Finding Gold In Your Media Archives

Leveraging AI for Content Monetization
Speaking today.

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2020 Brings archival content into focus.

- Archival content for documentary & sports stories.
- Innovation in content repurposing
- Fodder for personalized marketing & continuous engagement.

Audiences have changed too.

- Direct relationship with content.
- Global Content Preferences.
- Fragmented & niche content genres.
What makes the monetization of existing content challenging?

- Poor searchability over valuable content. The tagging is contextual & effort-intensive.
- Lack of customized QC & compliance solutions for OTT & International distribution.
- Too much content, too little time - editorial pressure in fast-paced workflows.
- End customers struggle to take AI into production & deliver business value.
AI For Monetization

Building blocks of a Turn-key Solution

AI/ML capabilities in the cloud

AI-powered Media Asset Management

Custom-built Video Intelligence
AI/ML capabilities in the cloud

AWS
Amazon’s machine learning innovation at scale

- **Recommendations for you**
  - Your Orders
  - Pet Supplies
  - Beauty & Personal Care
  - Tools & Home Improvement

- **4,000 products per minute** sold on Amazon.com

- **1.6M packages** every day

- **Billions** of Alexa interactions each week

- First Prime Air Delivery on **Dec. 7, 2016**
Amazon Transcribe: Speech-to-Text AI service
Produce transcripts that are easy to read and review

- Punctuation, capitalization
- Speaker Labelling/Channel Identification
- Word-level time stamps
- Word-level confidence scores
- Language ID
- Custom vocabulary
- Custom Language Models (CLM)
- Alternative Transcriptions
- Vocabulary Filtering
- PCI/PII content redaction

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Amazon Transcribe: Speech-to-Text AI service
Customize transcripts to your domain and use case

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Amazon Transcribe: Speech-to-Text AI service
Enables content filtering and privacy

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Speaker Labelling/Channel Identification
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Language ID

Custom vocabulary
Custom Language Models (CLM)
Alternative Transcriptions

Vocabulary Filtering
PCI/PII content redaction
Amazon Rekognition image and video

- **OBJECT, SCENE, AND ACTIVITY**
- **NEW! CUSTOM LABELS**
- **UPDATED! CONTENT MODERATION**
- **TEX T**
- **PPE DETECTION**
- **FACE DETECTION AND ANALYSIS**
- **FACE COMPARE & SEARCH**
- **CELEBRITY RECOGNITION**
- **NEW! VIDEO SEGMENTS**
- **LIVE STREAM VIDEO**
- **PATHING**

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Opportunities for accelerating AI/ML projects

End customers struggle to get AI applications into production and deliver business value to stakeholders.
Our customers increasingly want ready-made AI/ML solutions

What is your AI/ML preference when it comes to evaluating cloud-hosted/SaaS application providers?

65% require or prefer cloud applications with AI

- Require or prefer AI/ML apps
- No strong opinion
- Avoid or won't purchase AI/ML apps

IDC attribution
Hence the importance of AWS partners to deliver ML turnkey solutions

AWS Media Intelligence Solutions
- Content Search and Discovery
- Subtitling and Localization
- Compliance and Moderation
- Content Monetization
Leverage AI in your Production Asset Management
AI isn’t just about collecting Metadata
A Sport Case Study
Samples of Editorial Needs

A News Journalist
wants to find the close ups of the key players of the game during their best actions

A Sports producer
needs the best actions of the season of a specific player

An Archivist
needs to automate the production of the game melt

A Sponsor
Needs to measure the screen-time of his logo
1. Collecting Metadata
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From Traditional Metadata

Sports Statistics and Logs
- Actions (soccer example: goals, yellow/red cards, injuries, …)
- Manual logs (sequences, named players, action ratings, …)

To AI Based Metadata

Speech-to-text
- Transcripts and captions of comments and interviews
- Speaker diarization

Face / Player recognition
- Jersey numbers
- Face recognition

Logos / Objects
- Recognize logos
- Identify certain objects

Sequences
- Slow motion sequences
- Close-ups
- Wide plans
- Stadium shots
- Interviews
1. Collecting Metadata

### From Traditional Metadata

**Sports Statistics and Logs**
- ✔️ Actions (soccer example: goals, yellow/red cards, injuries, …)
- ✔️ Manual logs (sequences, named players, action ratings, …)

### To AI Based Metadata

**Speech-to-text**
- ✔️ Transcripts and captions of comments and interviews
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**Face / Player recognition**
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**Logos / Objects**
- ✔️ Recognize logos
- ✔️ Identify certain objects

**Sequences**
- ✔️ Slo motion sequences
- ✔️ Close-ups
- ✔️ Wide plans
- ✔️ Stadium shots
- ✔️ Interviews

### AI Powered Tools

- **AI Powered Search**
- **Discovery Search**
- **Highlight production**
Use Case 2 - A News Case Study
Use Case 2: Productivity AI Powered Workflows

• Cut content at the speed of light
  Half your production time by using the transcript – no need to watch the entire video

• Caption Workflows
  Save up to 80% time spent creating captions
Discovery search

Discovery can contextually surface content amongst millions of assets in less than a second
Tangible Benefits
How Artificial Intelligence Can Help my Media Workflows?

Some Benefits:

- Reduce by 90% the need for manual indexing
- 80% time saved to create captions
- Cut content 2x faster
- Search across millions of assets in less than a second

**Increase Productivity**
Innovative Production Tools leveraging AI data

**Improve Quality**
Surface relevant Content to create more compelling Stories

**Automate Time Consuming Tasks**
Cognitive Services to help Indexing, Captioning, Editing and more
Not all metadata is relevant.
Generated metadata must justify its business utility & meaningfully describe the content.

Time-based Information
- Scene level Information.
- Camera cuts/ transition

Characters & People
- Face/Characters
- Emotions
- Story Arcs

Background & Production Elements
- Objects/ Set Locale /Camera Angles.
- Overall Ambience/ Screen graphics
Customized AI for your content

Features
- Character Identification
- Emotion Detection
- Object Detection & Tracking
- Pose Detection & Estimation
- Camera Angle Classification

Business Impact
- Enable deep search and retrieval of monetizable micro moments
- Repurpose archived content for mashups, promos, highlights & documentaries
- Enable contextual ad placement on OTT

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Making Your Content Smarter

One stop platform for media workflow operations
- Enabling Deep metadata based search
- Easy content editing, repurposing and publishing

AI/ML Inferencing for Media Applications with Contextual Metadata
- Metadata denoising & filtering
- Integration with MAM systems
- Active Learning Feedback Loops

Custom Model Training on Cloud
- Training Data tagging & generation
- Model Training
- Customization for business requirements

Train
Inference
Manage
The Art of Start
Implementing AI for Monetization
Engagement Offer

CONTENT MONETIZATION

1 Sprint POC

Solution Concept

1 Sprint

48 - Hours Workshop

Identify 2 use cases

Develop 2 Solution Concepts
Questions
THANK-YOU