

THE ROLE OF AI IN THE AUDIO PRODUCTION OF THE RADIO FEATURE PROGRAM “SUARA DARI TANAH JAUH”

Rachel Fauziyah Taupiq¹, Mohammad Ismed²
Politeknik Negeri Media Kreatif¹, Universitas Dian Nusantara²

¹ rachelfauziyahtaupiq29@gmail.com

² mohammad.ismed@undira.ac.id

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ABSTRACT

This study examines the role of artificial intelligence (AI) in the audio production process of the radio feature program Suara dari Tanah Jauh, aired on Gaul FM 87.8 Semarang. Using a descriptive qualitative approach, data were collected through observation of the production workflow, a literature review, and a questionnaire on audience perceptions of AI-assisted sound elements. The findings show that AI tools such as Agent.mix.audio, Suno.ai, and ElevenLabs.io support the mixing person in generating sound effects, backsound, and voice elements while working alongside the Cut to Cut editing technique that structures the narrative flow. AI functions as a creative collaborator that enhances efficiency and precision, while artistic decisions remain in the hands of the mixing person, reinforcing rather than replacing the human touch in radio production. This study contributes to the understanding of AI-assisted radio production by positioning AI as a creative collaborator rather than a substitute for human expertise.

Keywords : artificial intelligence, cut to cut, mixing person, radio feature, sound design

INTRODUCTION

Radio is often regarded as a mass medium that has lost its relevance in the digital era. However, empirical data suggest otherwise. A Nielsen (2023) survey of radio listeners in 11 major Indonesian cities found that 72% of radio listeners were still familiar with Radio Republik Indonesia (RRI), and nearly 40% had listened to RRI broadcasts within the previous year. Meanwhile, GoodStats (2024) reported that Indonesians spent an average of 32 minutes per day listening to radio. These findings indicate that radio remains a media choice, particularly among younger audiences, provided that the quality of its production continues to improve. The continued presence of public radio such as RRI amid the expansion of digital media was also highlighted by The Indonesian Voices (2018), which emphasised the importance of radio content that remains relevant to the needs of contemporary listeners.

Improving the production quality of radio programs, particularly feature programs, involves several technical challenges during post-production. These include limited libraries

of original sound effects and backsound, rigid transitions between audio elements, and limited time and resources for producing high-quality supporting audio elements. The development of artificial intelligence (AI) offers new possibilities for addressing these challenges. AI-based tools such as Agent.mix.audio, Suno.ai, and ElevenLabs.io can now be used to generate sound effects, backsound, and other supporting voice elements more quickly and precisely.

The main issue addressed in this study is the extent to which artificial intelligence plays a role in the audio production process of radio feature programs and how this role coexists with that of the mixing person as the creative director. The urgency of this study lies in the limited research on the integration of AI into Indonesian-language radio production, particularly feature programs that require strong narrative and emotional qualities.

Research on the use of AI in media production has largely focused on video production, digital journalism, and multimedia content creation. Studies specifically addressing the use of AI in the audio production of radio feature programs remain relatively limited, particularly within the context of radio broadcasting in Indonesia. Therefore, this study seeks to address this gap by analysing how AI collaborates with the mixing person in the production of radio feature audio.

Based on this perspective, this study aims to describe the role of artificial intelligence in the audio production process of the radio feature program *Suara dari Tanah Jauh* at Gaul FM 87.8 Semarang, including how the use of AI coexists with the Cut to Cut editing technique employed as the framework for structuring the narrative flow. The novelty of this study lies in understanding AI as a creative collaborator in radio feature production. AI does not function as a replacement in the mixing process but rather as a supporting technology that enhances human creative capacity during audio production. Accordingly, this study is expected to provide an understanding of the position of AI as a creative aid, rather than a replacement, in radio audio production in the digital era.

LITERATURE REVIEW

The production of radio feature programs is a creative process that combines narration, interviews, music, sound effects, and ambience to create an immersive listening experience. As an auditory medium, the characteristics of radio make the arrangement of sound elements crucial to the effectiveness of message delivery. The concept of theatre of mind explains how listeners construct mental representations through a combination of various audio elements, making the production process not only technical but also communicative and artistic (Ong, 2012; McLeish & Link, 2015; Beaman, 2019). A systematic literature review by Privitera et al. (2025) further demonstrates that audio is a key component in creating immersive stories through the integration of narrative, sound, music, and soundscape, which can enhance audiences' emotional engagement. These findings reinforce the importance of audio design in creating a richer listening experience.

Within this process, mixing plays a crucial role in creating a balance between narration, music, sound effects, and ambience. Owsinski (2022) explains that mixing is a creative process that shapes the emotional character of an audio work rather than merely combining multiple audio tracks. This view is supported by Hausman et al. (2016), who emphasise that mixing is an important stage in achieving broadcast production quality capable of maintaining audience attention. A study by Rizkiyah and Ismed (2025) on the radio drama program *Wiracarita Dewabrata* similarly demonstrates that the mixing person remains central to artistic decision-making, regardless of the genre of the program being produced.

Advances in digital technology have influenced the way radio programs are produced. Ismed (2020) states that radio continues to adapt to the digital media ecosystem through innovations in content production and distribution. Moyo (2021) further argues that media convergence encourages the development of new production patterns that are more flexible,

efficient, and digitally based. In line with this development, Utomo, Ismed, and Satyahadi (2025) show that the use of visual technologies such as motion graphics can also strengthen the appeal of radio broadcasting in the era of media convergence.

In recent years, artificial intelligence (AI) has increasingly been applied across various media production processes, including audio production. Nah et al. (2023) explain that generative AI can support human creativity through synergy between computational capabilities and human innovation. Similarly, Dell'Acqua et al. (2023) found that knowledge workers collaborating with AI demonstrated improvements in productivity and work quality, while Hitsuwari et al. (2023) found that creative works resulting from human–AI collaboration can receive aesthetic evaluations comparable to those produced entirely by humans. Furthermore, Guzman and Lewis (2024) emphasise the importance of understanding AI as a supporting technology that extends human creative capacity rather than replacing creative workers.

Research by Cui et al. (2025) in the advertising industry also shows that human–AI collaboration is most effective when structured through a co-creative process model in which AI functions as a working partner rather than a replacement for human roles. Consistent with this perspective, Owsinski (2022) emphasises that human judgment remains essential in artistic decision-making during the mixing process. Thus, the use of AI in radio production does not eliminate the role of the mixer; instead, it can improve production efficiency by providing sound effects, backsound, voice synthesis, and by accelerating and increasing the precision of the mastering process.

Based on this literature review, most existing studies still focus on AI in the context of multimedia production, digital journalism, or the creative industries more broadly. Research specifically exploring collaboration between AI and the mixing person in the production of radio feature programs in Indonesia remains very limited. Therefore, this study seeks to address this gap by analysing the use of Agent.mix.audio, Suno.ai, and ElevenLabs.io as creative collaborators in the production of the radio feature program Suara dari Tanah Jauh.

METHODS

This study employed a descriptive qualitative approach focusing on the role of artificial intelligence in the production and post-production stages of the radio feature program Suara dari Tanah Jauh at Gaul FM 87.8 Semarang. The object of the study was the program's audio production process, with the unit of analysis focusing on the use of AI-based tools, namely Agent.mix.audio for mixing and mastering, Suno.ai for generating backsound and background music, and ElevenLabs.io for synthesising and enhancing voice and narration elements.

The primary data were collected using two techniques. First, observations were conducted throughout the production workflow, from pre-production and recording to the mixing stage, to identify the points at which AI was used in the process. Second, a literature review was conducted by referring to radio production literature (Romli, 2017; McLeish & Link, 2015; Owsinski, 2022) as well as literature on the use of AI technology in audio production. As supporting data for triangulation, a questionnaire was also distributed through Google Forms to obtain initial audience perceptions of the quality of audio elements produced with AI assistance. The questionnaire included both open-ended and closed-ended questions. The questionnaire data were not subjected to inferential statistical analysis but were interpreted descriptively to strengthen and confirm the findings derived from observations and the literature review.

The data were analysed using the Miles and Huberman (1994) model, which consists of data reduction, data display, and conclusion drawing. This analysis was used to map the role of AI at each stage of production and to assess the extent to which its role coexists with the creative decision-making of the mixing person.

ANALYSIS AND DISCUSSION

Artificial intelligence plays a role at several points in the production workflow of the radio feature program Suara dari Tanah Jauh. During pre-production, AI was used to explore ambience references and sonic nuances appropriate to the setting of the story. During production, ElevenLabs.io was used to synthesise and enhance the narrator's voice elements when field recordings had limitations in audio quality. During post-production or mixing, Suno.ai was used to generate original backsound and background music, while Agent.mix.audio assisted with sound-level balancing, equalisation, and final mastering.

The use of AI did not replace the Cut to Cut editing technique that serves as the framework for structuring the narrative flow; rather, it enriched the supporting elements within that framework. Direct cuts between recorded audio, narration, interviews, and vox pops were maintained without additional transitions to keep the narrative concise and focused. Meanwhile, AI-generated sound effects and backsound filled the emotional spaces between these cuts, thereby strengthening the dramatic atmosphere.

The role of the mixing person remained central throughout this process. AI functioned as a supporting tool that accelerated the workflow and expanded artistic possibilities; however, final decisions regarding sound selection, composition, and emotional emphasis remained under human control. The findings indicate that artificial intelligence does not fundamentally alter the structure of radio audio production but shifts the role of the mixing person from primarily performing technical tasks toward making more creative decisions. AI should therefore be understood as a technology that enhances production capabilities rather than one that replaces the human role.

These findings extend Owsinski's (2022) understanding of mixing as an artistic process by emphasising that human creativity remains at the centre of creative control even when supported by AI-based tools. In other words, AI functions as a creative collaborator rather than a replacement for the creator, consistent with the finding that technological integration in radio production strengthens rather than eliminates the human artistic touch (Ismed, 2025).

The role of artificial intelligence at each stage of the program's audio production process is summarised in Table 1.

Table 1. The Role of AI in the Audio Production of Suara dari Tanah Jauh

Production Stage	AI Tool/Resource	Role in Audio Production
Pre-production	AI-assisted ambience exploration	Exploring sonic references and ambience appropriate to the story
Production	ElevenLabs.io	Supporting voice and narration elements when recorded material was limited
Post-production/Mixing	Suno.ai and Agent.mix.audio	Generating backsound/background music and assisting with level balancing, equalisation, and mastering

Source: Research findings

As shown in Table 1, AI was not applied uniformly throughout the production process. Its role varied according to the requirements of each stage, ranging from supporting sonic exploration to generating and processing specific audio elements. This distribution of functions indicates that AI operated as a supporting production resource, while the mixing person remained responsible for determining how the resulting audio materials were selected and integrated into the program.

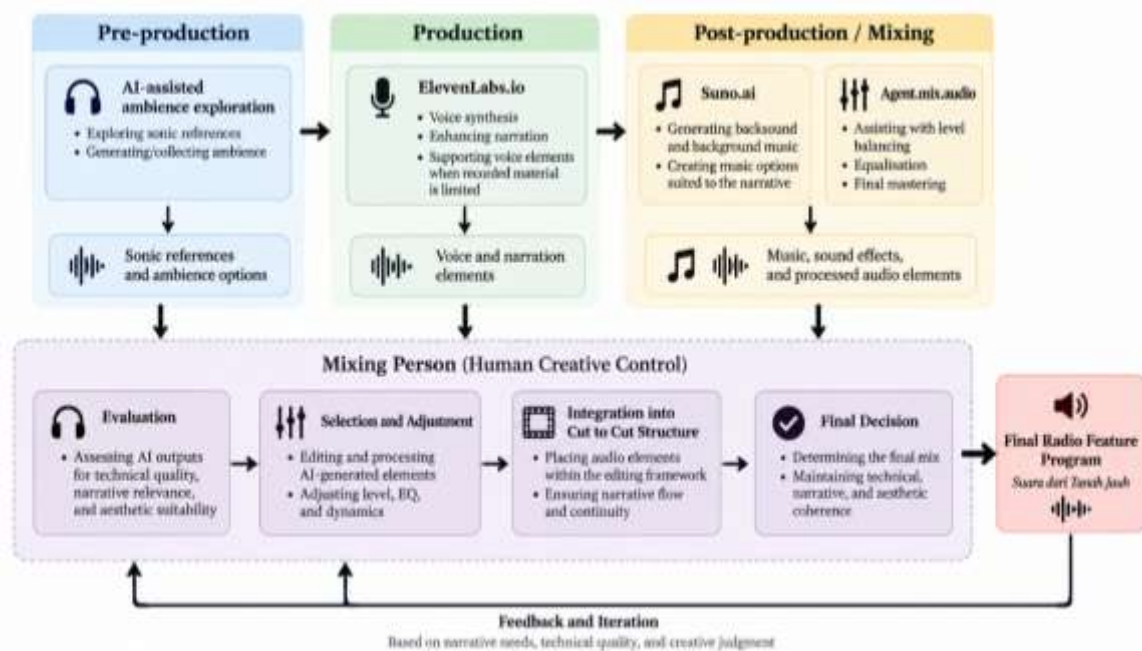


Figure 1. Human–AI Collaboration in the Audio Production Workflow
Source: Research findings

CONCLUSION AND RECOMMENDATIONS

This study shows that artificial intelligence plays an important role as a creative aid in the audio production of the radio feature program *Suara dari Tanah Jauh*. The use of Agent.mix.audio, Suno.ai, and ElevenLabs.io supports the mixing person in generating and processing sound elements more efficiently and precisely. However, AI does not replace the Cut to Cut editing technique, which remains the main framework for structuring the narrative flow of the program.

The mixing person remains central to determining the artistic direction, selecting sound elements, and maintaining the emotional coherence of the program. AI functions as a creative collaborator that expands technical and artistic possibilities, while final creative decisions remain under human control. Thus, the integration of AI into radio production reinforces rather than replaces the human role in the creative process.

Future research is recommended to further examine ethical issues and originality in the use of AI-generated audio, particularly in relation to copyright and creative ownership. Further studies may also develop practical guidelines for integrating AI into radio production workflows while maintaining the artistic identity and professional standards of radio broadcasting.

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