

AI to ROI: When Playback Means Payback

How IBM Watson Media is changing video industry economics... for good.

Artificial intelligence is still relatively new for the video industry, and its power to accelerate the business is only now beginning to be understood. However, the application of cognitive solutions like IBM Watson Media's Video Enrichment beckons an analogy tracing back centuries, when seafaring adventurers pursued the ultimate reward: buried treasure.

By illuminating patterns and possibilities that were previously invisible – uncovering the video industry's "buried treasure" – Watson Video Enrichment unearths exceptional opportunities to improve profit margins, achieve quantifiable efficiencies and produce notable return-on-investment results. From video content cataloguing to sophisticated advertising-meets-content awareness, analytics unlocked by Watson allow video industry participants to achieve significant (and nearly immediate) improvements in business outcomes that translate to impressive ROI.

The outcomes are attainable in virtually any business sector where cognitive analytics are applied, but they're especially relevant to video, where a trove of monetization possibilities exist in a sea of audio and visual information that makes up the essential foundation for the business.

The Media & Entertainment industry is an ideal application for IBM Watson Media's AI capabilities because the core product of the industry is by itself an information repository. What we tend to regard as a singular video "asset" – an episodic TV drama, a live sports event, a news clip or a feature-length film – is in actuality a compilation of millions of particles of information that, rendered visible, invite enormous upside.

One common example involves the practice of content organization and presentation. Today even the most admired participants in the premium entertainment video category are relegated to fairly coarse metadata descriptors of the content they offer: genres, actors, program durations, ratings, yet the reality of human engagement is quite different. Influences like emotion, persona, tone, external experiences and social relationships converge to create unique patterns of personalized interest and appeal. Watson uses Natural Language Understanding (NLU), object recognition and other application program interfaces (APIs) to identify even the most fleeting of semantics, visual cues and surrounding context that occur within every scene. This detailed analysis makes it possible to evaluate and describe video content with unprecedented dexterity and understanding.

Leveraging cognitive abilities to unlock the makeup, context and essential humanity surrounding our metadata foundations may sound abstract until we realize its potential for bottom-line impact. As the model below indicates, even a modest reduction in average monthly subscriber churn rates – wrought by a more graceful alignment of content presentation and viewer interests – can make an enormously positive contribution to the savings and preserved revenue components of an ROI calculation.

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Less churn, more cash

	Improved Search Apps - Churn Reduction		
Savings from Reduced Churn	Number of Viewers on App	1,000,000	
	Monthly Per Viewer Value	\$10	
	Current Monthly Churn	2.5%	Annual Savings
	Reduced Monthly Churn	1.6%	\$1,080,000

What's shown above is a commonly cited case that testifies to the "big picture" theme of cognitive analytics for the video industry. But it's just one example. One of the most compelling aspects of cognitive analytics is the breadth of business improvement it makes possible.

The newsroom practice of manually tagging video segments with blunt descriptors is time-consuming, labor-intensive and error-prone, given the limited tools available to archivists. Watson Video Enrichment opens up entirely new avenues. Ingesting and then deconstructing a 20-second clip into its intricate makeup – breaking it down not only by time, place and subject but by mood, word-by-word narration and even objects that appear the frame – produces far more useful and usable detail while sharply collapsing the time required to do the job. The labor-cost savings here – another critical ingredient of the ROI model – are immediate and lasting.

Stop searching. Start profiting.

	Improved Search Efficiencies - Saving Time		
Savings from Improved Search	Number of Editors, Producers or others searching for specific content	150	
	Hours spent per month ineffectively searching	10	Annual Savings
	Average salary of such employees	\$75,000	\$649,038.46

These attributes are increasingly important in a video industry where shifting viewer allegiances and disruptive technologies have created severe competitive and economic pressures. As any business-unit manager will attest, it's rarely possible to improve user experiences (for advertisers, viewers and internal managers alike) while simultaneously elevating revenue and/or reducing expense. But that's precisely the contribution IBM Watson Media makes attainable. Some key areas of the video industry in which cognitive capabilities translate to improved business results and positive ROI are:

Transactional video-on-demand revenue improvement. Understanding what specific qualities make programs appealing to customers can translate into significant purchasing and revenue gains. If 20% of offerings generate more than 80% of revenues (not an unusual ratio), then being able to procure and present like-minded assets stands to improve revenue generation significantly. A more nuanced understanding of what compels purchases can make a big difference.

Internal archiving and metadata creation. Maintaining a full-time staff to view, evaluate and tag video assets is commonly seen as a requisite for doing business in news, sports and other high-volume content environments. Automating this process reduces tagging errors and frees resources while directly impacting the bottom line via reduced labor costs.

Internal search and content identification. Even when metadata has been applied, it's difficult, sometimes impossible, to quickly search through large volumes of content. As a result, assets that may have hidden value – imagine a highlight reel involving baseball players who shine during a particular pitch count or a compilation of a candidate's stump speeches featuring a particular phrase – remain on the proverbial cutting-room floor. Watson Video Enrichment dramatically widens search parameters and efficiencies so that content owners can more readily maximize the value of existing assets.

Improved external search. Even in an age of expansive choice, consumers often can't find programs they'd like to watch, when (and where) they'd like to watch them. One-third of consumers responding to September 2015 survey conducted for Rovi said they are often unable to find something to watch on television. An advanced, intuitive means of surfacing and suggesting content can elevate satisfaction, build loyalty, increase engagement and reduce churn among consumers. These are well-recognized ingredients for improved business performance across every significant video industry category, from advertising-supported broadcasts to subscription video-on-demand platforms. As an example, the table below illustrates how improving engagement translates to revenue gains for a video-centric digital application.

Engagement for growth's sake

	Improved Experience in Apps - Improved Experience		
Earnings from Improved Experience	Number of Viewers on App	1,000,000	
	Monthly Per Viewer Value	\$10	
	Monthly Engagement with App in Hours	10	Annual Increase in Value
	Increase Engagement	5.1%	\$510,000

IBM Watson Media deployments also are poised to produce positive ROI for advertising-supported video businesses thanks to usage elevation rendered by improved search and presentation techniques. Assuming only a conservative 10% lift in viewership for a video platform that generates 80 million annual views at a cost-per-thousand (CPM) impressions rate of \$25, it's possible to yield meaningful improvements in revenue that translate to impressive ROI – specifically a 3-year return of 86%. With a 20% lift in viewing, the payback on investment would shrink to less than eight months and the return on investment would rise to 273%.

Advertising elevation, powered by cognition

<i>Watson Media ROI</i>		Conservative Estimate	
Anticipated Video Views Lift	10%	20%	
Incremental Video Views / Month	8,000,000	16,000,000	
Incremental Revenue / Month	\$200,000	\$400,000	
Library / NRE Payback Period (months)	17.05	7.98	
One Year Net Return	\$(888,000)	\$1,512,000	
One Year ROI	-27%	46%	
Three Year Net Return	\$3,336,000	\$10,536,000	
Three Year ROI	86%	273%	

These examples are clearly compelling to any video business in search of ways to leverage artificial intelligence. What's more? These examples underscore the potential for cognitive systems across a range of video business models. The common bond here is the ability to bring to the surface valuable insights, ideas and relationships swirling about within an existing mix of content, viewers, interactions and metadata.

The good news for video industry participants is that they already possess the underlying treasure. The winners will be those who are willing to invest in its discovery.

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