

# How 5 Colleges Cultivated Video Accessibility at Their Institutions

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## Overview

Between the ADA and the Rehabilitation Act, most institutions of higher education – both public and private – are required by law to provide closed captions to students who are deaf or hard of hearing. However, while the need for accessibility is universal, most colleges and universities approach closed captioning in very different ways. Every school is different, every administration is different, and every department is different. Some choose to caption video content based on need or request; others choose to caption all video content, predicting more strict requirements down the road. There are even colleges and universities that have seen how beneficial captions can be to all students and have expanded their captioning efforts to include interactive video tools and SEO initiatives.

This brief will show you five different approaches to captioning in higher education. You will be able to see how different colleges and universities with different needs have tackled budget, policy development, initiatives to caption more universally, DIY captioning, and working with a captioning vendor. With insight from both private and public universities, this brief will provide you with useful information that you can apply to your institution's accessibility initiatives.



## Portland Community College

Haris Gunadi, the Alternate Media Specialist at Portland Community College, presented on accessibility and captioning policies, workflow, and strategies at the 2014 AHEAD conference. As Alternative Media Specialist, Haris analyzes course media for accessibility compliance and researches new processes and technologies. PCC uses 3Play Media as their closed captioning and transcription provider.



### Portland Community College Accessibility Policies

PCC has approximately 90,000 students across 4 campuses, as well as an “e-Campus” for online learning. In the 2013-2014 school year, PCC had 1,476 students requesting accessibility accommodation. Of those, 69 requested Communication Access for services in 387 classes, and 46 specifically requested Captioned Media across 287 classes. Haris Gunadi’s staff works with professors to help make their classes accessible, which includes captioning video and audio content for students who are deaf or hard of hearing.

In the 2013-2014 school year, PCC had about 120 hours' worth of video to caption. This content spanned many different platforms, including DVDs, online videos, Camtasia videos, internal videos, and podcasts. At the e-Campus, PCC is implementing a program to make sure that every course is made accessible, which means that all video content will have to be captioned moving forward. At the 4 physical campuses, video content is captioned by request.

### Strategies for Engaging Faculty and Addressing Accessibility Issues

While Disability Services’ goal is for instructors to submit a list of video captioning requests with due dates and sources before the semester starts, that rarely happens. They’ve found that at the beginning of a course, 50% of PCC professors do not know what videos they will show in class. Haris believes that professors often have common misconceptions about captioning; they feel like Disability Services can’t handle last minute requests, or that captioning will require a lot of effort. He has found that the more he can simplify the process for professors, the more they will send in their video requests in a timely manner. Developing a relationship with 3Play Media has simplified the process immensely, and further allows Haris more time to reach out to professors.

Haris now tells professors to simply send him the video that they want to show, and he will do the rest. As long as he receives the video 24 hours before the class, he can submit the video to 3Play and get the captions back in time for the class. Once professors realize that the process is not burdensome, Haris finds that they come to appreciate captions. In fact, PCC is finding that many instructors now want Disability Services to caption *all* videos they show in class, even if there is no request. While captioning videos that are requested is always the priority, Haris and his team try to accommodate any video content that professors want captioned, as long as it is content that will be used for multiple terms.

### Portland Community College on In-House Captioning and Choosing a Captioning Vendor

Before partnering with 3Play Media for captioning and transcription services, PCC was facing a number of challenges trying to caption video content in-house. With a small staff, it was difficult to caption content

in time, particularly when many professors provided videos only a day or two before a class. It took about 5 times the duration of a video to transcribe it, which was not scalable for their small staff. Further, there was no time to devote to streamlining Disability Services' relationship with instructors, which only deterred instructors from captioning.

PCC decided to begin using a third party captioning vendor, and found that many of their challenges were solved by working with 3Play Media. Disability Services was able to put more resources towards working directly with instructors to compile video lists. They discovered that the more they were in touch with instructors, the more they were able to get videos in a timely manner. And, they were excited to implement 3Play Media's interactive transcripts, which allow students to search within a video to filter for relevant content. Students can also print and download transcripts.

### Portland Community College Captioning and Transcription Workflow

Haris described PCC's captioning and transcription workflow as such:

- ▶ Students submit captioning, interpreting, and transcription requests.
- ▶ Instructors are contacted before the term starts, as well as consistently throughout the semester, to compile lists of videos for captioning.
- ▶ Accessibility aides search for existing transcripts or captioned versions of the video.
- ▶ If no transcript exists, they will download the video (if online) or transfer DVD/VHS content to digital format, then upload the video to Kaltura so all of their course videos are on one platform.
- ▶ From Kaltura, they submit the video to 3Play Media for captioning and transcription. Usually this process takes 2-3 days, but they can select same day service for last minute content.
- ▶ Disability Services sends the instructor a link to the video while closed captioning is being processed, so they can include it in their presentation in advance.
- ▶ Disability Services adds interactive transcripts to videos once captioning is completed.

Haris has found that using a third-party captioning vendor makes life much easier both for Disability Services staff and for instructors. He is also very pleased with 3Play Media's interactive transcripts, which make PCC's videos even more engaging and accessible to all students.

## University of Wisconsin

Patrick Wirth, director of media services at University of Wisconsin-Extension, presented on accessibility and captioning policies, workflows, and use cases at the 2014 UBTech conference. University of Wisconsin uses 3Play Media as their captioning and transcription provider.



### University of Wisconsin-Extension Accessibility Policies

Continuing Education, Outreach & E-Learning (CEOEL) serves as the coordinator for University of Wisconsin-Extension continuing education programs at all 26 campuses. CEOEL also provides ID, media, and marketing services for 8 collaborative degree programs. The media services team works with both

marketing and online courses. Accessibility policies were developed because UW-Extension (like most places of higher education) is required by law to be compliant with the ADA and Section 508 of the Rehabilitation Act. The accessible designs UW-Extension developed are in line with Web Content Accessibility Guidelines (WCAG), as determined by the World Wide Web Consortium (W3C).

Although the law may have instigated UW-Extension's development of accessibility policies, they have taken it much further, finding that accessible design supports their mission, aids all users, and allows for searching of multimedia. UW-Extension provides captioning and transcription for all media content, not just upon request by students with accessibility needs. Further, an instructional technologist sets up one-on-one consultations with students who have specific accessibility needs. There is an accessibility team at CEOEL that meets quarterly to strategize online accessibility issues and develop best practices. As Patrick said in his presentation, "The one thing we strive for is that we want the outcome of our content to be the same for all of our students across all programs."

### How UW-Extension Utilizes Captioning and Transcription for Accessible e-Learning

Over the past three years, UW-Extension has created an estimated 1,000 media assets, including video, audio, and narrated presentations. All of this media content has been captioned and transcribed with 3Play Media, a remarkably progressive feat. The content transcribed includes meet the instructor videos, virtual labs, virtual fieldtrips, narrated presentations, and what they call "chalk talks." For narrated presentations, UW-Extension has developed an efficient workflow for adding downloadable transcripts with images that correspond to the slides of the media.

In terms of workflow, they simply upload an MP4 file to 3Play Media, receive captions back, and upload captions in the webVTT format, which works well with HTML5. For their downloadable transcripts, they submit the audio file of the narrated presentation to 3Play Media, download the transcript, and apply their program-specific template and images.

"After surveying our students, nearly 50% are downloading our transcripts and using those as study aids."

Patrick Wirth | *UW-Extension*

### Impact of Captions and Transcripts on the Student Body

To see how adding captions and transcripts to media content was impacting the student body, UW-Extension surveyed their Sustainable Management students and found that 50% used the downloadable transcripts as study aids. The students appreciated that they could print the text, read along with the media, and highlight important parts as the instructors presented. In fact, much to UW-Extension's chagrin, they found that some students relied solely on the transcripts and didn't even watch the narrated presentations! The downloadable transcripts are so popular that if somehow a presentation slips through the cracks, students alert tech support right away that there's a missing transcript.

### How UW-Extension Utilizes Captions and Transcripts for Marketing

Not only do the students love captions and transcripts; the CEOEL staff loves them, too! The staff has found that captions and transcripts provide creative marketing strategies. Downloading a transcript of a student interview or testimonial allows the marketing team to rearrange the text into a storyline, pull quotes to highlight, and improve SEO.

Further, many UW-Extension marketing videos get put on YouTube, and captions make the videos rank higher and improve accessibility and engagement. The workflow is simplified because UW-Extension has linked their YouTube channel with their 3Play Media account. All they have to do is select the videos they want captioned, and 3Play Media automatically posts the captions to the video when they are completed.

UW-Extension has taken advantage of the many benefits that captions and transcripts provide, utilizing it for accessibility, student engagement, marketing, SEO, and searchability. Working with 3Play Media to create an efficient and refined workflow, captioning and transcription is now a vital part of their e-Learning strategy.

## Harvard School of Public Health

3Play Media collaborated with the Harvard School of Public Health (HSPH) to create a customized video learning interface. While we have long known the benefits of interactive transcripts in learning, we were happily surprised to learn that HSPH used our interactive transcripts and video search platform to win a Hauser Grant.



HSPH proposed to take leadership videos and classroom lectures from *The Leadership Studio* and edit them into pedagogically relevant clips to be utilized by faculty in courses. Hauser Grant proposals were evaluated based on the degree to which they were innovative, evidenced-based, and extendable. The full proposal was accepted and the HPSH was one of 47 to be awarded a 2012-2013 Hauser Grant.

### Customizable Video Learning with Interactive Transcripts

To make their project a success, HSPH required a video interface that allowed for participation and collaboration, including the following features:

- ▶ Video Search Function: Provide students the ability to search the video by sections or chapters based on topic.
- ▶ Searchable Transcript Function: Allow students to search the transcript so they may find and capture required sections.
- ▶ Clipping Function: Facilitate collaboration by providing students the ability to clip a section of a video, comment on, and then share it through email or social networks.

On top of all this, the interactive video platform would need to integrate with the course websites faculty use for teaching.

The Harvard School of Public Health chose 3Play Media to build this customizable video learning platform. We utilized the time-synced text data of captions and transcripts to create a powerful tool for learning.

Now let's examine leadership as a discipline at HSPH, video as a learning tool, and the development of this unique, user-centered video platform.

## Student Engagement with Video Storytelling at Harvard

After installing a professional webcasting studio in 2010, the Harvard School of Public Health created three video series. These series are aimed at fostering a new kind of leadership talent, one that can effectively translate technical research into effective global health policy.

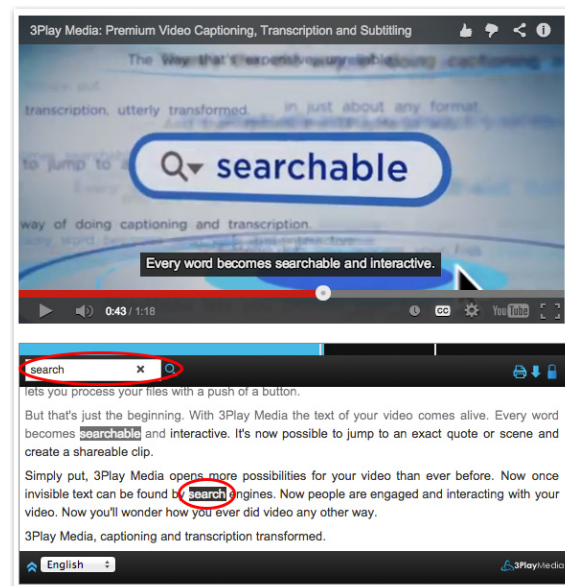
*Decision-Making: Voice from the Field:* This leadership seminar series asks decision-makers to speak about experiences with policy decisions that affect global health. Students hear first-hand from experienced leaders about decisions that were effective, decisions that failed, and which decisions could have been made differently. Past speakers have included ABC News' Richard Besser, former Massachusetts Governor Michael Dukakis and former WHO Director-General Gro Harlem Brundtland.

*The Forum at Harvard School of Public Health:* The Forum at Harvard School of Public Health hopes to provide decision-makers with a global platform to discuss policy choices and scientific controversies. As health issues require intense cooperation and understanding between scientific experts, these panels seek to take advantage of collective knowledge.

*The Leadership Studio:* This webcast series' objective is to unite information, ideas, and experiences that can then in turn be presented to a global audience. Leaders have included governors, ministers, presidential candidates, and cabinet members. The webcast is designed for interaction both in studio and online. Currently the leadership Studio is watched in over 190 countries and territories in the world.

## Learning from Leaders: A 2013 Hauser Grant Proposal

Because of the popularity of *The Leadership Studio*, HSPH felt it was imperative to expose the content to a larger audience. This prompted the proposal "Learning from leaders: Weaving a leadership narrative into the educational experience," offering a solution to integrate previously recorded leadership videos with faculty course materials to enhance the learning experience for students. But how to do it? A team consisting of staff from the learning center, IT, and faculty from the HSPH responsible for curriculum development was assembled to take a multidisciplinary approach to this challenge.



## Scaling Learning with Interactive Video Transcripts

Once the customized prototype was created by 3Play Media, it was tested and assessed by users. HSPH surveyed students regarding in-classroom video experiences and also conducted focus groups to pilot features and user-friendliness. Going forward, the School of Public Health hopes to first launch this tool for faculty within leadership studies, but then expand to other subject matters. Beyond this, the Hauser Grant awardees see diverse applications for this tool university wide.

## MIT OpenCourseWare

After completing online courses for the fall 2012 semester with MIT's OpenCourseWare, students volunteered information about their learning experience. 177 online students answered 10 questions specifically about their use of 3Play Media's interactive transcripts in



conjunction with their video lecture courses. When asked to rate the features of our interactive video transcript, 94% of respondents found one or more of our features "useful" (meaning either: "very useful," "useful" or "somewhat useful"). Furthermore, 94.8% of survey respondents would suggest an implementation of interactive transcripts throughout the MITOCW site.

This isn't surprising. More collegiate and post-collegiate learning is moving online as students seek educational alternatives, wishing to attend classes on a flexible schedule. Our sample size has allowed us to determine a multitude about the way students prefer to learn online. What was particularly revealing was the preference towards multimodal learning as well as controlling the pace of the lectures. As such, we hope to see more institutions of higher learning embrace a more interactive and multi-sensory pedagogy, as we too, utilize this feedback to make our time synchronized transcription solutions even better. Through our research, we have been able to pinpoint six interesting ways MIT students use interactive video transcripts.

### About the MIT OpenCourseWare Study

177 online students answered 10 questions specifically about their use of 3Play Media's interactive transcripts in conjunction with their video lecture courses. Three questions were free-form while the remaining seven assessed the use and helpfulness of interactive video transcript features. In some cases a scale like: "very useful," "mostly useful," "somewhat useful," or "not useful" was employed, while some questions asked participants to select all additional features they utilized while working with the lecture interface. 97% of those who voluntarily completed our survey found the addition of our interactive video features enhanced their online learning experience.

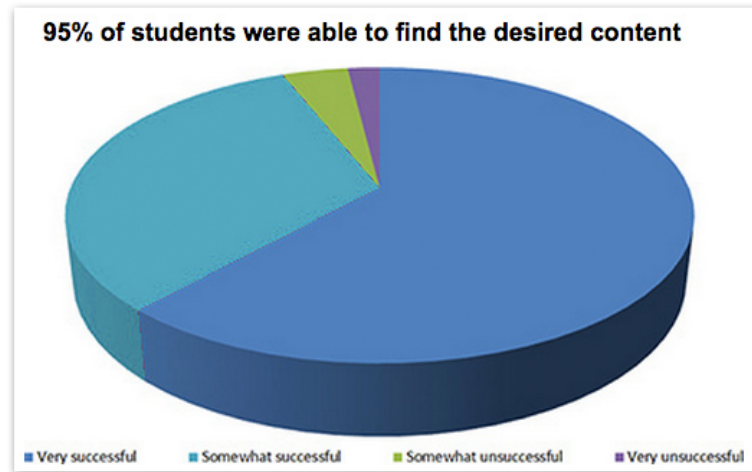
### How Students Are Using Interactive Transcripts

#### 1. Move at Their Own Pace

Our survey allowed for several free-form answers and it was fantastic to hear students express their educational concerns in their own words. Feedback frequently concerned speed. Specifically, the ability to go faster! In many cases this had to do with our transcript search feature, the ability to search for a keyword and jump to that specific point, not only in the lecture but throughout the course videos. "It's now easier to search for particular content in the video- no more manual sliding," said one respondent. We've all become accustomed to a world where information is just a search away. College lectures, jam-packed with content, should be no different.

While many users utilized search to get to the "nuts and bolts" quickly, some used the interactive transcripts to keep pace in a different way. While one respondent admitted he likes to read ahead, others need transcripts to accommodate for bandwidth issues: "I liked the transcript provided at the bottom. I have problems with internet connectivity so if the video stops or is not loading I can go ahead and follow

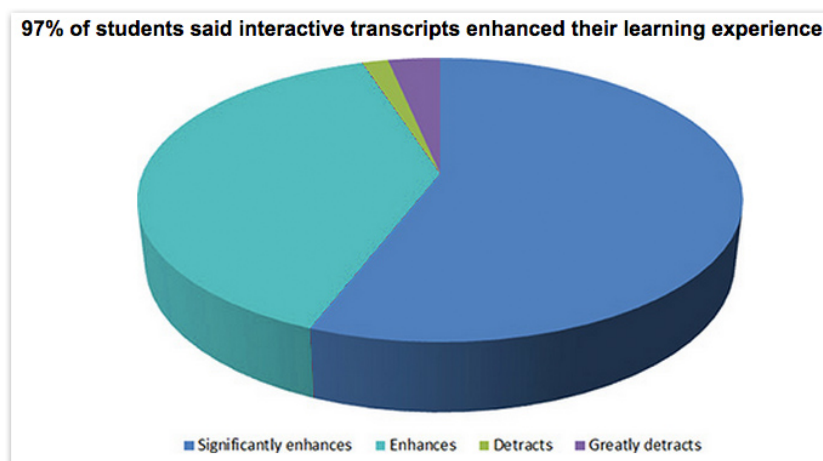
by reading the transcript and then decide if I will refresh to continue viewing the video if it is necessary to see the visuals the lecturer provided.”



## 2. Learn in a Multi-Sensory Mode

We’ve all heard at some time or another that people are either visual or auditory learners. In many respects, we are a bit of both. The concept of dual coding theory indicates that multi-sensory learning styles are more effective because often we can only absorb only so much through one medium. A “channel” can become “overloaded” and to compensate, our brains will switch to another mode of comprehension. If you’ve reread the same page three times and nothing seems to be sinking in, you know what we are getting at.

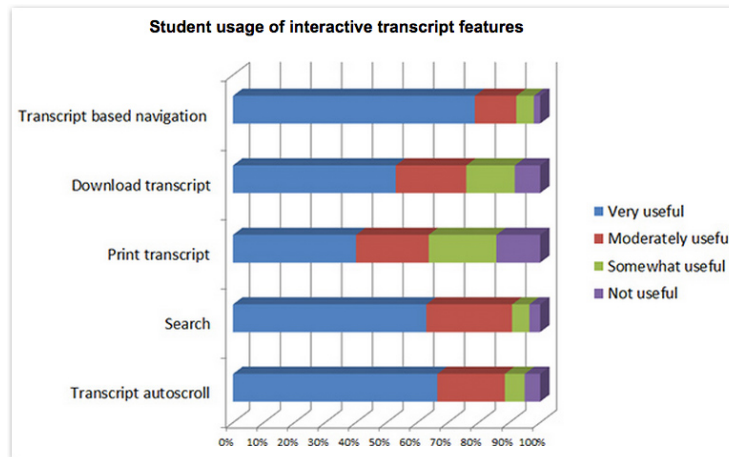
Multi-sensory learning is a teaching best practice. Time synced transcripts allow inherent multimodal education. “The value of the written lecture along with the seeing and hearing the actual professor is an invaluable tool to me, because I sometimes need multiple ways to learn effectively,” answered one student.



## 3. Create Study Guides

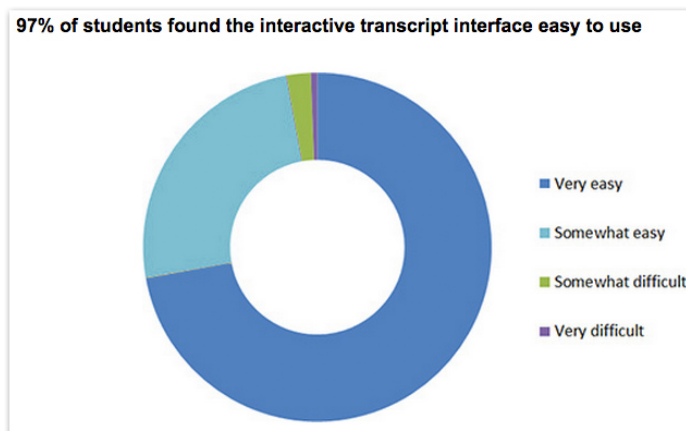
Transcribed video allows for multiple uses beyond just following along. Our interactive transcript plugin allows for the ability to [print or download a transcript](#), allowing students to take away study tools after the lecture is complete. Just a few educational uses for 3Play transcripts: lecture notes, course study guides, flash cards, power point presentations and text book rough drafts.





#### 4. Improve Comprehension of Complex Scientific Concepts

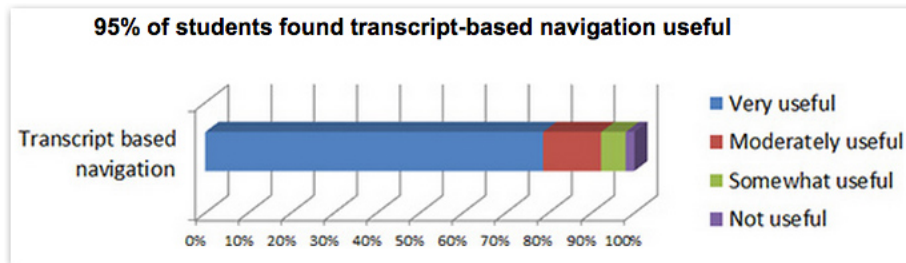
Many of the students responded with feedback that it was easier to absorb difficult concepts and vocabulary when watching a video lecture while reading along with a transcript. This is consistent with studies showing that the multi-sensory learning model has positive implications for understanding science. According to research conducted in virtualized environments, multisensory immersion can correct intuitive frameworks, reshape experiences and improve mental models. This means concepts not easily understood through our everyday experiences can be simulated through the cohesion of audio, visual, and kinetic interfaces to the benefit of the end user. Or as one MIT OCW student put it “, Engagement of two senses (hearing and seeing) results in greater comprehension than one or the other.” Outfitted correctly, computers and their accompanying programs provide important feedback loops, aiding everyone in today’s online societies.



#### 5. Understand English as a Second Language

Whether understanding new class terminology or learning English as a second language, multi-sensory learning is preferred. By simultaneously reading and listening to information, several learning centers are stimulated, improving recall. For example, an exam usually occurs in a uni-sensory mode: filling bubbles or writing essay answers. However, when accessing important information, via memory, humans are able to better recall information presented in a multisensory format instead of visually alone. “It allows us non-native English speaker students to understand every single word the teacher has said. Furthermore, the

navigation of the video by clicking on a word is very helpful to keep track of our advancement in a video,” replied one ESL student. For non-English speaking learners, using transcript-based navigation enables students to click on a new term and jump to different views in the video, putting each term in a multitude of contexts.

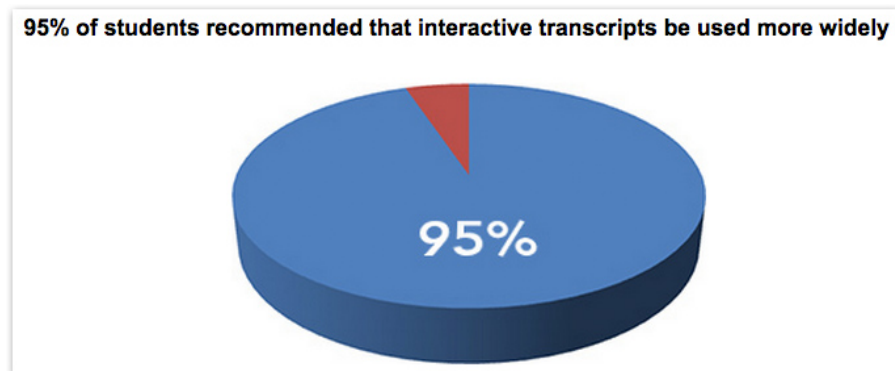


## 6. Stay Focused on 60-Minute Lectures

In an online learning format, bite-sized pieces are most desirable. In fact, students suggested methods to enhance brevity: shorter, 15-minute videos or sub-categories contained within transcripts. Others however, utilized the interactive transcript to keep their attention on the task at hand. As one elearner put it: “I found the follow-along text highlighting made it very easy to keep up with the speaker. I also found the feature kept me focused on the lecture.” Another gave us a glimpse into his late night study habits; surprisingly he found watching a lecture couldn’t put him to sleep! “It is 2:10am, I couldn’t sleep. While I was watching I got sleepy... but I got so engaged I saw the whole thing! And now I can’t sleep! I’ll watch the next class during the day.”

## Interactive Transcripts and the Future of Education

As we analyze this information, the obvious question is what does this mean for the future of education? While universities battle to keep technology up to date across large infrastructures, online learning is the forefront for cost-effective implementation of user-controlled and user-friendly interfaces. eLearners strive to be able to click, search, rewind, skim, seek, pause, highlight, download and do a million other actions. As independent learners, they value their time and idealize the customization of their experience. If you build it, they will come.



## Regis University

Regis University's department of Learning Design is responsible for the instructional design and development of all online courses within the College for Professional Studies. The department works in collaboration with faculty to create enterprise-level, online, and blended courses. It currently has 465 online courses, of which 60% contain video content. Videos are published using the Kaltura video platform.



### What is Regis University's Motivation for Captioning and Transcription?

Regis University is committed to making all required course materials accessible to all learners. In 2011, they adopted a college level accessibility policy to guide course development and assure that they were fulfilling their accessibility commitments. Their accessibility policy was shaped around the Web Content Accessibility Guidelines— WCAG 2.0 version, which covers a wide range of recommendations for making web content more accessible. Also, Regis University recognizes that many people learn better when information is presented in multiple sensory modes. Reading captions while simultaneously listening and watching a video is beneficial for learning.

### Comparing Regis University's Previous and Current Captioning Processes

Prior to 3Play Media and Kaltura, the process of publishing accessible video was a daunting task that relied on a proprietary captioned video player and a cumbersome captioning workflow. To streamline the process, Regis University tried YouTube's automated speech-to-text transcription, but determined that the transcription accuracy was inadequate and the effort to correct the text was too laborious.

Regis University discovered that Kaltura and 3Play Media could streamline their video publishing and captioning process. Now, Regis University uploads video files to Kaltura and assigns the "3play" category to videos that need to be captioned. This initiates a captioning request with 3Play Media and the captioning + transcription process happens automatically in the background. Next, they select a pre-designed captioned player, copy the embed code, and paste it in the HTML page. Within a few days, the closed captions automatically show up in the Kaltura player, and the videos become accessible.

In addition to captions, Regis University uses 3Play Media's interactive transcripts, which enable learners to experience a whole new level of usability. The transcripts are searchable, printable, and users are able to navigate to a specific point in a video by clicking on a word.

### Regis University's Results

With Kaltura and 3Play Media's automated captioning workflow and interactive transcripts, Regis University has been able to satisfy their accessibility policy, increase usability, and substantially streamline their development process. The effort of publishing accessible video was cut in half and the process became more robust, resulting in fewer tech support issues.

"With 3Play Media and Kaltura, we were able to satisfy our accessibility policy, increase usability, and substantially streamline our captioning workflow."

Nicole Croy | *Regis University*

## Conclusion

Regardless of the legal requirements, there are many good reasons to caption your video content if you are a college or university. All five of the institutions in this brief have experienced numerous benefits from their use of captions and interactive transcripts. Even better, their students find that these tools increase their learning potential and provide useful study aids.

There are many things to consider when developing your captioning policy, including budget, resources, and legal requirements. We hope that these case studies have provided you with some new ideas and inspiration to move forward with. For more specifics about implementing video accessibility policies at your school, we encourage you to read our 2015 Roadmap to Web Accessibility in Higher Education.

## Resources

### Case Studies

Portland Community College [case study](#)  
University of Wisconsin-Extension [case study](#)  
Harvard School of Public Health [case study](#)  
MIT OpenCourseWare [case study](#)  
Regis University [case study](#)

### Helpful Links

More About [Interactive Transcripts](#)  
[Case Studies](#)  
Captioning and Transcription [FAQs](#)  
[2015 Roadmap to Web Accessibility](#) in Higher Education

## About 3Play Media

3Play Media provides cost-effective, premium quality captioning, transcription, and subtitling solutions to hundreds of customers in higher education, enterprise, entertainment, media, and government. Our mission is to simplify the process by providing a user-friendly account system, flexible API's, and integrations with a multitude of video players, platforms, and lecture capture systems. 3Play Media is based in Cambridge, MA and has been operating since 2007.

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