/10.31933/dijdbm.v2i4.1201

Hayati, K., & Ariestanty, C. (2023). Konstruksi pendengar radio pada masyarakat Indonesia (studi kasus pada aplikasi Noice). *Global Komunikas: Jurnal Ilmu Sosial Dan Ilmu Politik*, *6*(1). https://doi.org/10.33822/gk.v6i1.5756

Herjanto, E. (2004). *Manajemen produksi dan operasi* (2nd ed.). Grasindo.

Hu, M., Xiang, Z., & Li, K. (2021). Application of artificial intelligence voice technology in radio and television media. *Journal of Physics: Conference Series*, *2031*. https://doi.org/10.1088/1742-6596/2031/1/012051

Ibrahim, R. (2024). Manajemen penyiaran Radio Arrisalah dalam meningkatkan minat pendengar pada era new media. *Al-Fiqh: Journal of Islamic Studies*, *2*(2), 80–88. https://doi.org/10.59996/al-fiqh.v2i2.525

Isdayani, B., Thamrin, A. N., & Milani, A. (2024). Implementasi etika penggunaan kecerdasan buatan (AI) dalam sistem pendidikan dan analisis pembelajaran di Indonesia. *Digital Transformation Technology*, *4*(1), 714–723. https://doi.org/10.47709/digitech.v4i1.4512

Ismiati, N. (2000). *Slogan dan tagline senjata pamungkas iklan*. Gramedia Pustaka Utama.

Jia, Z. (2022). Analysis methods for the planning and dissemination mode of radio and television assisted by artificial intelligence technology. *Mathematical Problems in Engineering*, *1*. https://doi.org/10.1155/2022/7538692

Kustiawan, W., Nabila, S. T. P. G., Sembiring, N. B., Salam, A. A., Lubis, S. Z., Nandini, N., & Sayrevi, M. Z. (2023). Radio broadcasting basic. *Jurnal Pendidikan Tambusai*, *7*(2). https://doi.org/10.31004/jptam.v7i2.6933

Kuyucu, M. (Michael). (2020). Artificial intelligence in media: Radio automation systems as the first artificial intelligence application in media in the terms of "threats" and "opportunities." *Digital Transformation and Innovation 4th International New Media Conference (25-26 April 2019, Istanbul, Turkey)*, 133–168.

Listiyoningsih, R., Pawito, P., & Rahmanto, A. N. (2025). Exploration of media ethics in the AI Era: A case analysis of Radarsolo.com. *Kajian Jurnalisme*, *8*(2), 189–204. https://doi.org/10.24198/jkj.v8i2.59388

Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE Publications.

Morissan. (2011). *Manajemen media penyiaran: Strategi mengelola radio dan televisi*. Kencana.

Mulyani, H. S., Kusmayadi, I. M., & Basith, A. A. (2022). TikTok sebagai media kampanye pengelolaan sampah masker di masa pandemi bagi generasi Z. *JE (Journal of Empowerment)*, *3*(1), 103–114. https://doi.org/10.35194/je.v3i1.2389

Phillips, M. J. (2023). Towards a social constructionist, criticalist, Foucauldian-informed qualitative research approach: Opportunities and challenges. *SN Social Sciences*, *3*, 175. https://doi.org/10.1007/s43545-023-00774-9

Rostamian, S., & Kamreh, M. M. (2024). AI in broadcast media management: Opportunities and challenges. *AI and Tech in Behavioral and Social Sciences*, *2*(3), 21–28. https://doi.org/10.61838/kman.aitech.2.3.3

Shilina, M. G., Volkova, I. I., Bombin, A. Y., & Smirnova, A. A. (2023). Artificial journalism: The reverse of human-machine communication paradigm. Mapping the field of AI critical media studies. *RUDN Journal of Studies in Literature and Journalism*, *28*(4), 757–768. https://doi.org/10.22363/2312-9220-2023-28-4-757-768

Sjuchro, D. W., Al-Faqih, M. Z., Sumadiria, A. H., Zubair, F., Gemiharto, I., Syuderajat, F.,

Basith, A. A., & Kusnandar. (2025). *Etika dan regulasi media*. Simbiosa Rekatama Media.

Sonni, A. F., Hafied, H., Irwanto, I., & Latuheru, R. (2024). Digital newsroom transformation: a systematic review of the impact of artificial intelligence on journalistic practices, news narratives, and ethical challenges. *Journalism and Media*, *5*(4), 1554–1570. https://doi.org/10.3390/journalmedia5040097

Toptaş, S. (2024). Geleneksel radyodan yapay zekâ radyo yayıncılığına; 2. dalga podcastler ve alternatif yayıncılık. *Akdeniz Üniversitesi İletişim Fakültesi Dergisi*, *46*, 133–152. https://doi.org/10.31123/akil.1537647

Wei, M., Scifo, S., & Xu, Y. (2022). Artificial intelligence and radio broadcasting opportunities and challenges in the Chinese context. In *The Routledge Companion to Radio and Podcast Studies* (1st ed.). Routledge.