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## Introduction

The presence of online video has grown to the point where many of us consume it multiple times a day, sometimes without even thinking about it. It has never been easier to shoot, view, and share. Advances in wireless network reliability and file compression technology coupled with a growing proliferation of affordable devices with video cameras means that video is populating websites, apps, and screens everywhere, outranking the more traditional forms of web content, text and static images, in popularity.

#### **How Organizations See Their Captioning Needs Changing Next Year**

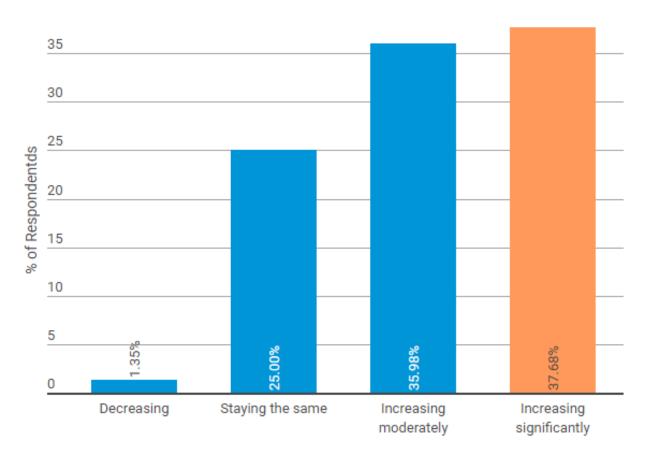


Figure 1: How organizations foresee their captioning needs changing next year

In fact, video has become so readily available and integral to our lives that when a video doesn't have closed captions, viewers often feel let down or inconvenienced, especially if they are Deaf, hard of hearing, or are in a noise sensitive environment. Captions have also become a boon for businesses by increasing view time on videos posted to social media and contributing significantly to search engine optimization (SEO). Meanwhile, more and more academic studies are proving that captions help students focus and retain information while watching educational video content.



Given all these trends, the demand for captioning is on the rise. One of the salient outcomes of this survey is that 74% of organizations foresee their captioning needs increasing moderately or significantly in the coming year (see Figure 1). The survey produced many other interesting results, including:

- 36% of organizations take a proactive stance to captioning, saying they caption all their video content.
- 79% of organizations have a budget allocated specifically for captioning.
- 61% of organizations already have or are in the process of developing a centralized captioning process.
- 55% of organizations have integrated their captioning process with their video platform.
- 67% of respondents are at least pretty confident they understand the applicable captioning laws.
- 23% of organizations already have a clear policy for captioning compliance, and 42% say it is being developed or on the roadmap.

These results demonstrate that people are discovering the wide-ranging benefits of captioning, but even more importantly, accessibility laws are becoming more pervasive. Since the landmark ruling of the National Association of the Deaf (NAD) vs. Netflix in 2012, the courts have consistently decided that public-facing online videos must be captioned in order for organizations to comply with the Americans with Disabilities Act (ADA), the Rehabilitation Act, and the 21st Century Communications and Video Accessibility Act (CVAA). The Department of Justice (DOJ) submitted a letter of interest supporting the NAD in their suit against Harvard University and MIT over the lack of accurate closed captions on their massive online open courseware (MOOC) website. In addition, the Office for Civil Rights (OCR) and DOJ have submitted dozens of letters of interest focused on web accessibility in higher education in the last few years. It appears that the future of online video is one that both requires and embraces video captioning.

This report is meant to paint a picture of the current state of video captioning, giving us a starting point to measure trends in captioning use across different industries. The data comes from a survey taken by 1,419 people between December 2016 and February 2017. The participants came from numerous industries, including higher education, corporate, media & entertainment, government, religious organizations, and nonprofit organizations. Most of the participants were from the United States. Others were from Canada, the United Kingdom, Ireland, Australia, and New Zealand.



# Video Usage

### Amount of Video Published Annually

Because organizational trends in captioning are largely dependent on organizational trends in video, we devoted the first section to that topic. Although many factors determine the quantity of video published by an organization, the graph below shows the aggregated data across all types of organizations. Almost 36% of organizations produce between 11 and 100 hours of video annually.

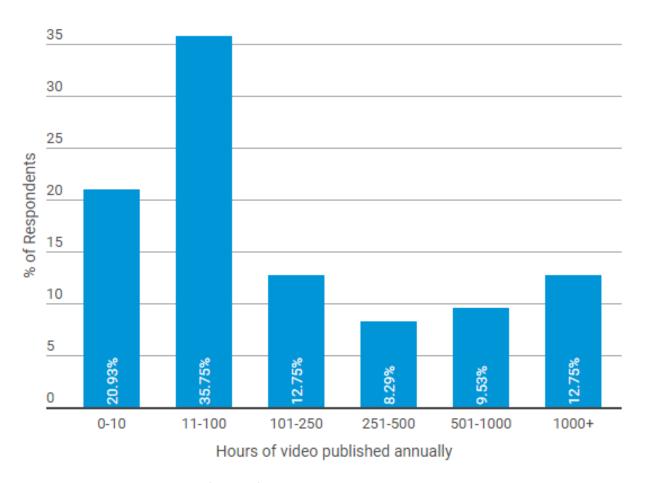


Figure 2: Number of hours of video content published by organizations annually

### Amount of Video Published [Breakdown by Industry]

If we look at the data by industry, 32% of companies in the Media & Entertainment industry are publishing over 1000 hours annually - which makes sense, since they are usually producing TV shows and films. About 23% of religious broadcasters are publishing over 1000 hours annually, as well. Comparatively, 77% of K-12 schools publish less than 100 hours of video per year.

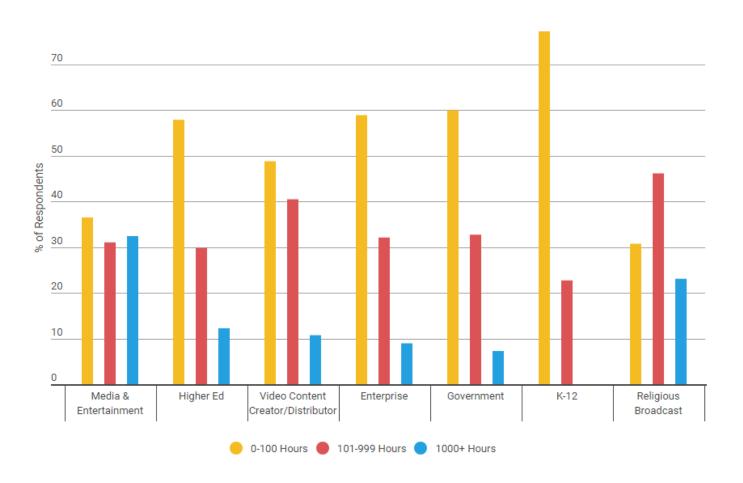


Figure 3: Comparison of the amount of video published annually by different industries

#### Recorded Videos Vs. Live Video Events

While a few organizations deal exclusively with recording live events, most organizations are producing recorded video or both recorded and live events.

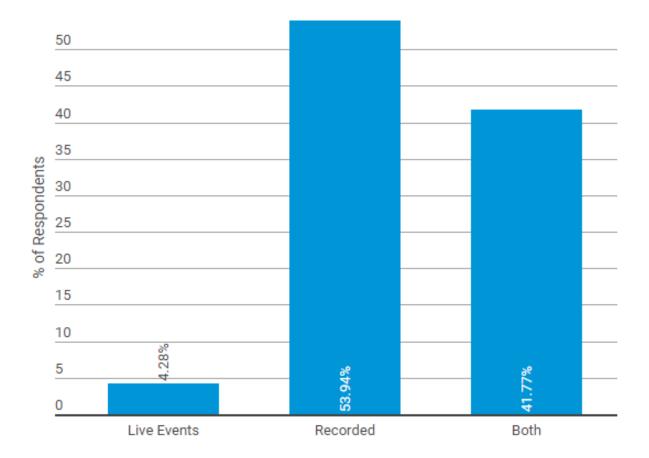


Figure 4: Use of recorded videos versus live videos

雪 93%

93% of organizations that record live events publish them online afterwards for on-demand viewing CC 62%

61.56% of organizations caption these on-demand recordings

# Approach to Captioning

## **Captioning Drivers**

The most frequent response when asked about their organization's main reason for captioning was "legal compliance," followed by "to enhance learning for all viewers," and "accommodation requests."

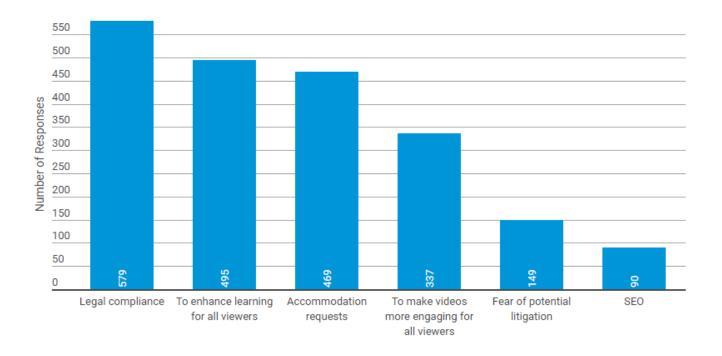


Figure 5: Comparison of drivers that motivate organizations to caption their videos

## **Captioning Barriers**

The two main barriers to captioning are, by far, "Cost/Budget" and "Resource time." Technical challenges associated with captioning video seem to only pose a challenge to a relatively small portion of respondents. Even less responded that they were "Not sure we need to."

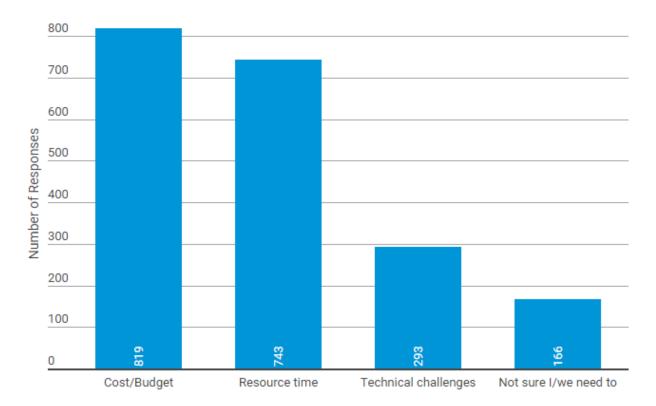


Figure 6: Captioning barriers

### **Prioritization of Captioning**

Almost 36% of survey participants take a proactive stance to captioning, saying they caption all their video content, and another 17% caption as much as their budgets allow. On the other hand, less than 30% take the reactive approach and caption by request only, and an additional 10% caption only as much as the law requires.

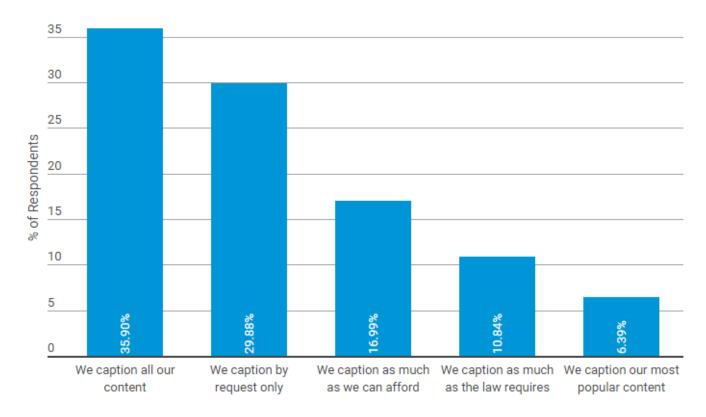


Figure 7: How organizations prioritize videos for captioning

# Implementation of Captioning

### **Captioning Budget**

79% of organizations have a budget allocated specifically for captioning. Nearly half (48%), are under \$10,000 per year. 21% of organizations have no budget specific to captioning. Our survey data tells us that 90% of organizations without a captioning budget rely on in-house captioning in some capacity. Also, they may be pulling funds from a more general accessibility budget.

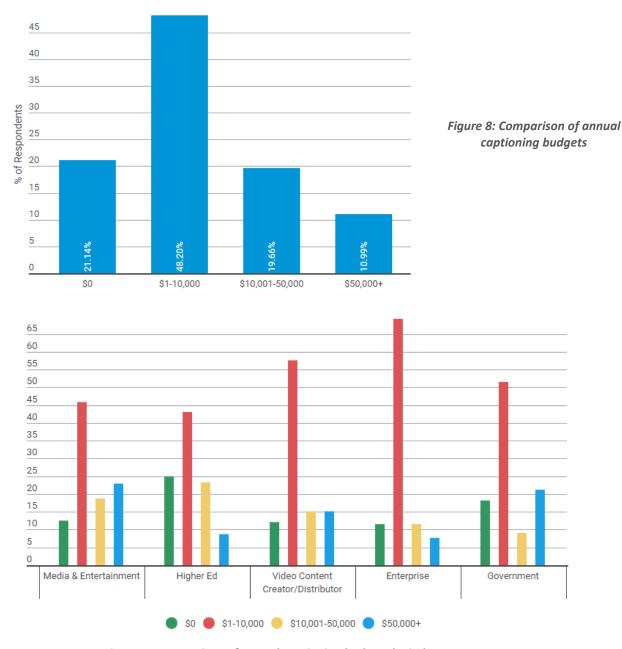


Figure 9: Comparison of annual captioning budgets by industry



### Centralization of Captioning

Over 61% of organizations have a centralized process for captioning or are in the process of developing one now. Another 18% are planning to establish one.

Captioning centralization is an especially popular topic in the higher education space. Schools are under a lot of pressure to caption their video content because of increased legal action and student accommodation requests. Centralizing captioning can be a more efficient, cost-effective, and thorough solution to complying with captioning requirements.

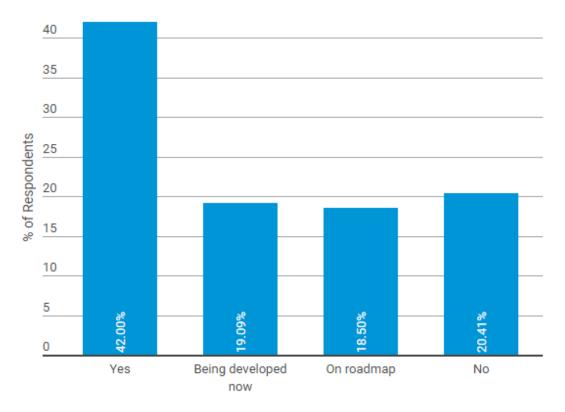


Figure 10: Organizations who have or plan to have a centralized captioning process

## Departments Responsible for Captioning

When asked which department is responsible for captioning, many organizations gave multiple responses. The top three departments involved with captioning are Instructional Technology/Design, Disability Services or Compliance Office, and Video Production.

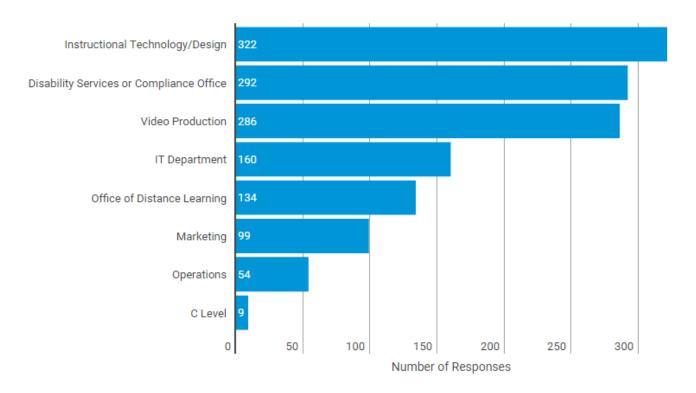


Figure 11: Departments responsible for captioning

### Third Party Vendor Vs. In-house Captioning

Almost 80% of respondents meet all or some of their captioning needs through a third-party vendor. The remaining 20% use in-house resources only.

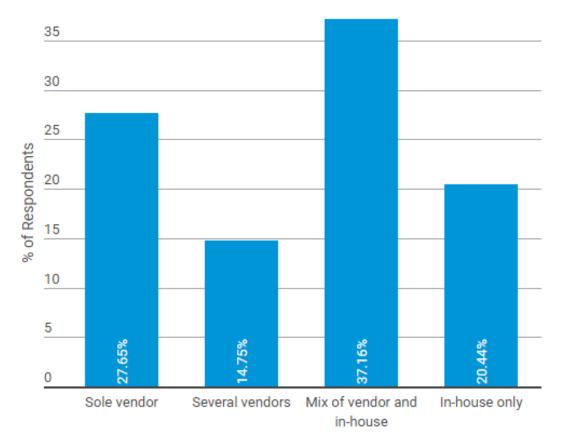


Figure 12: Comparison of organizations who use a captioning vendor versus those who do it in-house

#### **Captioning Turnaround**

Turnaround time, or the time it takes from ordering captions for a recorded video to receiving them, depends largely on the captioning process. About 20% of respondents receive captions in one day or less. About 55% of respondents get their captions back within 2 to 4 days and roughly 25% wait 5 days or more.

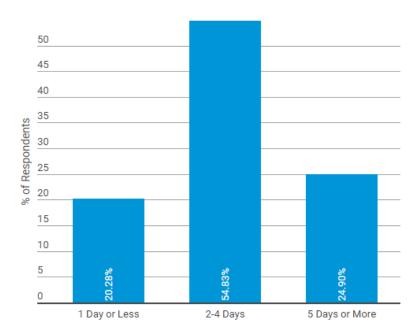
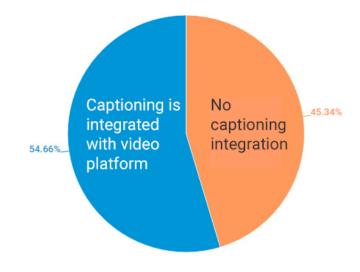


Figure 13: Typical turnaround to obtain captions after a video is submitted to the captioning provider

#### Integration with Video Platforms

Captioning vendors like 3Play Media offer workflow integrations with a variety of video platforms such as Vimeo, YouTube, Brightcove, Kaltura, and Wistia. The majority of respondents (about 55%) use integrations through third-party vendors so that they can simply order video captioning from within their video player platform with the push of a button.

Figure 14: Organizations who have integrated captioning with their video platform or lecture capture system



## **Captioning Personnel**

84% of organizations have 1 to 5 people involved with captioning. 8% have more than 10 people involved with captioning. These numbers make sense for organizations who use third party captioning vendors, but they seem low for organizations who do captioning in-house.

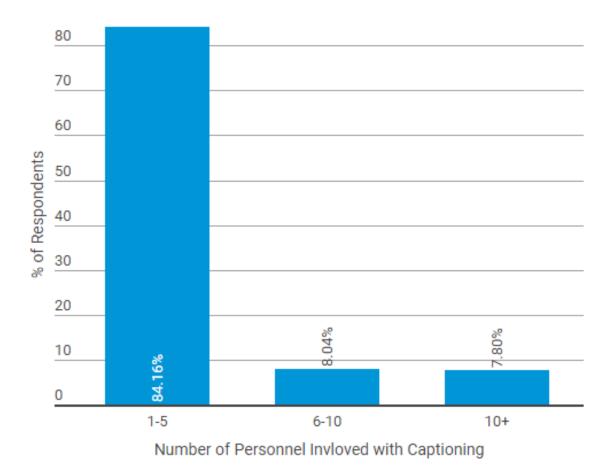


Figure 15: Number of personnel involved with captioning

## **Quality Review of Captions**

After receiving captions from a vendor, over 83% of respondents review their captions to make sure they are accurate. Less than 11% review only select videos while about 5% say they never review the captions.

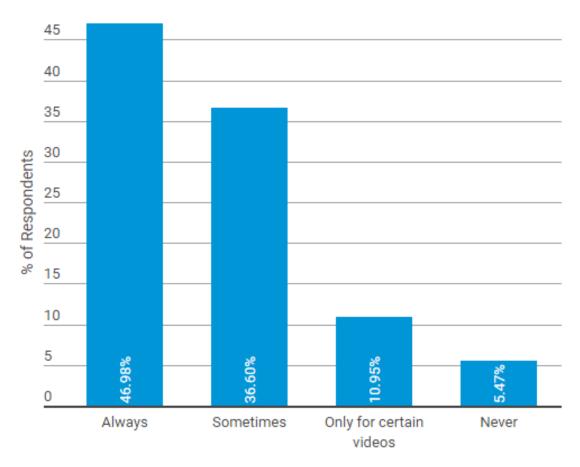


Figure 16: How often organizations conduct a quality review of captions before publishing a video

#### Captioning of Live Vs. Recorded Events

Captioning recorded video was much more popular among our respondents than captioning live events, such as live-streamed seminars or program broadcasts. Over 74% of organizations caption video of recorded events or broadcasts while only about 33% caption live events.

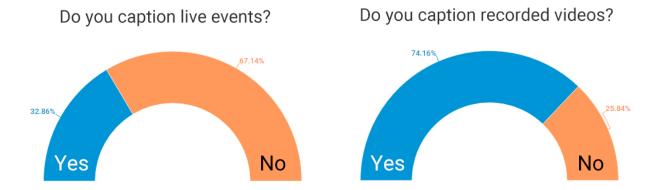


Figure 17: Comparison of captioning of live events vs. recorded videos

#### **Captioning After Live Streamed Events**

Some organizations "clean up" their captions for compliance and accuracy purposes after a live event. However, the figure below shows that it is more common for organizations to get their video recordings re-captioned entirely. One of the reasons for this is that the process of conforming live captions is fraught with technical difficulties, such as re-aligning the captions with the spoken audio.

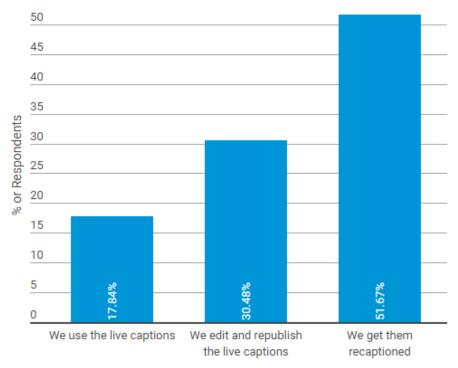


Figure 18: How captions are added to recordings after live streamed events



# **Caption Accuracy and Quality**

## Self-Rated Caption Quality

Most people seem fairly happy with the quality of their organization's video captions. Roughly 75% of our respondents rated their captions 8 or above.

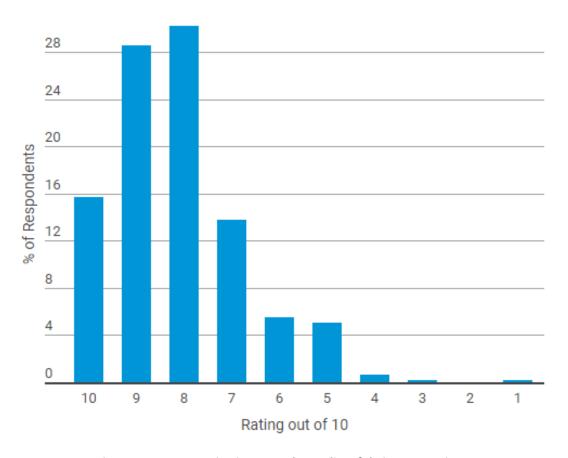


Figure 19: How organizations rate the quality of their own captions

## Feedback on Caption Quality

89% of organizations say the feedback they received about their captions has been positive (captions are high quality or generally high quality).

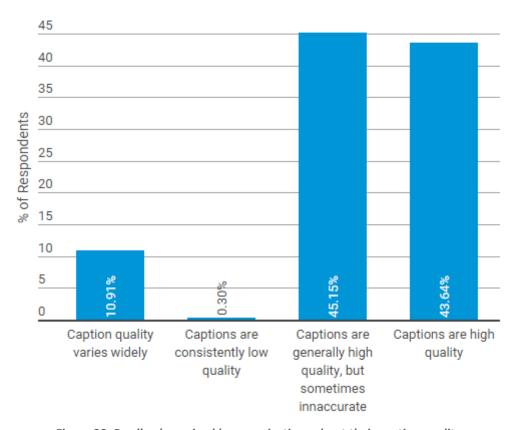


Figure 20: Feedback received by organizations about their caption quality

#### **Use of Automatic Captions**

Over 22% of organizations use automatic captions for "all" or "some" of their captioning without cleaning it up. This was surprising to us because it is generally accepted that computer-generated captions are not accurate enough to provide an equivalent experience. These organizations are not making their videos accessible to Deaf and hard of hearing viewers and are potentially at risk for a lawsuit. Harvard and MIT were sued in 2014 for providing "inaccurate" captions on their videos, many of which used YouTube automatic captions.

Automatic captions are made using automated speech recognition (ASR) technology that results in 50-80% accuracy, depending on factors like audio quality, speed of speech, and speaker accent. This is nowhere close to the accuracy needed to provide an equivalent experience. Most industry experts agree that 99% is the minimum level of accuracy required to achieve the legal standard of equal access.

About 27% of respondents start with automatic captions and then edit them for accuracy, and over 50% don't use automatic captions at all.

Interestingly, 17% of respondents who rated their caption quality a 9 or 10 use automatic captions all or some of the time. It was surprising to see so many people contend their automatic captions to be high quality.

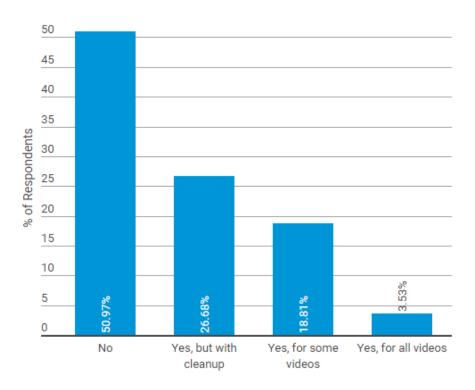


Figure 21: Use of automatic captions (computerized speech recognition)



# Legal Compliance

#### **Understanding Captioning Laws**

Accessibility laws are complicated and a number of factors, including an organization's industry, annual revenue, and amount of publicly available content, determine which captioning laws have to be followed. For example, in the media and entertainment industry, the Federal Communications Commission (FCC) has very strict captioning requirements for broadcast video and for online video that previously aired on television. In higher education and government, the Americans with Disabilities Act (ADA) and Rehabilitation Act are applicable. Corporate entities must comply with the ADA.

While about 67% of respondents are "pretty" or "very" confident they understand captioning compliance, about 33% are either "not very confident" or "not confident at all." This could explain some of the misunderstanding surrounding caption accuracy and quality.

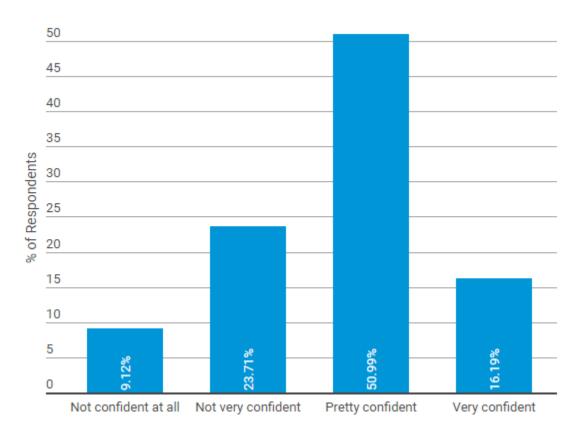


Figure 22: Level of confidence of understanding the legal captioning requirements

## Understanding Captioning Laws [Breakdown by Industry]

Our survey data shows that government agencies and media & entertainment companies are the most confident in their understanding of what it means to comply with accessibility laws.

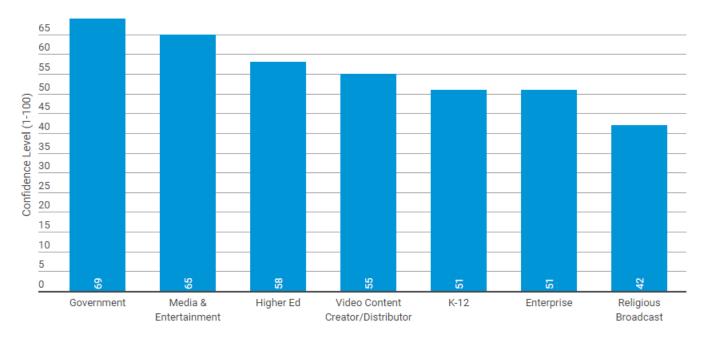


Figure 23: Comparison by industry of the level of confidence of understanding the legal captioning requirements

### **Existence of a Captioning Compliance Policy**

More than 23% of organizations have a clear policy for captioning compliance, and 42% of organizations say it is being developed or on the roadmap. Media & entertainment companies have the highest prevalence of captioning policies - likely because the FCC and CVAA requirements for captioning are so firm and comprehensive. Similarly, government agencies and religious broadcasters also have strict captioning requirements. Policy-making seems to be trending in higher education as video captioning becomes increasingly popular in that industry, yet there is still much work to be done.

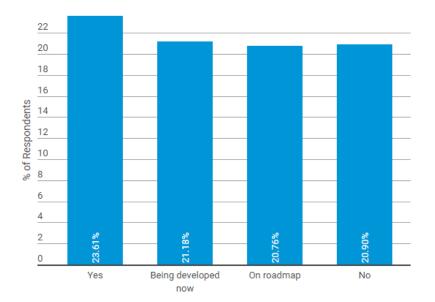


Figure 24: Existence of a clear policy for captioning compliance

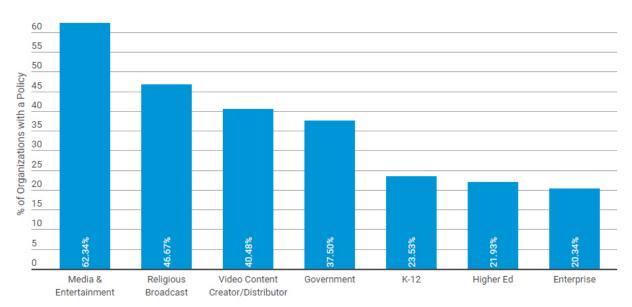


Figure 25: Existence of a clear policy for captioning compliance by industry

### Conclusion

One observable, undeniable trend is that organizations see their captioning needs increasing. Only 1% of respondents see their captioning needs decreasing next year, and a staggering 74% see their needs increasing "moderately" or "significantly" (see Figure 1).

The results indicate some confusion around caption quality and legal compliance. About 17% of those who rated their captions a 9 or a 10 use automatic captions for "all" or "some" of their captioning needs, and 43% of organizations with a clear captioning law compliance policy rate their caption quality an 8 or less. This tells us two things: many people don't understand what accurate captioning looks like, and almost half of the people who have a policy for caption compliance are producing inaccurate captions. At the same time, general feedback on caption quality is high.

However, expectations evolve over time. End-users eventually get used to emerging technological trends, like the transition to smartphones, and subsequently develop ideas about what constitutes a high-quality user experience. As online video continues to dominate social platforms, especially at a time when auto-play video streaming is becoming the norm, viewers increasingly appreciate captions in situations when listening to a video's audio on their mobile device is not an option. And as viewers become more accustomed to using captions, accuracy will become a central issue as people gradually pick up on the difference between high and low quality captions.

As captioning grows in popularity, we predict that awareness of quality and compliance will increase, as well. More and more judicial forces are siding with advocates and other plaintiffs in legal cases and making it clear that video-producing entities like movie theaters, subscription video streaming services, online courses, and corporate bodies need to comply with state and federal accessibility laws by making their video content accessible. And if you're in marketing, you probably already know that the SEO benefits of captioning make them a necessity. The growing presence of online video shows no signs of stopping. Year after year, captioning needs increase and more people are starting to ask, "Where are my captions?"

"Access to information and communication technologies is increasingly becoming the gateway civil rights issue for individuals with disabilities."

- United States Department of Justice



# About the Survey

This survey was taken by 1,419 people between December 2016 and February 2017. Survey respondents came from numerous industries, including higher education, corporate, media & entertainment, government, religious organizations, and nonprofit organizations.

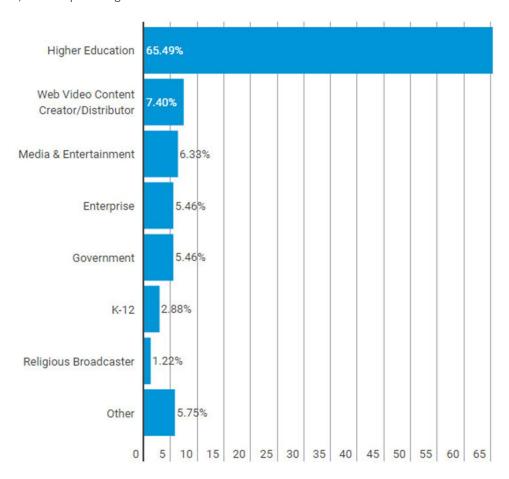


Figure 26: How survey respondents described their industry

Respondents had a variety of roles and job titles. The largest group of respondents, at 57.48%, considered themselves "full-time employees" in their organization. The next largest group, at 28.52%, was composed of individuals in "Direct/manager" positions. Only 6.3% of respondents identified as CEOs, owners, partners, or senior executives within their organizations. The remaining 7.7% of respondents were either part-time employees, contractors, student workers or interns.

Only 17% of respondents were 3Play Media customers.

While most (94.24%) of respondents were from the United States, 2.19% were from the United Kingdom, 1.97% were from Canada, and the remaining 1.6% were from Australia, New Zealand, and Ireland.



# About 3Play Media

3Play Media provides closed captioning, transcription, and audio description to more than 2,000 customers in higher education, enterprise, entertainment, and government. 3Play Media simplifies the process of making videos accessible through flexible APIs, integrations with video players and platforms, simple plugins, and a user-friendly online account system. 3Play Media is based in Boston, Massachusetts, and has been operating since 2007.

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