

Making Video Accessible

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One platform that works the way you do.










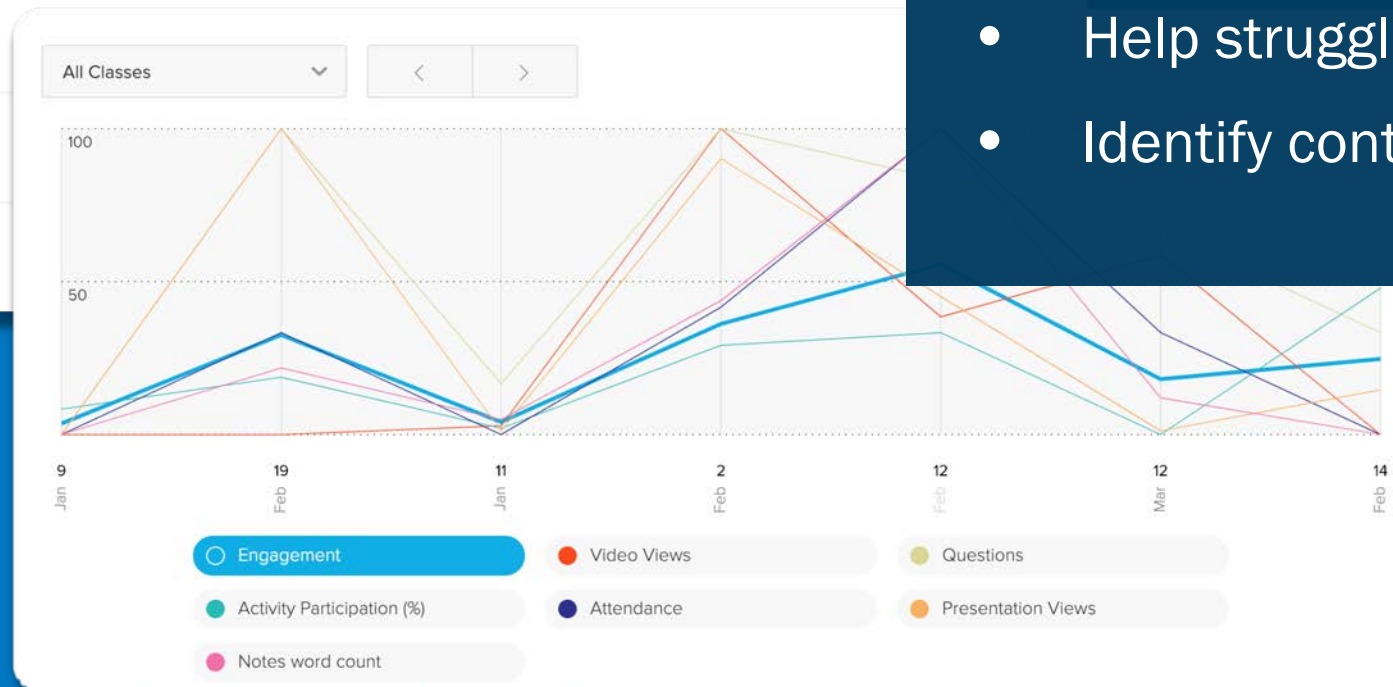
Turns passive video into active learning.

- Only video platform to support student interactivity during class, for classroom and remote learners alike
- Instructors can adjust teaching as needed based on student confusion indicator
- Flexible polling options support real-time assessment
- Personal study guide allows students to relive learning experiences on demand

The screenshot displays the Echo360 interface. At the top, a dark navigation bar contains icons for notes, chat, a plus sign, a bookmark, a flag, and a speaker. Below this, a video player shows a document with text about atmospheric pressure. A yellow highlight is placed over the timestamp '5:19 / 7'. A comment box is overlaid on the video, containing the text '1/2/2014 1:08pm' and the question 'What kind of storm systems form tornadoes?'. Below the video, a search bar contains the text 'Search across all content'. A question overlay is also present, asking 'Where is the condensation funnel?' and featuring a photograph of a large, dark storm cloud with a funnel extending to the ground. At the bottom of the question overlay, there is an 'EDIT ANSWER' button and a note: 'Hover over responses to see justifications.'

Goes beyond basic video statistics, providing unique  learning insights to improve student success.

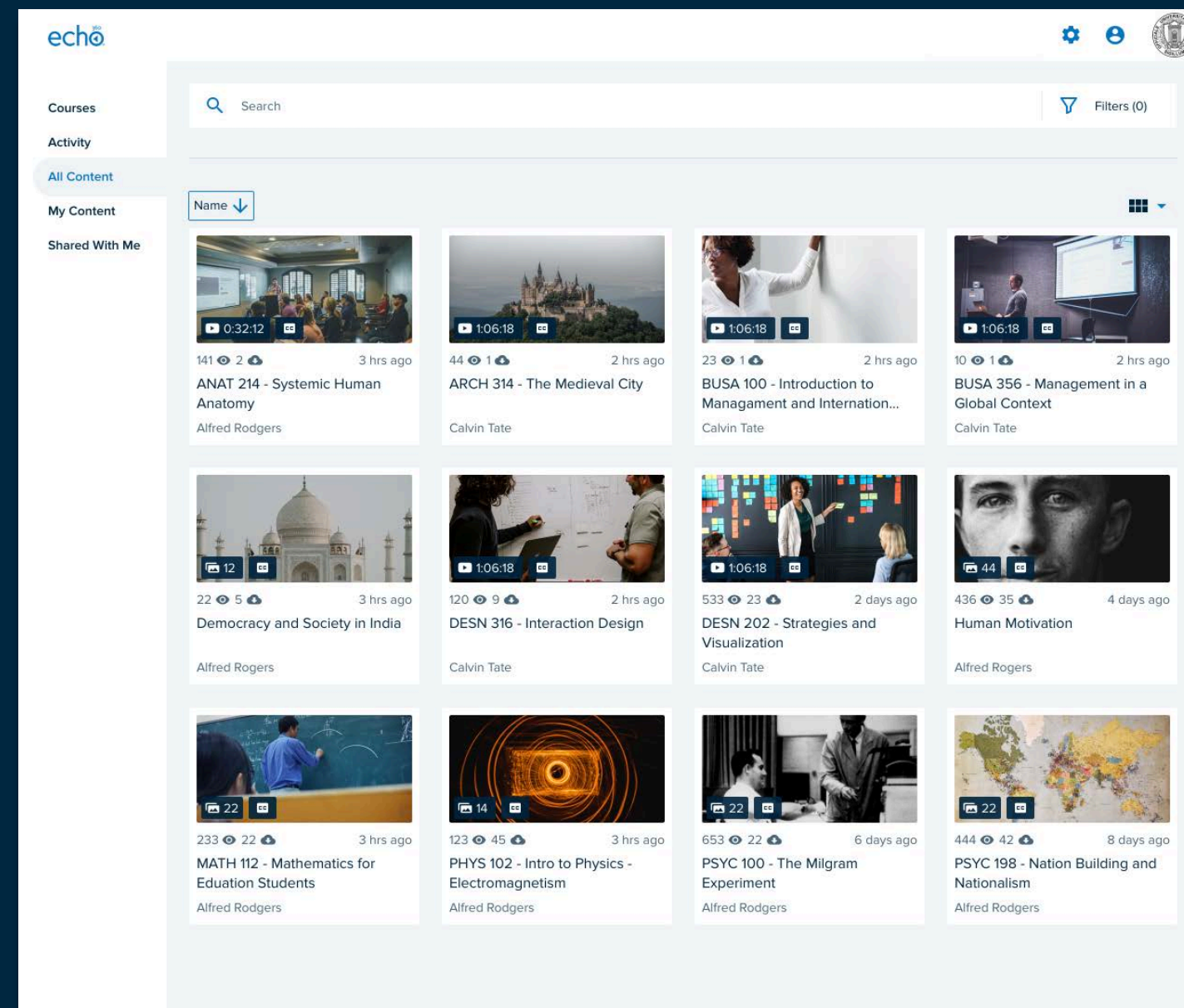
Name	Engagement	Attended?	Video views	Pres. views	Questions	Activity part. / correct	Notes (word count)
 Emily Hunter	20%	42%	3	7	0	33% / 50%	0
 Stacy Van Dusen	44%	68%	45	39	4	89% / 95%	
 Roger Michaels	48%	77%	43	32	3	67% / 100%	
 Chris Rodriguez	54%	81%	54	14	5	74% / 68%	
 Mano Gerard							
 Steve Lee							
 Jennifer Gardner							



- Track student learning behaviors correlated with success in each class
- Easily see your most and least engaged students
- Help struggling students before it's too late
- Identify content that students find confusing

Comprehensive video management without complexity.

- Automatically organizes your videos for easy browsing
- Search, filter, or sort to easily find what you need
- Share videos with individuals, groups, classes, and the public
- Easy access to video analytics
- All from within your LMS



What is accessibility, and why is it important?

What is accessibility, and why is it important?

- At least 1 in 5 people in Australia have a long term illness, impairment, or disability.
 - Many more have a temporary disability



Sources: <https://flexforward.pressbooks.com/chapter/accessible-education/>; Australian Bureau of Statistics (ABS) 2016, 4430.0 - *Survey of Disability, Ageing and Carers 2015*, viewed 24 February 2017.

Ensuring Accessibility

- **Each country has laws...**
 - ADA & Section 508 of the Rehabilitation Act (US)
 - European Accessibility Act (EU)
 - Updates to Equality Act of 2010 requires all public websites and mobile apps to meet WCAG 2.1 AA by September 23, 2020 (UK)
 - Disability Discrimination Act of 1992 (AUS)
 - United Nations' Convention on the Rights of Persons with Disabilities
- **... but web accessibility is moving towards a global standard**
 - WCAG 2.1 (Web Content Accessibility Guidelines)
 - A, AA, and AAA compliance



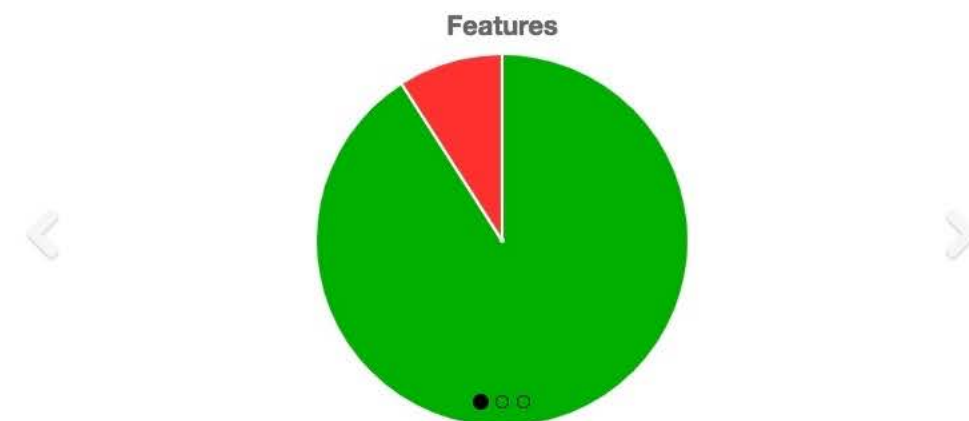
What we're doing today

- Fully automated testing
 - Axe Accessibility engine integrates open source JavaScript with other Cucumber/Ruby based frameworks we use for other tests
- Support and use a UI Component Library
- All new features and feature sets are tested for 2.1 compliance

Project	Number	Date
ALP-QA-BVT-IE	18	09 Nov 2018, 09:12

Features Statistics

The following graphs show passing and failing statistics for features



Feature	Device	Steps					Total	Pass
		Passed	Failed	Skipped	Pending	Undefined		
Register a new Admin	test_results	0	1	5	0	0	6	1
Admin Can Upload Media to Captures List	test_results	0	0	0	0	0	0	0
Admin Can Upload and View Video Captions From Content Details Page	test_results	0	0	0	0	0	0	0
Administrator Creates New Users	test_results	18	0	0	0	0	18	2
Register a new Instructor	test_results	6	0	0	0	0	6	2
Instructor Can Upload and View Video Captions From Content Details Page	test_results	0	0	0	0	0	0	0
Instructor Can Upload Media to Their Library	test_results	0	0	0	0	0	0	0
Instructor Can Download Media Files From Their Content	test_results	0	0	0	0	0	0	0
Register a new Student	test_results	6	0	0	0	0	6	2
Student Can Upload Media to Their Library	test_results	0	0	0	0	0	0	0
Student Can Download Media Files From Their Content	test_results	0	0	0	0	0	0	0
-	-	30	1	5	0	0	36	7
-	-	83.33%	2.78%	13.89%	0.00%	0.00%	-	87.50%

Accessibility Remediation – Level Access

- Partnering with Level Access
- Founded in 1997 by engineers with disabilities pre-WCAG, longer than any other US-based vendor
- Supported remediation and continued auditing of more than 1000 companies
 - All testing and remediation suggestions performed by employees with disabilities
- Leaders include Tim Springer (CEO and Co-Founder) and Jonathan Avila (CAO)



Tim Springer



Jonathan Avila

Areas of Remediation

1. Perceivable

- Information and user interface components must be presentable to users in ways they can perceive

2. Operable

- User interface components and navigation must be operable

3. Understandable

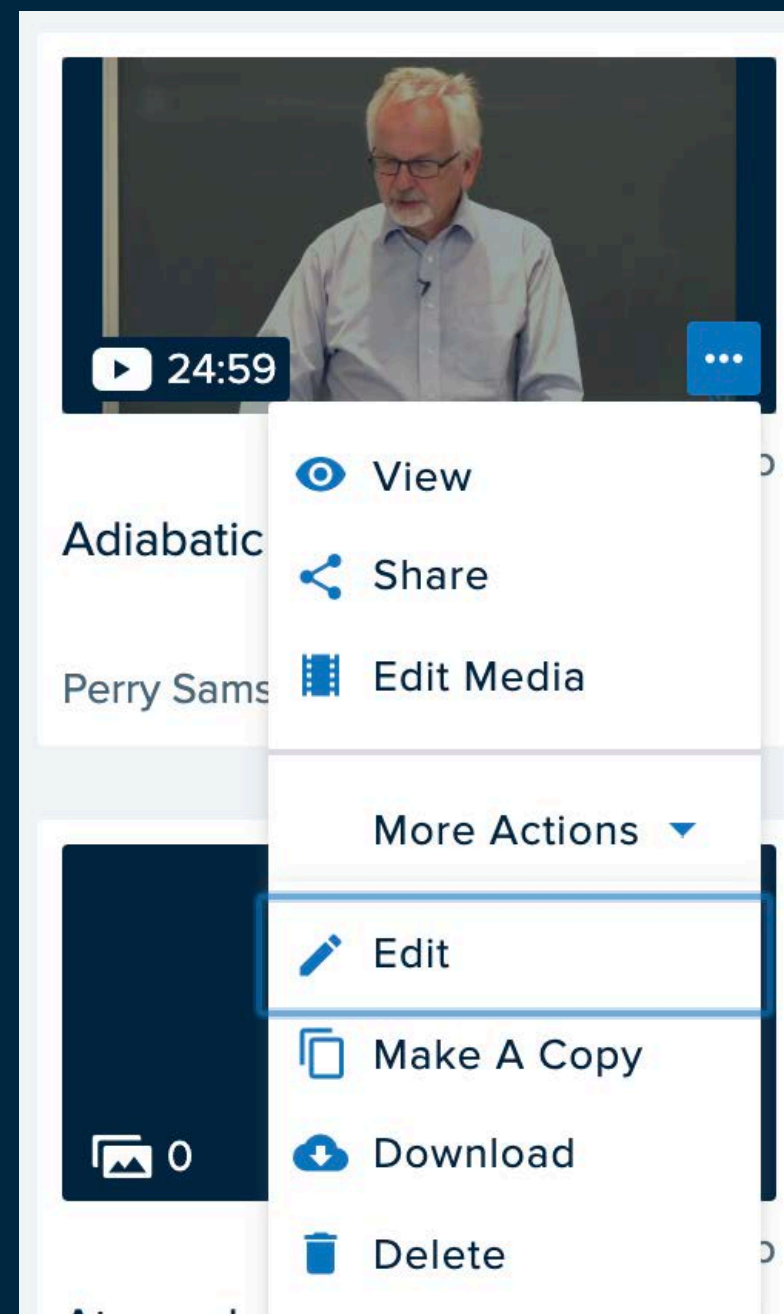
- Information and the operation of user interface must be understandable

4. Robust

- Content must be robust enough that it can be interpreted by a wide range of user agents, including assistive technologies

Accessibility Remediation

- **Beginning global audit, including:**
 - Universal Capture
 - Student, Instructor, and Admin roles
 - Mobile app
- **Once complete, will begin remediation, starting in areas that affect the most users**



Standards are evolving

- “The Public Sector Bodies (Websites and Mobile Applications) (No. 2) Accessibility Regulations 2018”
- Deadline of full WCAG 2.1 AA compliance by September 23 2020

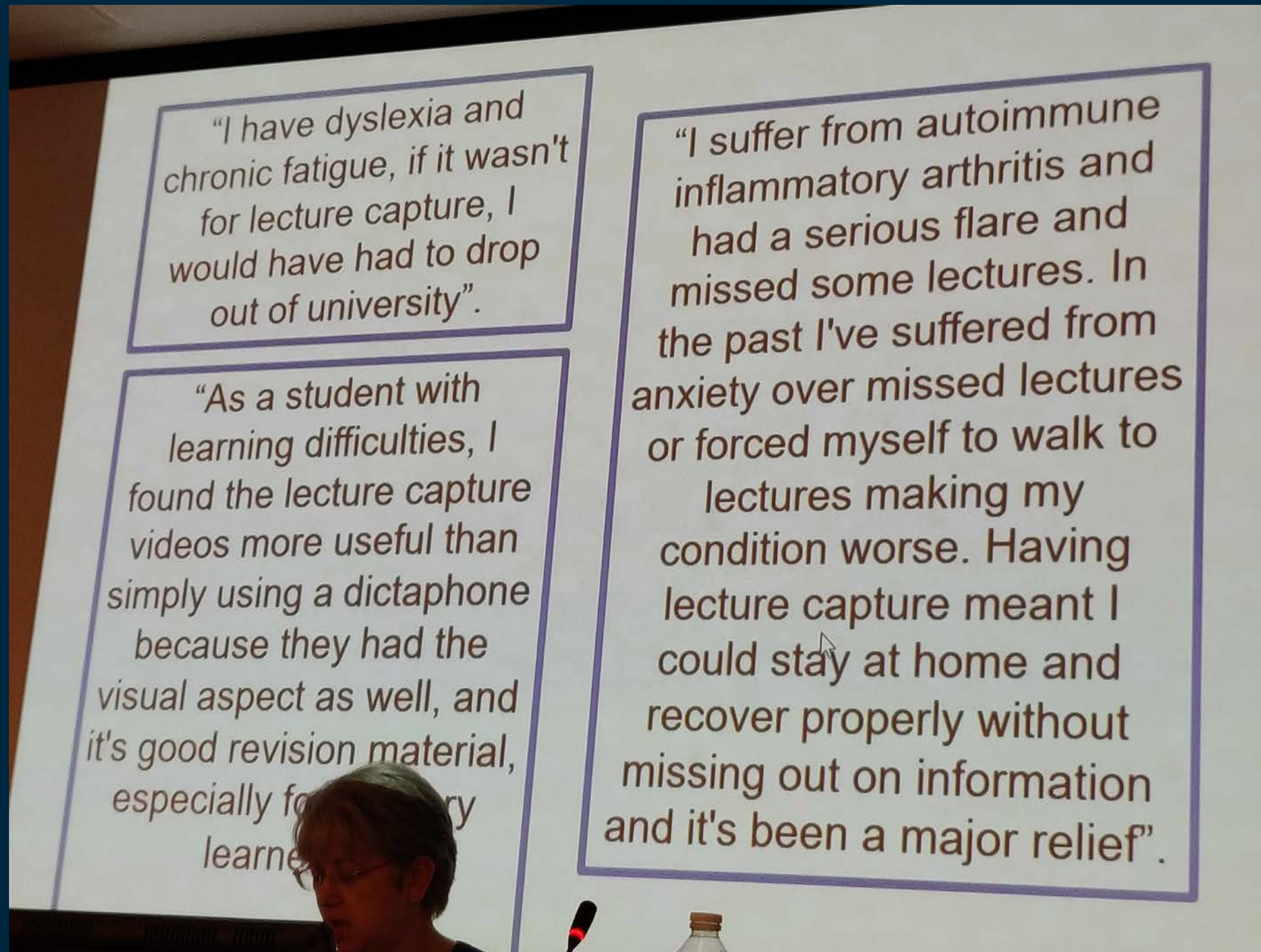


What's at stake?

- **“In every single legal action so far, the litigant has prevailed.”**
 - Cassey Green presenting the Campus Computing Survey 2018
- **Over 240 federal ADA website compliance lawsuits were filed in 2016 alone**
- **Awards vary, but legal fees go from \$25,000 upward**
- **In the early 2000s, the 23-campus CSU system pulled all content out of the iTunes University program**
 - Apple responded by fixing accessibility issues for Mac and Windows
 - Started an accessibility-first initiative and has led the industry

What tools can you use to help make your content accessible?

Strengths of Lecture Capture



Transcription & Closed Captioning for Accessibility



- **Transcription is a significant improvement in the accessibility of video**
 - Not all accessibility is about sensory impairment
 - Provides learners other modes of viewing content
 - We know the accuracy is not enough for closed captioning
 - (Transcripts != Closed Captioning)
- **Closed Captioning is still the primary focus of video accessibility**
 - Needs to be 99% accurate and include key descriptions
 - A compliant in-house captioning initiative needs to have accountability

Closed Captioning Partners



CaptionSync
by Automatic Sync Technologies



Transcripts vs. Captions in the Echo360 Classroom



- Different standards for accuracy of transcripts vs. captions
- Can be used for different purposes

The screenshot shows the Echo360 interface. At the top, it displays 'echo WTEST-303 - Scheduled Captures Thu Aug 16' and 'WT-Test-2018 - Webteam T...'. A search bar contains the text 'Huygens' and shows '8 Results'. Below the search bar is a video player with a portrait of Christiaan Huygens. A search overlay is visible on the right side of the video player, displaying search results for 'Huygens'. The first result is highlighted in green and reads: '**Huygens** was the discoverer of titan, the largest moon of saturn.' A mouse cursor is pointing at this result. Other search results are visible below, including 'planet.', 'Yeah.', 'His discoveries with the telescope would, by themselves, have ensured his place in the history of human accomplishment.', 'The immense size and changing clouds of jupiter entranced him.', 'Astronomers, as well as navigators, need accurate clocks to time the movement of the heavens.', 'Huygens was the inventor of many precision timepieces, including the pendulum clock.', 'To illustrate was some centered universe of copernicus.', 'He built computers that reproduced the clockwork of the heavens, from mercury to saturn.', 'The machines he designed.', 'He signed christian **huygens** inventor.', and 'He was delighted that the copernican'.

Echo360 and Amazon Transcribe

- **Selected partnership based off testing of multiple other platforms**
 - Google
 - Watson (IBM)
 - 3Play
- **Support appropriate language packs for our four regions (AU, US, UK, CA)**
- **Growing support and testing for multiple languages**
- **Close partnership in steering new features and prioritization of roadmap**

Transcript Demo

Offline editing of Transcribe files

```

38 9
39 00:00:27.230 --> 00:00:30.710
40 feel free to email me,
41 and I'll do my best
42
43 10
44 00:00:30.710 --> 00:00:33.800
45 to answer those questions
46 in a timely fashion.
47
48 11
49 00:00:33.800 --> 00:00:36.420
50 Also throughout the lecture, of
51 course, you can ask questions.
52
53 12
54 00:00:36.420 --> 00:00:38.586
55 And these questions can be
56 asked after the fact when
57
58 13
59 00:00:38.586 --> 00:00:40.190
60 you watch the recordings.
61
62 14
63 00:00:40.190 --> 00:00:43.340
64 Just alert us as to which
65 slide you're talking about,
66





```

9 results found for 'also' Finding with Options: Case Insensitive . * Aa [list] [list] X

also 9 found Find Find All

Replace in current buffer Replace Replace All

Transcript Editor

CREATE

Export Save Share

New Lecture01

[← Edit Transcript](#)

Uploaded on July 15, 2018 by Martin Norton

Keywords

Hand Happy Tree Little

00:01:00 / 3:33 1X

Martin Norton 00:00:00

I was blessed with a very steady hand; and it comes in very handy when you're doing these.

In life you need colors. Fluff that up.

Let's put some happy little trees and bushes back in here.

Speaker 00:00:47

That easy. We want to use a lot pressure while using no pressure at all.

Here's something that's fun. We'll put a happy little sky in here.

Speaker 00:01:03

Now we'll take the almighty fan brush.

Speaker 00:01:12

Even trees need a friend. We all need friends.

Use your imagination, let it go.

Speaker 00:01:21

Every day I learn a little. All you have to do is let your imagination go wild.

Use what you see, don't plan it. Tree trunks grow however makes them happy.

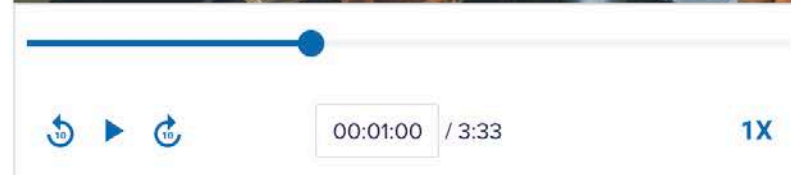
Transcript Editor – First iteration

- Allows user to edit transcripts generated from Amazon's Transcribe service
 - Or 3rd party generated via upload
- Low confidence words are automagically flagged
- Users can push transcripts to the caption track
- Access is controlled via TA role (Instructors and Admins can always access)

The screenshot displays the Echo360 Transcript Editor interface. At the top right, there is a blue 'CREATE' button. Below it, a search bar is visible with a magnifying glass icon and the text 'Search'. To the right of the search bar are navigation controls: an up arrow, '1 of 5', a down arrow, and a close 'X' icon. Further right are 'Export' and download icons. A modal window titled 'Replace with' is open, showing a text input field containing the word 'tiny'. Below the input field are three buttons: 'Done', 'Replace', and 'Replace All'. The main content area is split into two columns. The left column features a video player showing a classroom scene with a presenter and students. Below the video is a progress bar and playback controls, including a play button, a volume icon, a '1X' speed indicator, and a time display showing '00:01:00 / 3:33'. A 'Pause when typing' toggle switch is located at the bottom left of the video player. The right column displays a transcript with speaker names and timestamps. The first speaker is 'Martin Norton' at '00:00:00'. The transcript text includes: 'I was blessed with a very steady hand; and it comes in very handy when you're doing these.', 'In life you need colors. Fluff that up.', and 'Let's put some happy tiny trees and bushes back in here.'. The second speaker is 'Speaker' at '00:00:47', with text: 'That easy. We want to use a lot pressure while using no pressure at all.', 'Here's something that's fun. We'll put a happy little sky in here.'. The third speaker is 'Speaker' at '00:01:03', with text: 'Now we'll take the almighty fan brush.'. The fourth speaker is 'Speaker' at '00:01:12', with text: 'Even trees need a friend. We all need friends.', 'Use your imagination, let it go.'. The fifth speaker is 'Speaker' at '00:01:21', with text: 'Every day I learn a little. All you have to do is let your imagination go wild.', 'Use what you see, don't plan it. Tree trunks grow however makes them happy.'

Transcript Editor – Future features

- Future features:
 - Total confidence score per transcript
 - Bubble up commonly used keywords
 - Comments



New Lecture01

Uploaded on July 15, 2018 by Martin Norton

Keywords

Hand Happy Tree Little

Martin Norton 00:00:00

I was blessed with a very steady hand; and it comes in very handy when you're doing these.

In life you need colors. Fluff that up.

Let's put some happy little trees and bushes back in here.

Speaker 00:00:47

That easy. We want to use a lot pressure while using no pressure at all.

Here's something that's fun. We'll put a happy little sky in here.

Speaker 00:01:03

Now we'll take the almighty fan brush.

Speaker 00:01:12

Even trees need a friend. We all need friends.

Use your imagination, let it go.

Speaker 00:01:21

Every day I learn a little. All you have to do is let your imagination

Use what you see, don't plan it. Tree trunks grow however make

Speaker 00:01:29

We don't have to be committed.

Mollie Gardner Resolved
6:32pm Mar 9

Do trees really need a friend though?

Jane Henry
4:03pm Mar 11

Well, if a tree falls in the forest and nobody heard it, does it make a sound?

Label
Reply...

Cancel Reply

How can we help?

- **Open to other tools, cohorts, webinars, anything!**
- **Would love to hear from the community:**
 - What standards or workflows has your university already implemented?
 - What will need to be implemented or changed in the future?
 - What gaps do you foresee that you aren't yet sure how to solve?
 - What standards or best practices are you driving that you think others could learn from?

Thank you!

Cassidy Fein,
Senior Product Manager

