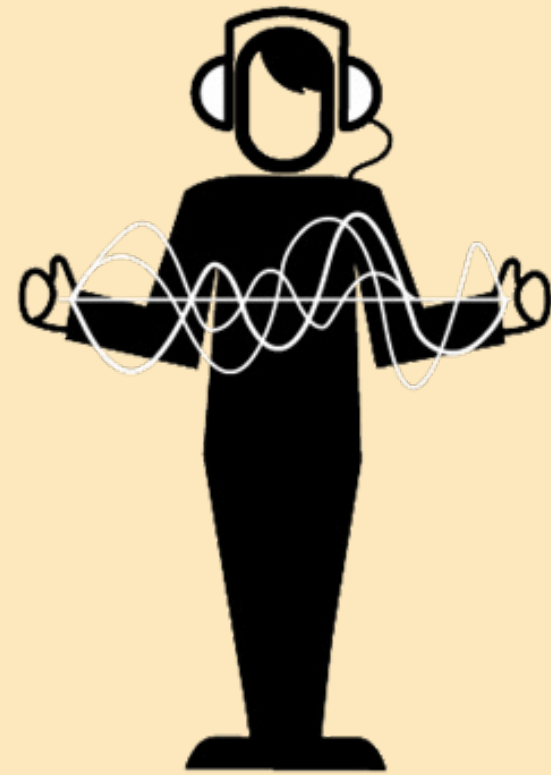# Sound mixer

AI overview

AI is starting to transform the role of sound mixers by enhancing workflows and automating technical tasks such as noise reduction, sound matching, and spatial audio capture. AI-driven tools could help with more complex audio tasks, such as microphone array configurations, allowing sound mixers to adapt recordings in post-production. These tools could also automate metadata tagging and improve archiving.

To prepare for the future, sound mixers could focus on mastering AI tools for advanced audio capture, virtual production, and real-time sound editing. Embracing these technologies could increase efficiency while maintaining the artistry of sound mixing, allowing sound mixers to remain at the forefront of the industry.

What AI tools can I use right now? – Efficiency & workflow opportunities

Pre-production

Project management and scheduling: AI tools can assist with scheduling, resource allocation, and script annotation, improving visibility and reducing errors.

Kit list preparation and cost prediction: AI-driven systems could recommend equipment and predict costs based on the script and production requirements.

Digital mixing console automation: AI could automate setup and soundcheck procedures for digital consoles, saving time and ensuring optimal sound quality from the start.

Production

Automatic gain adjustment: Some modern field recorders utilise AI to adjust gain levels in real time, ensuring optimal recording quality.

Context-aware mixing: AI could assist with real-time compression, noise reduction, and level balancing, adapting to changes on set.

AR visualisation and remote collaboration: AI-powered augmented reality tools could enhance coordination and communication, enabling remote monitoring and adjustments.

Future tools

AI-driven audio configuration: AI tools could auto-configure audio settings, streamlining setup processes and ensuring optimal sound quality.

Autonomous robotics for microphone movement: Robots could automatically adjust microphone positions, especially in challenging environments or for complex shots.

Acoustic environment prediction: AI could model and predict acoustic conditions of filming locations, suggesting the best microphone positions and equipment.

How can I prepare for the future?

As technologies develop, keeping up-to-date with the latest opportunities is important.

These are some of the areas that sound mixers may need to understand in the future.

Future Tech	Description	Learning resources
Auto Configuration	AI is enabling some consoles and digital workstations that ability to auto configure. Watch out for 'given brief' to direct configuration tools with auto setup solutions.	Check out ScreenSkills Training, events and opportunities page for up to date courses. Audio console manufacturers provide many training resources
Advanced Wireless Audio Systems	Innovations in wireless microphone systems technology, such as improved digital transmission and better interference reduction, enhancing on-set audio recording.	Shure Audio Institute, RF Venue webinars, Sennheiser Sound Academy
Cloud-Based Workflows and Storage	Utilising cloud services for backing up recordings and sharing files increasing efficiency and security.	Coursera, AWS Training and Certification, Google Cloud Tutorials, Microsoft Azure Documentation
Virtual Reality and Augmented Reality Audio Capture	As VR and AR content grows, understanding how to capture and mix audio for immersive experiences will be essential.	Udemy, Coursera and Audio Engineering Society (AES) Conferences, Ambisonics recording.
Autonomous Robotics	Autonomous robots and physical manipulation robots can allow onset microphone movement and subject tracking to take place in locations that previously were not accessible	Robotics Academy by Carnegie Mellon University, ROS (Robot Operating System) Tutorials. Bow Robotics Free Training Sessions.
Acoustic Environment Prediction and Auralisation	Create 3D acoustic environments based on room scans prior to filming to determine room weak spots and best microphone locations.	Various readily available online courses.
Automatic metadata tagging and organisation at recording stage	AI-assisted tagging allows for faster searching and organisation of sound libraries by automatically categorising an transcription of audio files based on their characteristics.	Meta AI Voice white papers. Surrey Centre Vision Speech Signal Processing
Spatial capture technologies	Arrays of microphones able to capture multiple distinct sources at a location.	Beam forming techniques and scientific papers on the subject area.