IBM Watson Media

Tim Macgregor Worldwide Technical Sales

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Premium video solutions for the world's leading brands

MEDIA & ENTERTAINMENT





Solutions to Advance Your Video Business

IBM Watson Media

Watson Video Enrichment

Apply AI to analyze textual, audio, and visual data within multimedia content, and to build easily searchable metadata packages for every asset.

Watson Captioning

Leverage AI technology to automatically and rapidly generate editable closed captions that better enable FCC and ADA compliance. Multiscreen Streaming

Deliver superior OTT or TV Everywhere across devices through a compelling user experience, flexible access and catalog automation.

IBM Cloud Video

Workflow & Distribution

Simplify video logistics and scale distribution while taking advantage of monetization opportunities such as extended Nielsen ratings measurement.

Enterprise Video Platform

Comprehensive, secure streaming platform for internal and external comms. Ingest, transcode, store, play, and analyze live or on demand video.

THE COGNITIVE ERA IS HERE

and IBM is leading the movement.



Video solutions powered by Watson



Content search and discovery

Content enriched by Watson is inherently more searchable and improved content discovery leads to increased usage.

Recommendation uplift

Enriched metadata gives you deeper insights into what really motivates viewers, so you can connect them with relevant content in completely new ways.



Highlight clipping

Sports broadcasters need to create video highlights as quickly as possible. Watson automatically watches, identifies, and clips those must-see moments.



Closed captioning

Watson automates real-time, accurate, and easily editable captions, saving you time and money.



Compliance monitoring

Watson understands when to flag video assets for potential violations, helping you stay compliant while eliminating the cost of manual search and identification.

Watson Video Enrichment Workflow





CHALLENGE

Build a cognitive "discovery engine" that allows users to explore ideas inside all TED Talks videos via question and answer or keyword and metadata search in natural language.

SOLUTION

Using Tone Analyzer and Natural Language Understanding APIs, Watson analyzes concepts, keywords, sentiment, language, and taxonomy to curate a playlist of short video clips that offer various perspectives on the user's question or keyword search.

BUSINESS BENEFITS

Enhanced search and index: Making the most relevant content more accessible to users Extract the essence of meaning in a way that typical metadata cannot





CHALLENGE

Enhance experience at US Open by transcribing video content into text. Convert spoken interviews and broadcasts into written transcripts for media, fans, players, and coaches.

SOLUTION

Uses Watson Speech to Text API to automatically generate subtitles and transcripts by leveraging machine intelligence to combine information about grammar and language structure with knowledge of the composition of the audio signal. Applied against live and on demand content to allow for dynamic transcript correction

BUSINESS BENEFITS

Increased Efficiency: Reduced production turnaround time and implemented a system that is continually refining based on expanding knowledge base and learning from past errors. Cost Savings: Less labor and man power required.







Creation of engaging highlights for rapid distribution of the Masters tournament.

SOLUTION

Video enrichment watches 100+ hours of video filmed at the Masters, in real time, and create highlights of the most exciting segments. Using advanced AI techniques, Watson consumed the Masters looking for 4 factors: overall excitement level, commentator excitement, action recognition (such as players high fiving), crowd cheering

BUSINESS BENEFITS

Creation of highlight clips in near real-time that can be shared on social media and other high value outlets Enhanced search and index: Making the most relevant content more accessible to users





CHALLENGE

Engage viewers and enhance fan experience at the 2018 FIFA World Cup.

SOLUTION

IBM designed and developed the FIFA World Cup Highlight Machine, a one-of-a-kind, cognitive-based platform that lets fans create and share their own customized soccer highlight videos. Using this interactive platform, fans can browse and filter FIFA's archive of past and current matches by year, team, player, matches and type of gameplay like penalty kicks and goals.

BUSINESS BENEFITS

IBM Watson Media and FOX have turned its control room and content over to the audience to reducing the burden on product teams and putting the fan in the center of the action.



Providing closed captioning and translation services is expensive, complex, and error prone. Using the Watson Speech to Text API, **Watson Captions** automates this process, generating accurate and editable closed captions, fast.

With Watson Captions, clients save money and time and are able to efficiently meet the changing legal and compliance standards of entities such as the FCC and ADA.





CLOSED CAPTIONING

Providing closed captioning and translation services is expensive, complex, and error prone.

- New and changing closed captioning standards, as well as regional rule variations, add to the challenge
- Captions are often either way out of sync with the dialog or else only partially available in content
- Live captioning adds a greater challenge as accuracy errors increase dramatically

Leveraging the power of Watson, IBM technology can help ensure real-time, accurate closed captions. With closed caption data available, your business can now unlock the added capabilities of Watson

As the amount of content grows, automating key services and keeping costs in check is critical to success.



Confidence	Text	
43%	But that celebration seemed to Irk Djokovic.	
93%	On the very next point, showed why he's the number one player in the world.	
75%	Big backhand down the line.	
88%	Djokovic wouldn't lose another point in the tiebreak.	
79%	But Wawrinka had shown his mettle.	
79%	He was down 4-1 in the opening set to force that tiebreak.	
79%	In set number two, he started to come on strong.	
88%	Backhand brilliant. Mentally tough he would continue to put pressure on Djokovic	
93%	But the Serbian up to the task.	
93%	2015 US Open champion Novak Djokovic trying to find a rhythm, but couldn't.	
93%	And the second set would go to Stan the Man.	
96%	Frustration boiling over as Djokovic,	
62%	trying to settle himself.	
89%	It became a best of three set match and Wawrinka got off on the right foot early.	
84%	Djokovic on the move, always so steady, usually in control of his emotions,	
84%	but they seemed to be boiling over as Wawrinka continues to put pressure on.	
84%	And the forehand working mightily.	
74%	As Wawrinka takes a two set to one lead, Djokovic starts to break down.	
87%	Both his ground strokes and his body.	
87%	Apparently looking as if he's cramping, he motions to the chair that he'd like to see the trainer.	

Raising the Bar for Closed Captioning Automatic Natural Cue Segmentation: Using a smart layout algorithm, Watson Captions automatically segments caption cues at natural breaking points, resulting in captions with greater readability.

Faster Than Real Time: Maximize efficiency by generating captions at previously impossible speeds. Content ranging from 21 to 24 minutes in length can be captioned in under 7 minutes.

Self-Learning: Learning from every correction, Watson Captions is continuously evolving and improving accuracy rates.

Custom Corpora: Upload a customized glossary to extend vocabulary, provide greater context to

words, and increase confidence and accuracy.

Maintain Quality Control: All captions can be edited manually using the online caption editor

interface, optimized for maximum efficiency.





IBM.

Watson Captioning Live

Flexible, accessible Technology: Seamlessly integrates into existing station hardware, reducing 3rd party surcharges during breaking news events

Low Cost, Low Risk: Implemented with minimal up-front investment and no incremental footprint. Frees up internal resources to focus on other broadcast challenges.

Bringing Cognitive To Captions: Watson Captioning is trainable and self-learning - using AI and machine-learning technology to continuously evolve and improve over time

Hyper-local Familiarity: Rigorous training program, which acquaints the solution with market-

specific terminology across vocabulary, corpus, and acoustic data sets

Positioned for Future Expansion: Clients have access to the most innovative and intelligent AI solutions



Flexible client interface, seamless captioning support

•Web-UI for cross-team interaction, News Production, Engineering etc...

- •Fully automated solution with built-in scheduling app
- •Manual override controls for on-demand operation
- •Client training apps that automatically access News System scripts
- •Customer Portal / Dashboard for End-to-End QC
- •Highly Available [Matrixed] Cloud Instances

•24/7 support from Watson Media / Max Customer Success team





Big Data Learning for Custom Language Modeling

- •Improve accuracy by customizing a language model
- •Easy to use UI for managing training data
- •Extended vocabulary with words like names, brands, places and technical terms
- •Customize pronunciation of words
- •Upload caption files and scripts to add context to the language model

IBM Watson Captioning

Train language model to improve captioning accuracy

Training lets Watson Captioning get better in generating captions for your videos by learning about your organization lingo. There are multiple ways to train Watson, but they all come down to uploading training data, and letting Watson process them to get familiar with the context of your contents and learn special words found in your videos.

Build a vocabulary

Collect names, brands, product names, technical expressions or other words that can be found in your videos and are important to be recognized correctly. Add words one by one, or import them from a txt file (?).

WORD	SOUNDS LIKE	+ Add word 🖾 Import words from file
IEEE	I triple E	Ready for training
HHonors	hilton honors	Ready for training
NoSQL	no seek well	Ready for training



Learn more

Add corpus documents

Corpus documents are different kinds of text files written in your company lingo. These help Watson to learn about the context of your videos and improve captioning accuracy.

CAPTION FILES (?)		↑ Upload captions			
Internal_training_01-15-2018.srt	Ready for training				
Internal_training_01-13-2018.srt	Ready for training				
MANUALLY CREATED CORPORA (?)		1 Upload corpus			
Support articles.txt					
CORPORA IMPORTED VIA API					
Corpus files can also be imported programatically. Learn how to import corpora via API.					



Watson Media Q&A

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