



WHITE PAPER

# Unlocking the Hidden Value of Business Video

Five Strategies for Better Leveraging the  
Data Goldmine Sitting in Your Video Archives

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## Anticipating a Corporate Video Avalanche

Are enterprises ready for the inevitable video blizzard? More businesses today are funneling more video into digital archives than ever before. As the proportion of organizations putting one-to-many online video to work continues to rise, the ranks of enterprises that are building substantial libraries of video content are growing in step. Almost one in five (19%) of organizations represented in a Fourth Quarter 2016 survey of 1,801 executives conducted by Wainhouse Research report that they add at least 25 hours of video to their corporate libraries each month. That's up from 12% of organizations reporting a similar rate of video capture in a comparable study conducted by WR in 2013.

*Nearly One-Fifth of Executives Surveyed Say Their Organizations Add at Least 25 Hours of Video Content to their Corporate Libraries Each Month*

All market indicators suggest that the mountains of digital video collected in the enterprise will do nothing but grow. Implementation of hosted video platform solutions make it easier – and more affordable – for companies to deploy technologies enabling one-to-many video communications. Those using online video only for live events certainly demonstrate a propensity for recording those sessions for later access. In the 2016 WR survey, more than seven in 10 respondents at organizations that are capturing online video for archival use report that most content recorded for on-demand use originated as a live event. And as the costs for data storage continue to tumble, organizations have little financial incentive to erase any of the video that finds its way into the archives.

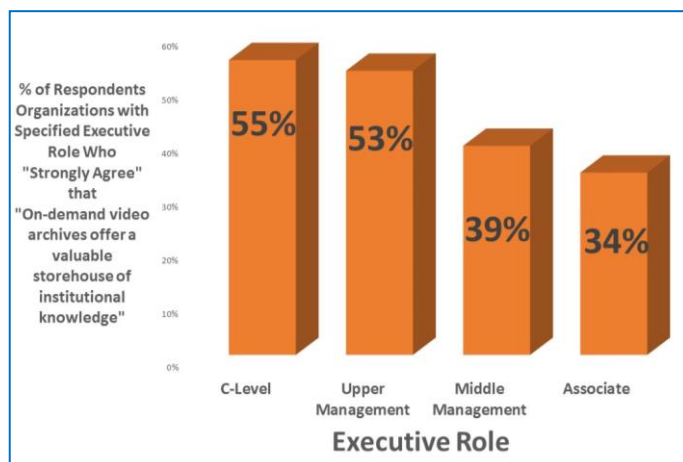


Figure 1: Agree/Disagree: On-demand video offers a storehouse of institutional knowledge – Segmented by Executive Role

And why would executives want to trim their video libraries anyway? Increasingly, video archives are being recognized as an asset that creates organizational value. Forty-three percent of executives participating in the 2016 WR Survey say they “strongly agree” with the statement that “on-demand archives offer a valuable storehouse of institutional knowledge.” And – as illustrated in Figure 1 – executive regard for the value of these content libraries is particularly high among those working at the highest levels of the corporate hierarchy. More than half

(55%) of chief executive officers participating in the WR survey say they “strongly agree” that video archives are a valuable storehouse of institutional knowledge. Likewise, 53% of executives in upper management (carrying titles such as executive VPs and senior VPs) respond similarly. Among those identifying themselves as “associate” level workers, only 34% say they strongly agree on the value of archives in preserving institutional knowledge.

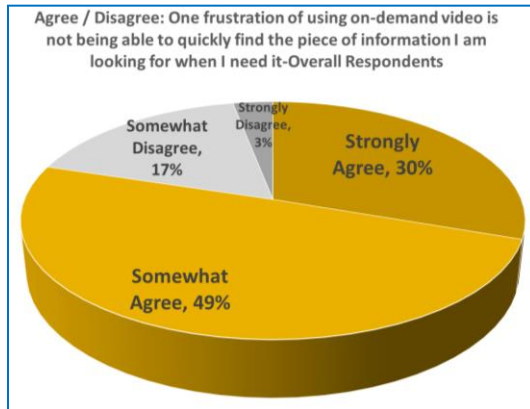


Figure 2: Frustration in searching video for relevant content – Overall Respondents

Executives are beginning to realize, however, that hidden chestnuts of corporate wisdom are not worth much if workers are not able to watch them. Much as a library becomes useless when its books are scattered on the floor, a digital video archive without adequate tools to help workers find the right piece of content at the right time does not contribute much business value.

Frustration is widespread when it comes to enterprise information retrieval of relevant video. As illustrated in Figure 2, 79% of all respondents to WR's 2016 survey who work at companies with video content archives say that

they agree with the statement: "One frustration of using on-demand video is not being able to quickly find the piece of information I am looking for when I need it." Exactly three in 10 respondents say they "strongly agree" with the statement, and another 49% report that they "somewhat agree."

When contemplating the future of online video in the enterprise, however, the most telling revelation comes when we segment responses for this question by the extent to which an individual watches on-demand videos. The survey results suggest that corporate frustration with information retrieval grows as the size of video archives expand. At organizations with cumulative video archives of 100 or more hours of video content, 40% of survey respondents "strongly agree" that they are unable to find the information they need from on-demand video when it is needed. At organizations with archives of 10 hours of content or less, only 22% "strongly agree" with the statement highlighting the difficulties of video information retrieval. (Figure 3)

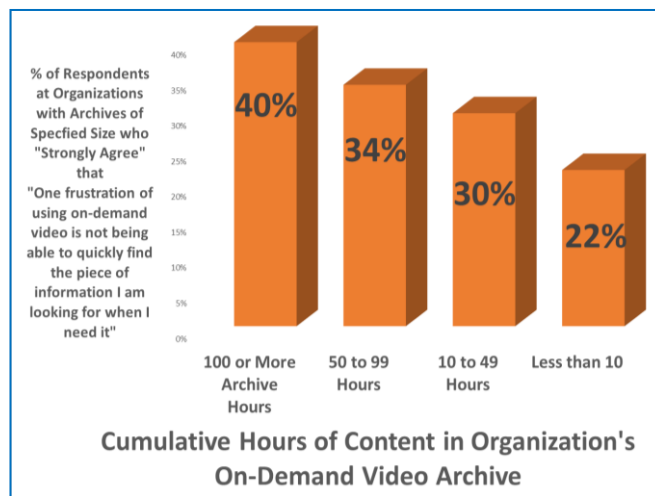


Figure 3: Frustration in searching video for relevant content – By Organization's Video Archive Size

The key concept here is that executives begin to see the value in having solid video information retrieval tools only when they find themselves sifting through more and more on-demand video files. As more organizations embrace the capture of on-demand video at scale, their workers increasingly are at risk of becoming irritated with video solutions ostensibly designed to enhance corporate communications. For information technology executives aspiring to encourage broader adoption of online video within their respective organizations, implementing a cohesive strategy for managing archives of video content is essential.

## Organizations Recognizing the Growing Importance of Video Retrieval

The frustrations felt by end users in dealing with large video libraries are not falling on deaf ears. Overall, executives seem to understand that the ability to find the right piece of video at the right time is a big deal. Indeed, it is a prime consideration that influences corporate purchase decisions of streaming technology solutions.

In its end user survey, WR presented respondents a list of nine different technology issues and features and asked them to identify the two that play the biggest role in shaping the decision on whether to buy a specific streaming technology platform. As is customarily the case in enterprise deployments, “security” tops the list of purchase considerations: 35% of all survey participants cite “secure content from those not authorized to view” as a “top two” consideration in the streaming purchase decision process (Figure 4.)

What may be surprising to some is the issue that ranks right behind “security” in these survey results. In a list that included references to streaming’s integration with social media, the ability to customize content portals and the tools needed to track viewership patterns, none are mentioned more frequently as a leading streaming purchase influencer than is the issue of video information retrieval. Among all survey respondents, 30% cite “search content to find relevant videos” as a “top two” consideration influencing the streaming purchase decision process.

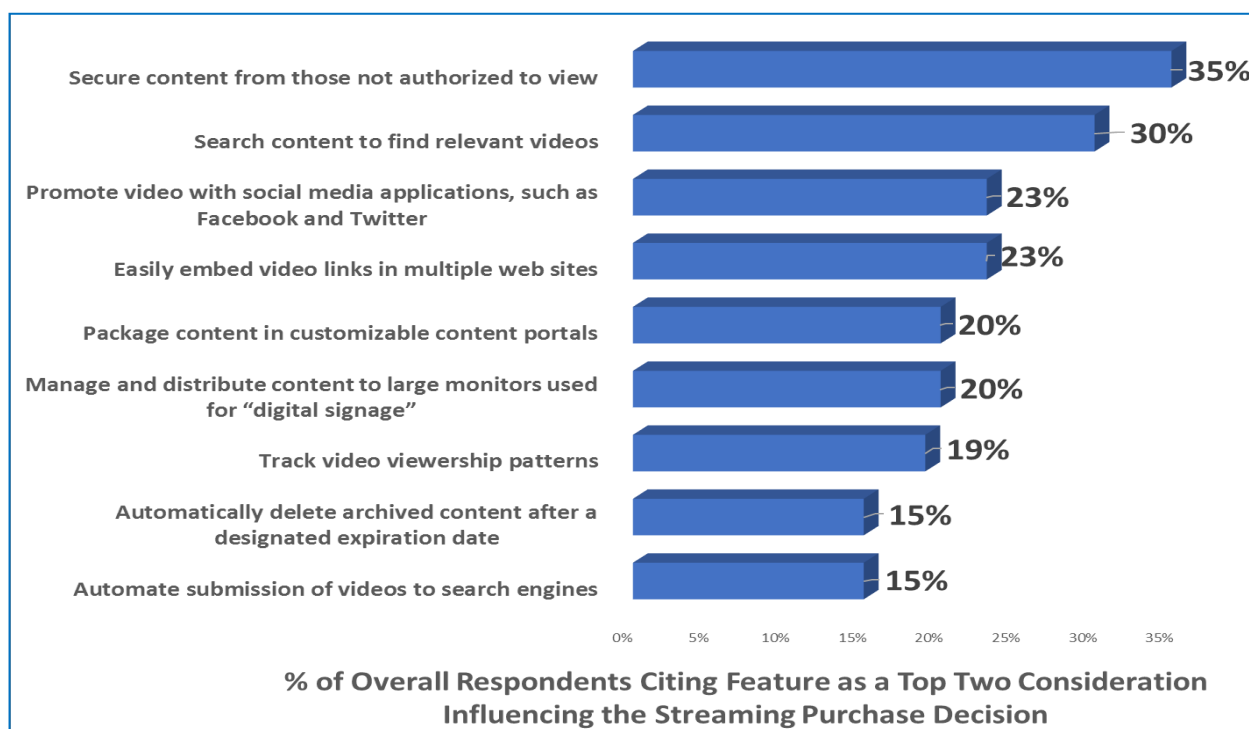


Figure 4: Factors Influencing the Enterprise Streaming Technology Purchase Decision - Overall Respondents

The results above from the overall respondent group understates the relative importance of “the ability to find” videos among organizations that are active content producers. Figure 5 compares citations of the “security” and “search” categories between those companies active in capturing content for on-demand archives and those not recording any content at all. Among respondents from organizations that archive at least 25 hours of video content monthly, citations for “search content to find relevant

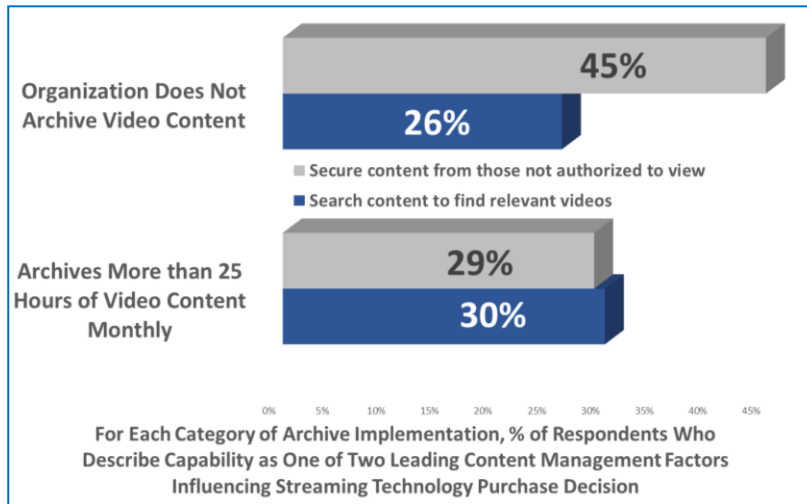


Figure 5: Factors Influencing the Enterprise Streaming Technology Purchase Decision – Segmented by Archive Production Levels

videos” top those of “secure content from those not authorized to view.” While the margin of victory for video retrieval is slim – a 1% delta – it still flips the script from responses tallied from other segments of the survey audience that more frequently cite the importance of security issues. Among organizations that do not archive video content, for instance, we see that familiar pattern return: 45% cite “secure content from

those not authorized to view” as a “top two” purchase consideration. Among those without archives the topic of “search content to find relevant videos” is a relative afterthought, cited by only 26% of these respondents as a “top two consideration.”

The lessons of the corporate pioneers of on-demand video should be viewed as canaries in the digital coal mine. While only a fraction of organizations today are building massive video archives, their ranks are growing steadily. And their experiences in putting on-demand video to work can provide us clues on the issues that are likely to grow in importance as online video becomes even more widely deployed in the workplace.

## Strategies for Generating Value from Video Archives

Facing the almost-certain prospect of burgeoning video archives in the years ahead, organizations certainly can choose to stick their head in the sand and ignore this new wave of video adoption. Alternatively, they can recognize these video libraries as a corporate asset with the potential to help an enterprise develop competitive advantage.

On-demand video can be deployed in a variety of business scenarios. It can be used to standardize the employee onboarding process, allow workers to watch company town-hall meetings at a time convenient to them, help human resources departments communicate information on employee

benefit programs and allow IT administrators to share answers to frequently asked questions in an engaging manner. From partner training to disseminating product information, on-demand video also supports a range of outbound communications applications, as well.

No single technique can ensure that the right video bubbles to the surface when it is needed. Indeed, the task of managing video content archives still is considered by some to be more art than science. But technologies being embedded within today's enterprise streaming platforms are providing greater options for taming corporate video libraries in a way that generates true business benefits. In the pages that follow, WR presents five approaches organizations can use to squeeze more value from video archives. The list is organized in ascending order – starting with the most basic content management techniques and building to more advanced video retrieval strategies.

#### ***Five Strategies for Better Leveraging On-Demand Video***

- **Metatagging**
- **Automated Metatags**
- **Closed Captioning**
- **Speech-to-Text Conversion**
- **Machine Learning**

#### **Strategy 1: Metatagging**

Metatagging is the most straightforward, basic approach available today for managing content in video archives. As the name implies, the practice involves attaching specific keywords (or “tags”) to a file header that describes the themes addressed in a specified video file. Metatagging systems are virtually ubiquitous in today's streaming world but deliver only marginal business value. Keywords typically are associated with an entire video file and do not direct viewers to relevant passages related to the tagged theme. In many ways, the effectiveness of metatagging relies heavily on the discipline of the individual managing the archive. Because administrators must manually enter metatag information for each video file created, it is difficult to maintain consistency in the metatags that drive productive search results for end users. When it comes to metatagging, archive managers quickly learn that the “garbage in, garbage out” metaphor applies in spades.

#### **Strategy 2: Automated Metatags**

Automated metatags help address some of the consistency issues related to traditional metatagging by employing technologies that can generate metatags directly from the content itself. For instance, streaming platforms can employ “optical character recognition” to read graphics presented in both the video and slides of an online webinar presentation. The recognition solutions also can provide links that send viewers directly to the point in the video where the specified keyword is referenced. Likewise, streaming solutions can mark the point in a video where a presenter changed a slide and use that information to create a new “chapter” in the video, allowing viewers to jump directly to different topic categories – as defined by the titles used in each of the slides recognized by the automated system.



### Strategy 3: Closed Captioning

Organizations can choose to pay stenographers to generate real-time transcriptions of live online presentations. When the content is captured for on-demand replay, the text of these transcriptions can be linked directly to the specific passages where they appear in the video. The ability to support closed captioning is particularly appealing to executives at organizations that frequently employ live online video. As illustrated in Figure 6, 21% of executives working at organizations producing 100 or more live online video events per year cite “enable close captioning” as one of the “top two” features influencing the streaming technology purchase decision. In contrast, among firms producing less than 10 live online

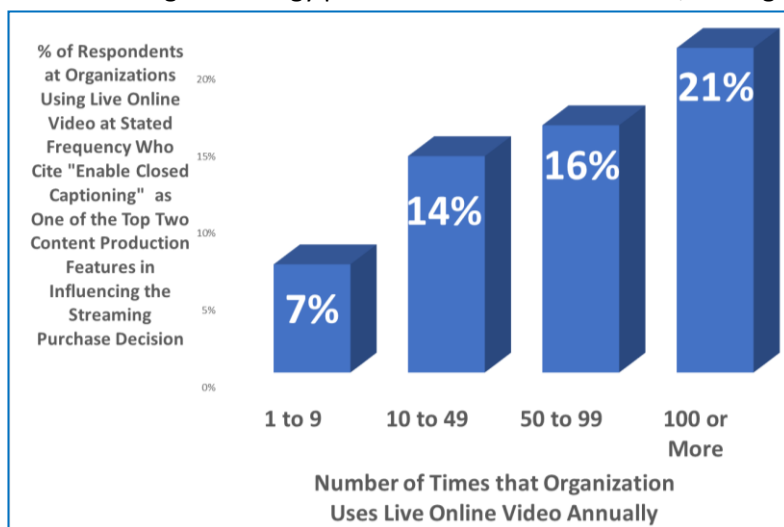


Figure 6: Importance of Closed Captioning in Streaming Purchase Decision – By Frequency of Video Use

video events annually, only 7% cite “enable close captioning” as a feature influencing the streaming purchase decision.

Once implemented, closed captioning sets the stage for a variety of ways to enhance the value of on-demand content. A written transcript, for instance, can be translated into other languages, making it possible for organizations to create video with foreign language subtitles than can be relevant for stakeholders based in

other nations. The transcript also serves as an “uber-metatag” that enables users to conduct searches that take them to specific passages in a video where a specified keyword is referenced.

The downside of traditional closed captioning is that it is not scalable. While large meetings with thousands of attendees are viable targets for closed captioning, the option is not cost effective for use in content designed for smaller audiences. Simply put, not every piece of content produced in the business setting is a suitable candidate for closed caption transcription. It would be too time-consuming and expensive to produce text-based read-outs of all videos produced by an organization active in producing video-enriched content. The limited reach of closed captioning hinders the effectiveness of search based on closed captioned text. With closed captioning available on a hit-or-miss basis, content that does not warrant closed captioning will not be fairly represented in search results.

### Strategy 4: Speech-to-Text Conversion

Speech-to-text conversion is an approach that combines the attributes of automated metatagging and closed captioning, aspiring to automatically collect data that can be used to catalog and tag specific passages of video. Streaming technology vendors have made great strides in recent years, integrating



increasingly sophisticated and accurate speech-to-text conversion solutions that are typically licensed from developers focused specifically on developing speech-to-text applications. Increased adoption of hosted streaming solutions, in particular, has made it possible for vendors to deploy more sophisticated, large-scale speech-to-text processing options that can reside in the cloud.

While speech-to-text has emerged as a more viable option than ever before, it cannot yet be considered a fail-safe solution for reliable content management. Accuracy rates for some automated speech-to-text transcriptions can reach 90% when implemented in a favorable environment with minimal background noise. But even that level of accuracy is not enough to create text logs that guarantee reliable and complete searches of relevant video content. Mistakes in the transcription simply create too many holes that result in search queries that produce incomplete results. Today's speech-to-text will enable searchers to find much of the video content related to their search, but confidence in finding all relevant videos in such a search remains low. WR expects vendors to make steady progress in the quality of speech-to-text results over the next five years.

### **Strategy 5: Machine Learning**

Machine learning is the next frontier for generating value from corporate video archives. In broad terms, machine learning refers to the capability of computers to ingest text, graphics and video inputs and use the content as raw material for developing knowledge-based reference systems from that information. While machine learning remains in its early days, business videos that capture an organization's top leaders in action offer a potential goldmine of information and insight. Machine learning algorithms can analyze the footage to classify context, sentiment, topics discussed, the identities of those present, and the points that they made. The algorithms can identify patterns and trends that otherwise wouldn't be apparent. In theory, a company that regularly captures its best and brightest executives on video ultimately will make executive insights more easily searchable and valuable for any employee that needs to better understand the topics discussed. Organizations that are aggressive in capturing video content today are building a potential storehouse of information that will put them ahead in the race to effectively deploy machine learning in the years to come.

The true benefit of these solutions results from their ability to rummage through unorganized data and discern patterns that can be inferred from large data sets. Machine learning systems can take information pulled from video and then pair it with insights culled from other corporate data, creating information exponentially more valuable than that resulting from the analysis of data from traditional computing environments alone. Few data types can match the contributions of video in enriching results generated from this automated approach to data analysis.

While the potential impact on business operations holds the promise of changing how entire industries operate in the decades to come, the rise of machine learning today already is setting the stage for organizations to recognize real, tangible benefits from implementing video. Simply put, these systems help companies use less manpower to find more relevant content. Applications already viable include

basic capabilities that are already being implemented, such as face recognition and intelligent chaptering of archived content. It could even be used to edit assets, improving effectiveness of those assets while increasing focus on the value inherent in that content.

The true power of this technology, however, comes from its room to improve and its ability to use archived content to accelerate the machine's learning process. The machine lessons can range from learning how the name of a company or individual is pronounced, to teaching more complex patterns and routines that streamline content management. Simply put, as content archives grow, good content is not lost to the ages. Rather, organizations leverage that video to make corporate information easier to discover, enhancing its value in day-to-day business use.

### **Key Takeaway: Take a New Look at Video's Value**

Executives must come to understand that online video will evolve into a competitive weapon that will impact both how they share their messages and how the information embedded in those messages will become part of their organization's intellectual DNA. Unlocking the hidden value of video depends on executives transforming the way they perceive video. While video remains a medium that fosters engaging forms of communication, it also must be recognized as a type of data that can – and should – be manipulated in the same way that companies now pull information from their libraries of text documents, spreadsheets and images. It may take years for this vision to be fully realized. But companies that do not step up and begin to understand the solutions that are used to pull value from video today will find themselves behind the curve when the age of machine learning comes to fruition.

## About the Author / About WR / About Watson Media

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