

# ACCESSIBILITY AT SCALE

Practical Strategies for Real Inclusion

Tricia McRae - National Sales Manager  
Link Electronics



# What we'll cover

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- **Accessibility Overview**
- **Captioning + Audio Description Essentials**
- **How-Tos & Best Practices**
- **Common Pitfalls & Legacy Constraints**
- **The Future of Inclusive Media**
- **Key Takeaways**

# Accessibility Overview

## Captions serve:

- Deaf/hard of hearing users
- Viewers in noisy environments
- Learning via reading (ESL)

Captions aren't just for the **1.5 billion people** with disabling hearing loss — 80%+ of social video is watched without sound.

## Audio Description (AD) Serves:

Blind/low-vision users by narrating key visual information.

Audio description serves the **2.2 billion people** with vision impairment, enabling genuine inclusion for all.

**Together, they create truly inclusive video experiences.**

# Captioning Overview

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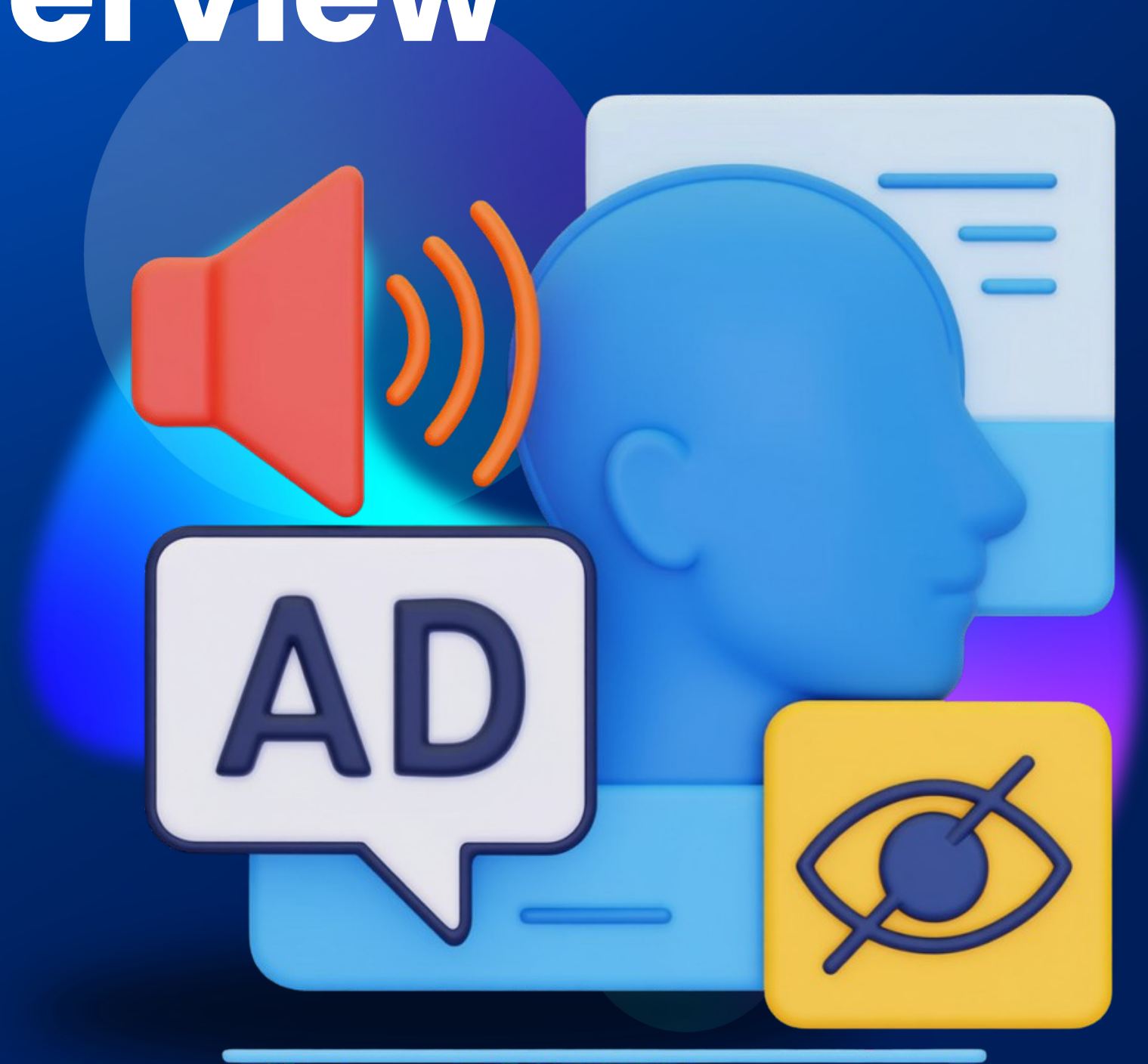
- **CC – Closed Caption (not to be confused with CCTV – Closed Circuit Television or video monitoring)**
- **Closed Caption – Encoded Captions – Captions that are embedded in the video stream, you have the ability to turn them on or off (open or close them)**
- **Open Caption – Decoded Captions – Captions that are burned into the video and cannot be turned off**
- **CEA-608 and CEA-708 – Standards set for closed captioning. CEA-608 or Line 21 caption is the standard for analog video. CEA-708 is the new standard for digital television.**

# Audio Description Overview

**Audio Description** (also called Video Description or Described Video) is a narrated track that **describes important visual elements in a video**. This includes actions, facial expressions, scene changes, on-screen text, gestures, and settings. It's then inserted into natural pauses in the dialogue.

**It's like "alt text for video" for blind and low-vision audiences.**

**Goal: Provide equivalent access to visual information so everyone can follow and enjoy the content.**



# Compliance

## FCC

- **Accurate:** Captions must match the spoken words in the dialogue and convey background noises and other sounds to the fullest extent possible.
- **Synchronous:** Captions must coincide with their corresponding spoken words and sounds to the greatest extent possible and must be displayed on the screen at a speed that can be read by viewers.
- **Complete:** Captions must run from the beginning to the end of the program to the fullest extent possible.
- **Properly placed:** Captions should not block other important visual content on the screen, overlap one another or run off the edge of the video screen.



# Compliance

## ADA

The purpose of the effective communication rules is to ensure that the person with a **vision, hearing, or speech disability can communicate with, receive information from, and convey information to, the covered entity.**

Covered entities **must provide auxiliary aids and services when needed** to communicate effectively with people who have communication disabilities.

The key to communicating effectively is to **consider the nature, length, complexity, and context** of the communication and the person's **normal method(s) of communication.**

The rules apply to communicating with **the person** who is receiving the covered entity's goods or services **as well as with that person's parent, spouse, or companion in appropriate circumstances.**





# Upcoming WCAG Requirements & Compliance

**WCAG 2.1 Success Criterion (Level AA)- Web Content Accessibility Guidelines:  
Extended regulations for web and mobile app accessibility**

Level AA (2.1): Offer either audio description or a full media alternative (e.g., transcript).

All content posted after the deadline must include audio descriptions.  
\*Archives are exempt, unless reposted after the deadline.



**ADA Title II rule (U.S. state/local governments) requires WCAG 2.1 AA compliance. Major deadlines in April 2026 (large entities) and April 2027 (smaller entities).**

# Basic Principles of High-Quality Audio Description

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## Perceivable

Description of visual and non-visual aspects

- ex: A slide with annual budget - summarize the budget numbers on the slide
- ex: A public safety evacuation map - describe the evacuation routes

## Operable

Be able to turn it on/ off

## Understandable

Use clear, concise, plain language

## Robust

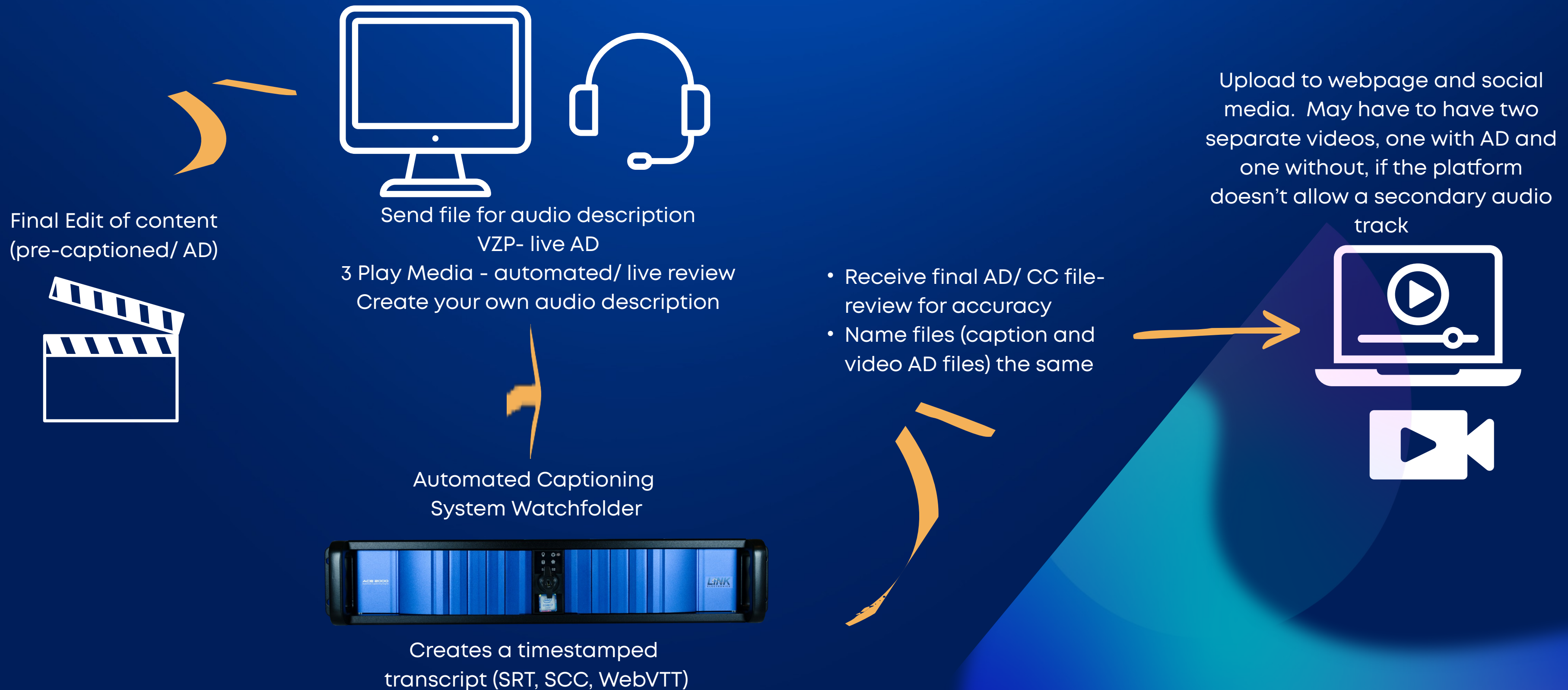
Must be accessible through all devices

# Standard Audio Description Workflow



- 01.** Review the video - flag moments when AD is needed
  - Within natural breaks in audio
  - May happen before a speaker, if there are no breaks in the audio once they start speaking.
- 02.** Write the script
  - Stay objective
  - Do not interpret meaning or emotion
  - Stay in present tense
  - Focus on key visual details - what you see, not what you assume
- 03.** Review the script
- 04.** Record the narration
- 05.** Edit and align audio/ video timing
- 06.** Upload completed video

# Sample Automated Workflow for Captioning and Audio Description



We need

we need systems that adapt to us.

## Standard Audio Description

- Takes place in natural breaks in speech.
- May describe upcoming frames if no break exists.
- Description is clear, concise, and simple language.

A dark blue screen with quick flashes of images that

## Extended Audio Description

- Video is paused to describe key scene changes.
- Description is more detailed, using more descriptive language.
- May include description of upcoming scene changes.

# Common Pitfalls

## Limitations for Captioning

- Accents and dialects
- Background noise / poor audio
- Domain-specific jargon, proper nouns, technical terms
- Homophones and context errors
- Real-time challenges - latency vs. accuracy
- Legacy broadcast challenges

## For Audio Description:

- Over-describing (too wordy) or under-describing (missing key visuals).
- Subjective language instead of objective facts.
- Poor timing that overlaps important dialogue or sound effects.
- High cost and time if not planned in advance.
- Legacy broadcast challenges apply here too (secondary audio channels/SAP, integration issues).



# The Legacy Broadcast Problem

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- ▶ Legacy standards (e.g., CEA-608/708 in North America, Teletext, DVB subtitles)
- ▶ Closed vs open captions, timing precision, character limits.
- ▶ Integration friction: Many playout systems weren't built for modern outputs.
- ▶ Regulatory requirements vs practical reality.

# AI and Accessibility – Overcoming Pitfalls

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- 01.** Human-in-the-loop review (target 95–98% accuracy).
- 02.** Custom models / fine tuning.
- 03.** Phased integration - start with files, then move to live content.
- 04.** Tools that bridge old and new (converters, middleware).

# The Future of Captioning and Audio Description

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## Key Advancements

### THE WHAT:

- **Real-time multilingual translation + localization.**
- **Automatic speaker identification (colors/names).**
- **Enhanced descriptions (sound effects, tone, music cues) → “described video”.**
- **Emotion/context awareness.**
- **Personalized captions (font size, speed, language, simplified versions).**

### THE HOW:

- **Generative AI for faster editing and quality improvement.**
- **Beyond compliance: Captions as engagement tools (searchable, interactive, educational).**
- **Advanced multi-modal AI processing of video and audio for audio descriptions**
- **Faster processing for quicker turn around times**
- **Inter-connected or multi-use platforms to combine captioning and audio description into one platform**

# The Future of Captioning and Audio Description

The screenshot shows the ACE 2100 Automatic Captioning Engine interface. On the left is a dark sidebar with the logo and navigation options: 'Tasks', 'Add New Words', and 'Administration'. The main area is titled 'Tasks (0)' and includes a '+ Create a new Task' button and an 'Export Tasks to CSV' button. Below this is a table with columns: Type, State, Title, Upload date, Process start date, File duration, Progress, and Origin. A 'Task selection' dialog is open, showing four options: 'Media Recognition', 'Media Recognition - Multi Language', 'Media Recognition - Translation', and 'Audio Description'. On the right, there are filters for 'SEARCH DATE' (05/04/2026 - 05/11/2026), 'SEARCH DATE ORDERING' (Descending), 'TASK STATE' (Done, Error, Processing, Cancel, Waiting), 'TASK TYPE', 'USER', and 'TASK TITLE'. A search bar is at the bottom right.

The screenshot shows the LINK AD AUDIO DESCRIPTION ENGINE interface. At the top left is the logo and 'AUDIO DESCRIPTION ENGINE'. At the top right is a 'Local Processing' button. The main area is divided into two columns: 'VIDEO FILE' and 'TRANSCRIPT (optional)'. The 'VIDEO FILE' section has a dashed box with a folder icon and the text 'Drop video here or click to browse' and 'MP4 recommended - MOV, WebM, AVI supported'. The 'TRANSCRIPT (optional)' section has a dashed box with a document icon and the text 'Drop transcript or click to browse' and 'TXT - SRT - VTT formats'. Below this is a text area with the placeholder 'Or paste transcript text here...'. At the bottom, there is a 'SETTINGS' section with three dropdown menus: 'AD STYLE' (Standard - Broadcast / Web), 'FRAMES TO ANALYZE' (8 frames - Balanced), and 'VISION MODEL' (Auto-detect best model). A 'Cannot reach server' error message is visible below the 'VISION MODEL' dropdown. At the very bottom is a large button labeled 'Generate Audio Description'.

# Key Takeaways

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**01.**

Start with audio quality and context for best AI results.

**02.**

Build hybrid workflows (AI + human oversight).

**03.**

Bridge legacy systems thoughtfully.

**04.**

Think beyond compliance — captions drive engagement.

**05.**

Begin small, measure, then scale.



# Thank You

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Have questions? Reach out anytime!

Tricia McRae  
National Sales Manager, Link Electronics



573-979-2986



[tmcrae@linkelectronics.com](mailto:tmcrae@linkelectronics.com)



[www.linkelectronics.com](http://www.linkelectronics.com)

