



Feeding Many Birds with One Piece of Bread: Process and Impact of Providing Accessible Multimedia Course Materials

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QM Works in the Great Pacific Northwest 2015 Conference

Agenda

- **Our story**
- **About our title**
- **The context: our campus & our collaborators**
- **Assessing the needs**
 - **Questions about video usage**
 - **Questions about captioning needs**
- **Our captioning services**
 - **Infrastructure**
 - **Workflow process**
- **Wrap-up: Take-away's**
- **Q & A**

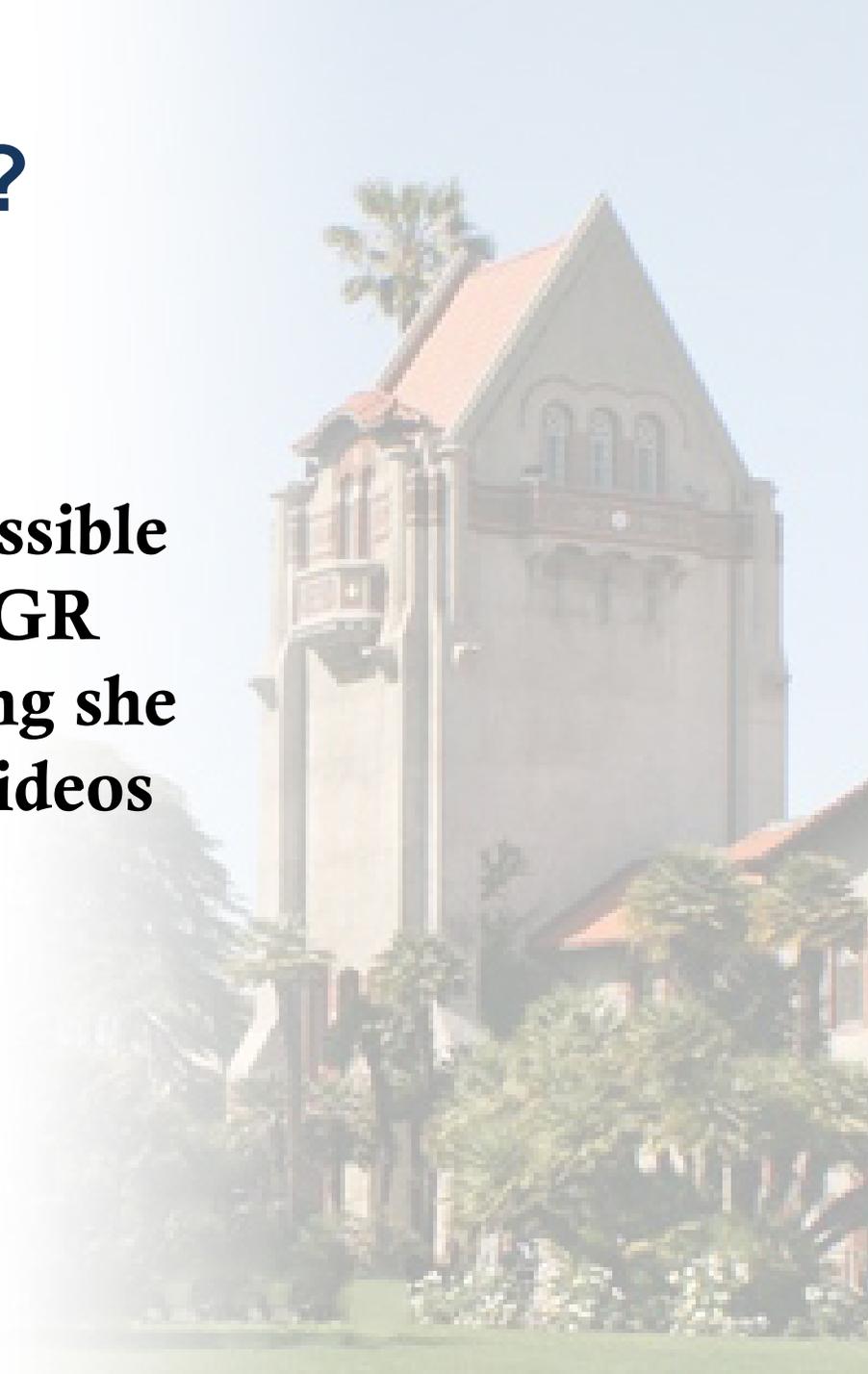


GreenTalk Speaker Series Success Story at SJSU

- **All Engineering students are required to take the 100W course and attend the Green Talk guest speaker series**
- **GreenTalk lectures feature practicing engineers, scientists, and technical experts who deliver up-to-date briefings on how they deal with environmental issues**
- **The live lecture series is held in the Engineering Auditorium; students enrolled in evening sections have to view recorded versions of the talks on DVD**

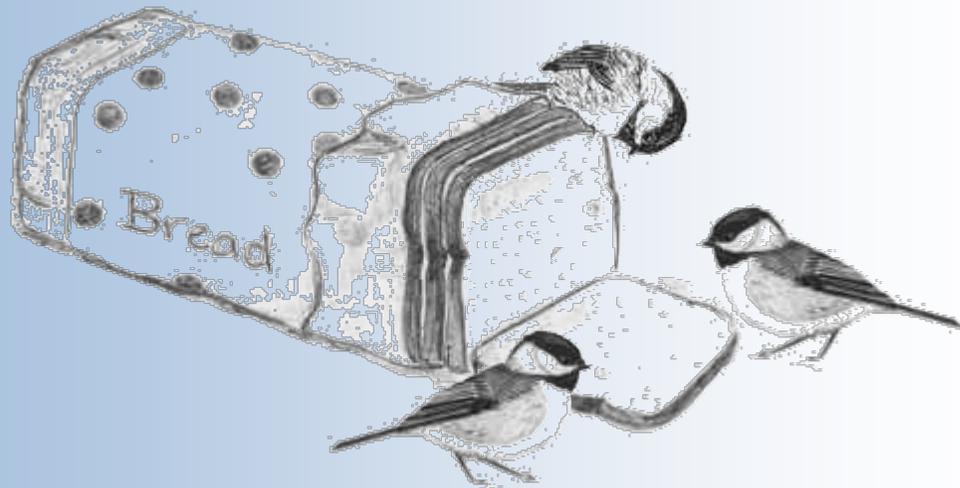
Is This a Success Story for All?

In Fall 2014 a student registered with Accessible Education Center (AEC) enrolled in ENGR 100W and his instructor contacted me saying she needed closed captioned (cc) Green Talk videos for the student



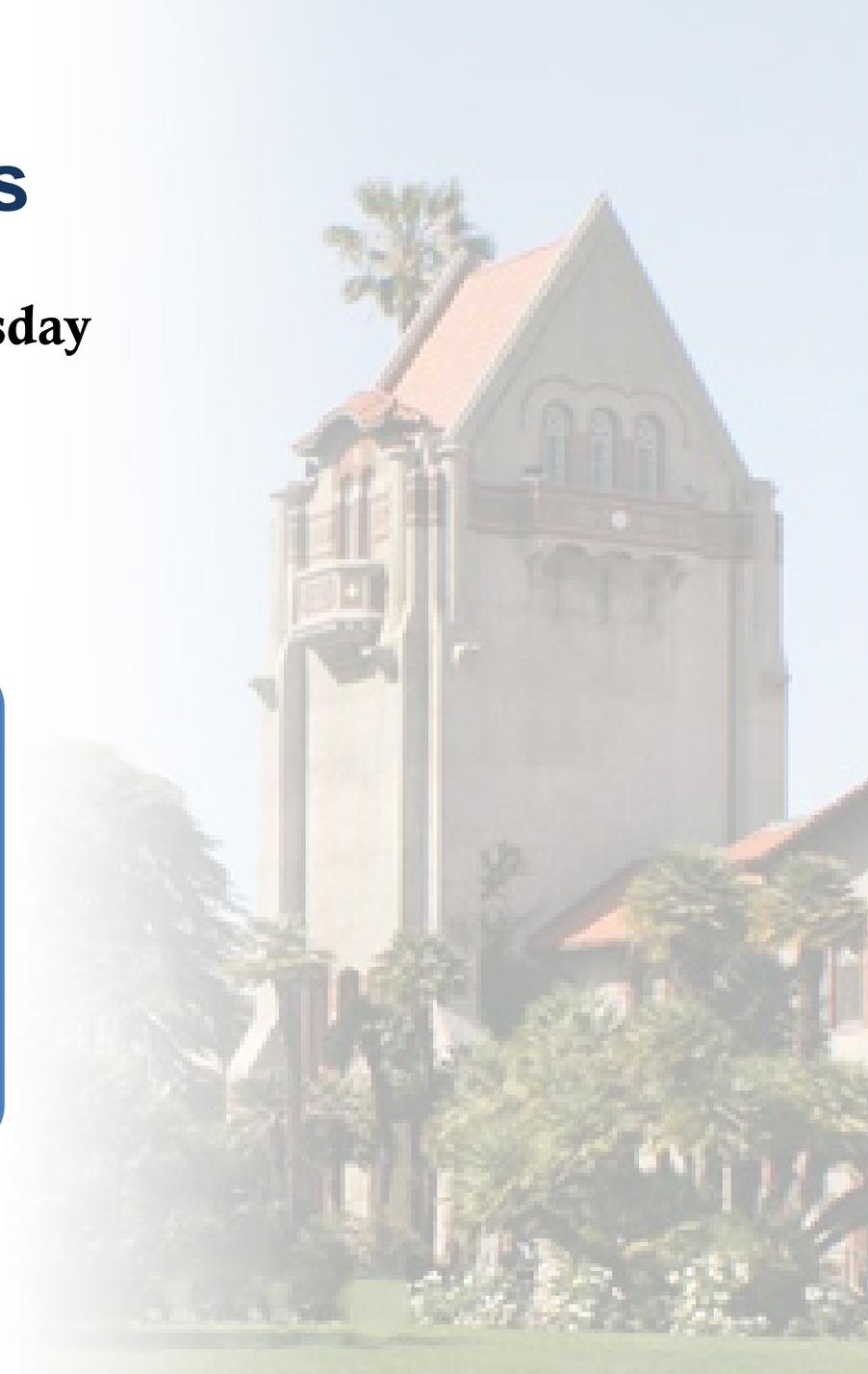
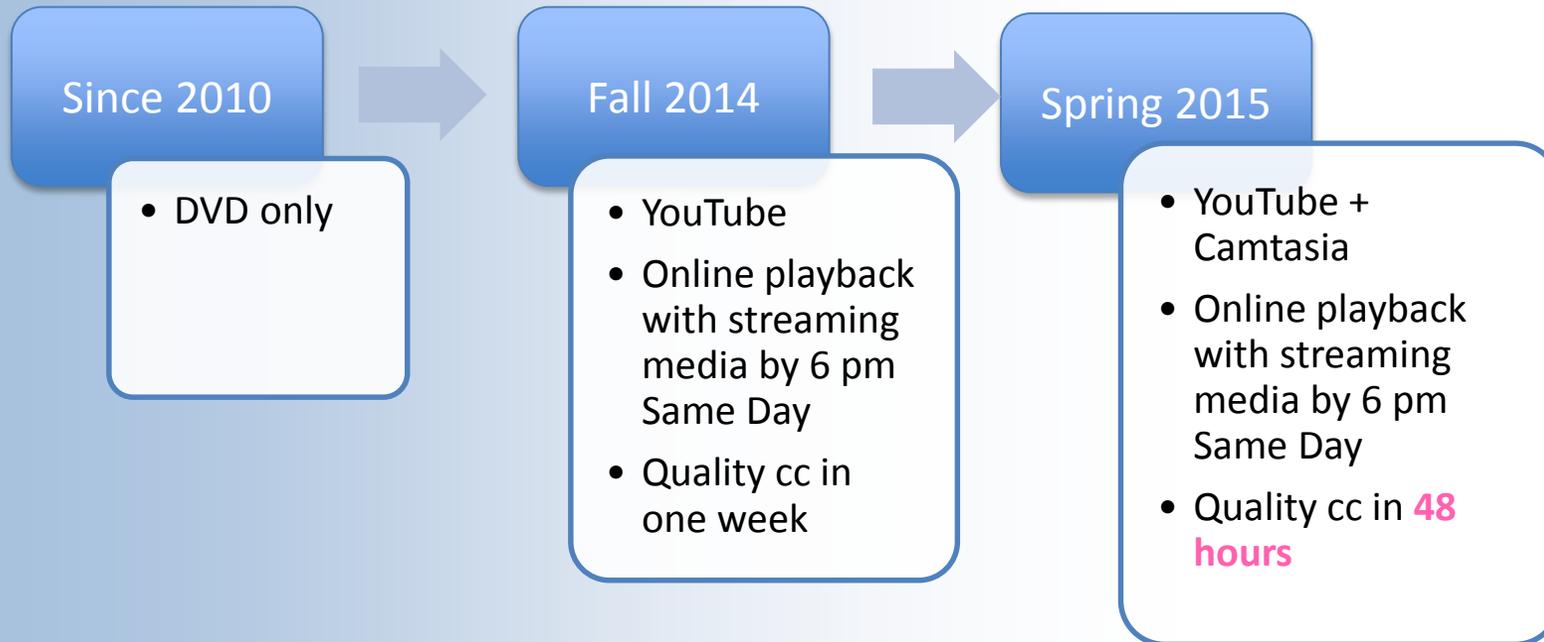
Feeding Many Birds with One Piece of Bread

What if we created a YouTube channel for the Green Talk series and added Closed Captioning ...



The Evolution of the GreenTalk Series

- **The GreenTalk Series – one-hour noon talks every Wednesday for 10 weeks with 400+ engineering students since 2010**

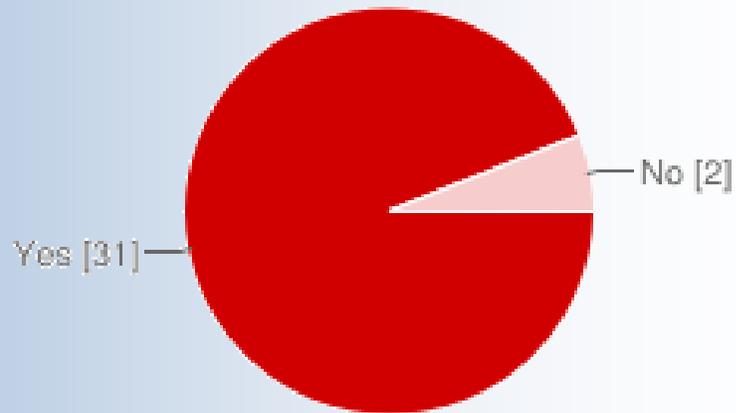


Feeding the Flock?!

- I distributed a name-optional survey electronically to two sections of Engineering 100W (Day and evening sections-both had access to YouTube)
- A total of 33 (out of 48) students responded to the survey (69%)
- The results were surprising...

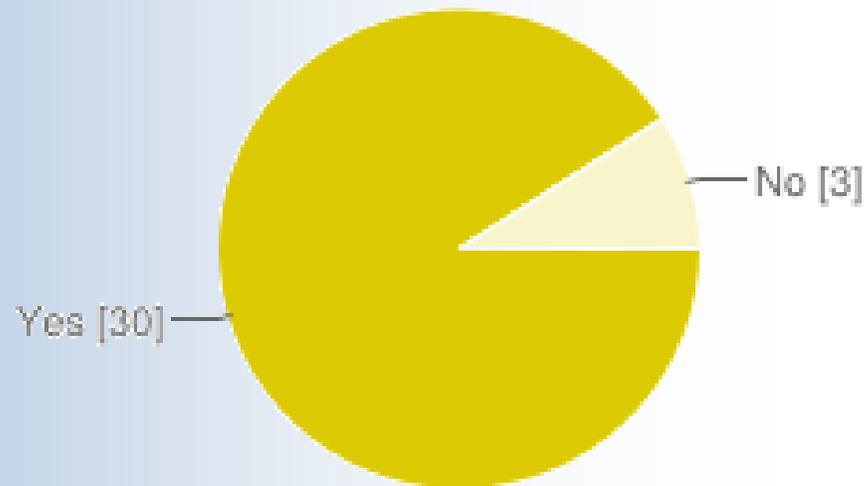
Is Video Option Important?

- **Do you think having the option to view the YouTube video, in addition to the live speaker, is important?**
 - **Yes vs. No = 94% vs. 6%**



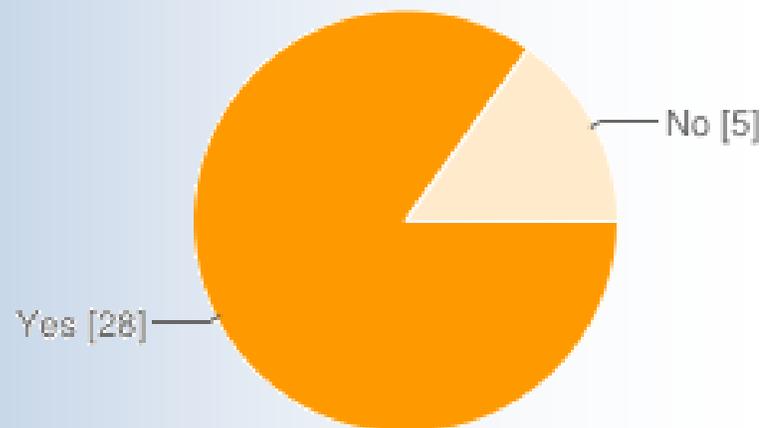
Is Closed Captioning Important?

- **Do you think having Closed Captioning on the video is important?**
 - **Yes = 91%**
 - **No = 9%**



Viewing Preference: Closed Captioned vs. No Caption

- If you were asked to watch the YouTube video, would you choose to view the closed captions?
 - Yes= 85%
 - No = 15%

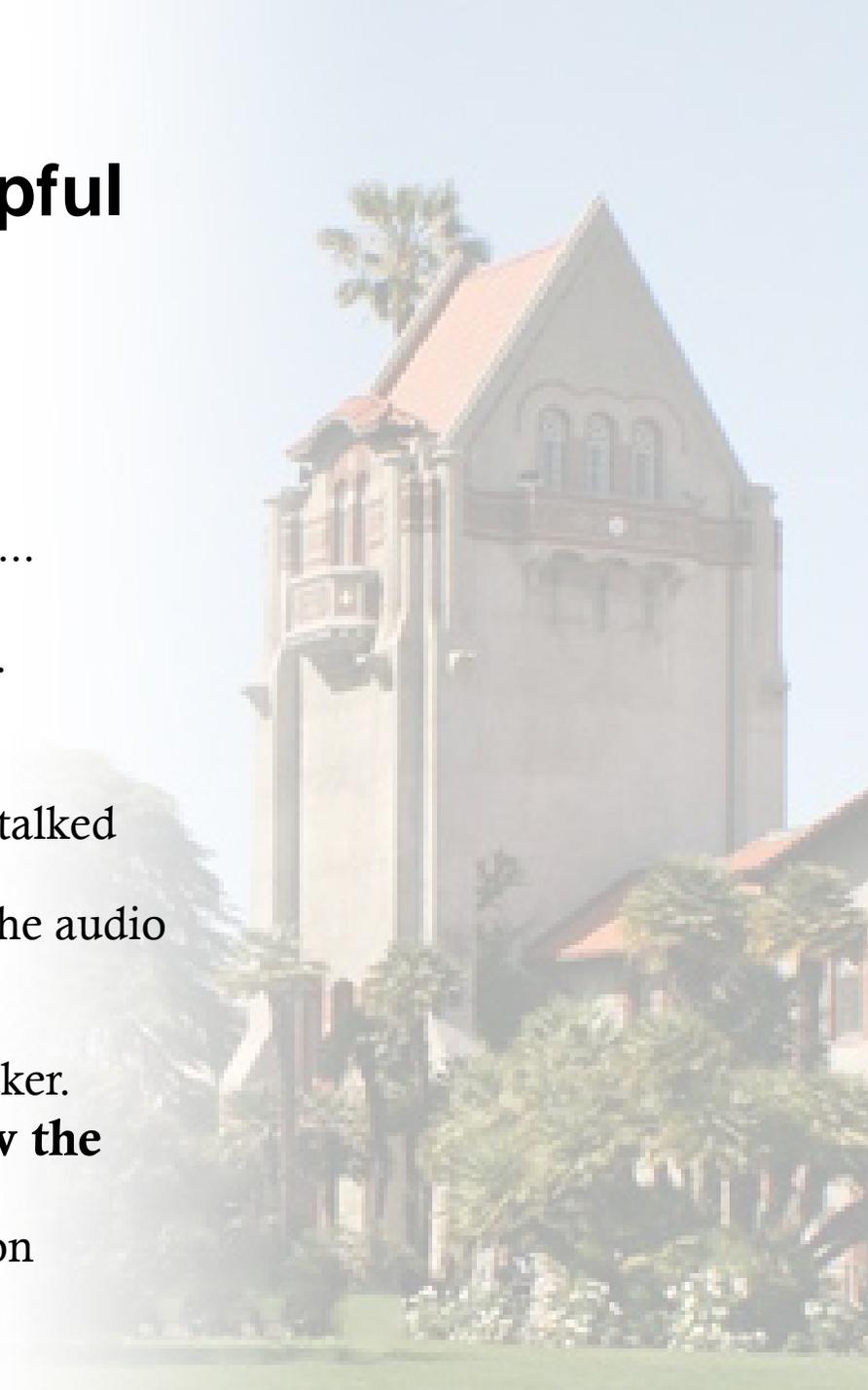


Why Students Find Closed Captions Helpful

Part I

Student comments:

- **Speaker clarity (13)**
 - Sometimes when the speaker doesn't speak closely to the microphone...
 - ...if the person did not speak clearly or too quickly
 - I may have not caught a certain word or sentence and while writing...
 - Sometimes the microphone can have a technical issue...
 - ...some speakers can have an accent
 - Sometimes the speaker is unclear ...was either hard to understand or talked quietly.
 - ...easier to understand the speaker if for some reason you can't hear the audio itself
 - Sometimes the speaker will deliver some technical terms...
 - The captions work great for me to help me better understand the speaker.
- **Better learning of the term and notes, ability to rewind and view the text (13)**
 - Captions allow the viewer to a better understanding of the presentation

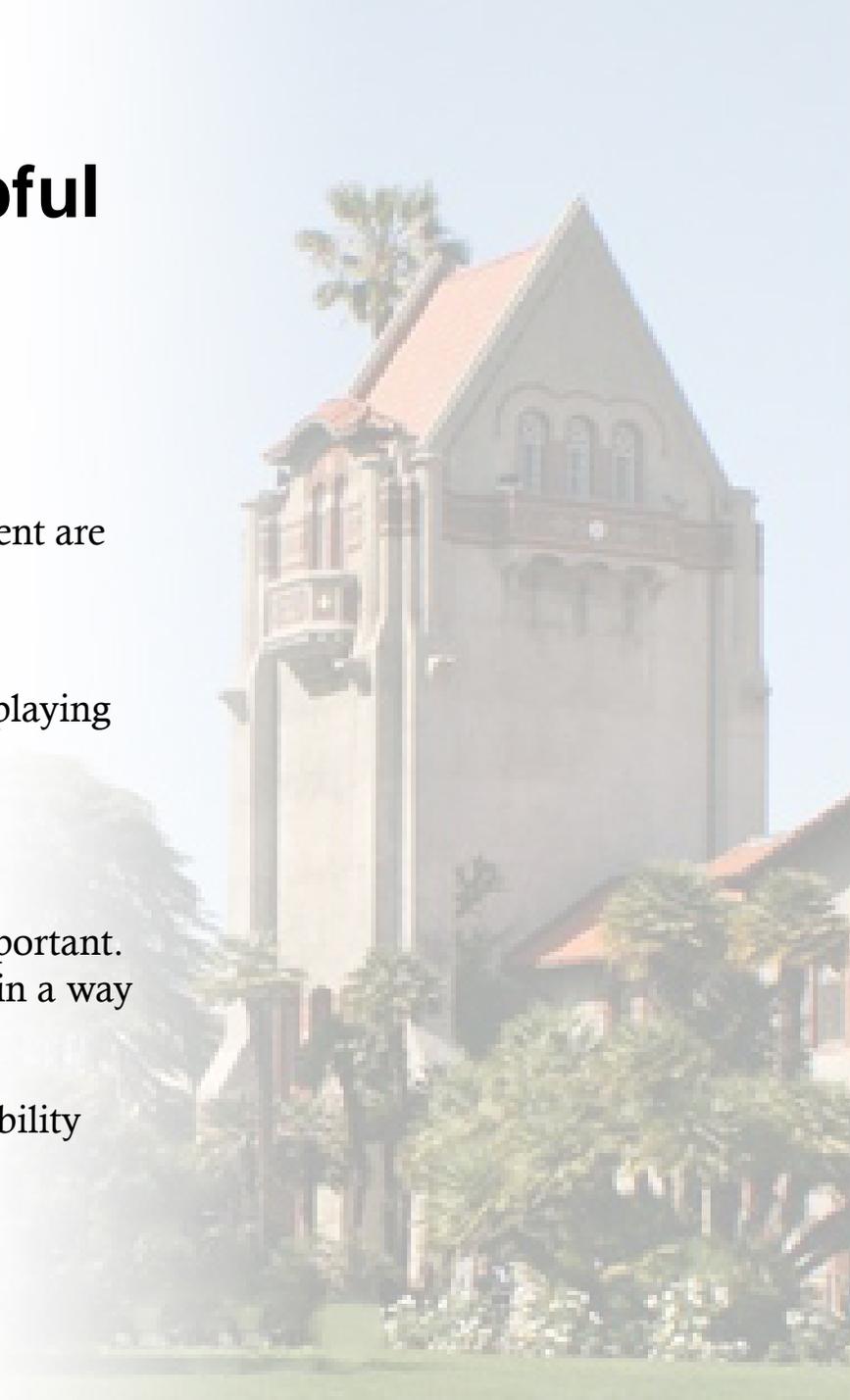


Why Students Find Closed Captions Helpful

Part II

Student comments: (continued)

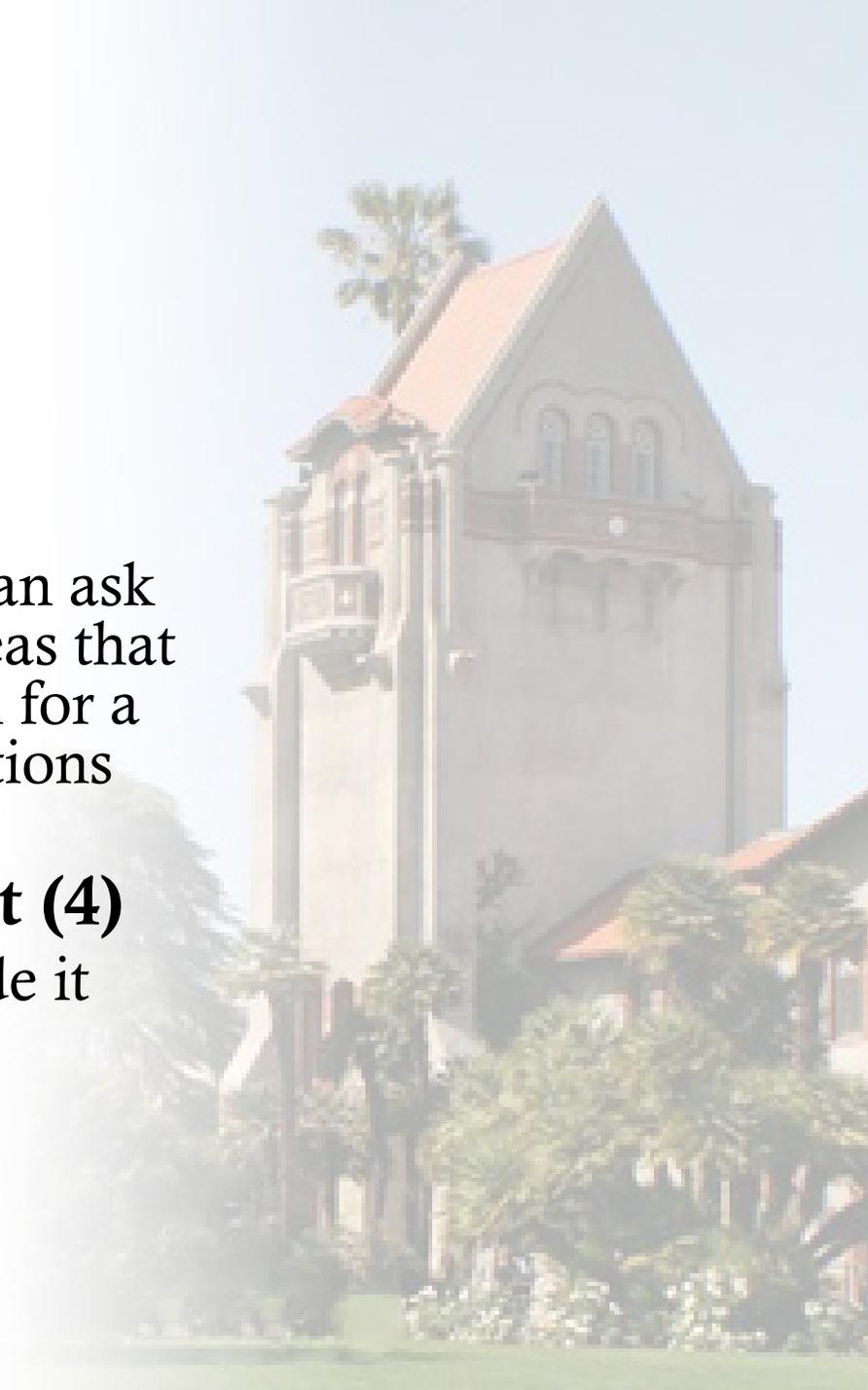
- **Better learning of the term and notes (13)**
 - ...its easier to pause the video and see what the speaker is saying
 - ...videos should be available for the student to review the material specially if student are required to write detailed memorandums.
 - ...having something to refer to and verify what I thought I heard.
 - Some people understand better when they read words rather than listen to others.
 - It's easier to keep track of what's being said...and verify what was being said by replaying the video. Instead I can look at the closed captions.
 - It help for quotations and it show the correct spelling of names and other terms
 - The CC ensures that I will get the right information in my notes...
- **Better comprehension in a noisy environment (11)**
 - Sometime there are noises in the background so being able to read through it is important.
 - In the event that the microphone isn't working too well or the speaker says a word in a way I don't recognize,
 - ...sometimes the audio of the video is not very clear
 - Closed captioning would be useful because there is always the possibility of inaudibility when viewing
- **Hard of hearing problem (3)**
- **English is not my main language (1)**



Why Students Prefer Live-Speaker Presentation

Student comments:

- **Interaction with the speaker (5)**
 - ...more engaging to watch it in person since you can ask questions. ...get to discuss with the speaker the ideas that they presented. ...for the purpose of meeting them for a career opportunity or to ask questions. ...ask questions about the talk.
- **Prefer live speaker, but video option important (4)**
 - Just a preference (1) Watching the live speaker made it mandatory to listen (1) scheduling conflicts (2)
- Won't fall asleep (1)



The Aviary: The Campus Context

- **Students:**
 - **Total enrollment: ~ 31,000**
 - **Registered w/ Accessible Education Center: ~ 1100 (4%)**
- **Faculty:**
 - **Full-time & part-time: ~ 1600**
- **Accessible Technology Initiative Instructional Materials (ATI IM) committee partners:**
 - **Academic Technology**
 - **Accessible Education Center**
 - **Center for Faculty Development and**
 - **Representatives from faculty, College Deans, Library, and the Bookstore**



Assessing Faculty & Student Needs

ATI IM administered two faculty surveys:

- #1 (December 2012) – To document video usage
- #2 (October 2013) – To better understand captioning needs



Portions of Videos Captioned

- **55% or more of In-Class videos are NOT CAPTIONED**
- **62% or more of videos Outside of Class are NOT CAPTIONED**

	Not Captioned	< 25%	~ 50%	> 75%	All	Don't Know	Other
In-Class	72 (55%)	29 (22%)	2 (2%)	7 (5%)	7(5%)	7 (5%)	8(6%)
Outside of Class	82 (62%)	10 (8%)	2 (2%)	2 (2%)	4 (3%)	12 (9%)	20 (15%)

Source Video Format

This question is important to learn what kind of videos we will receive.

- 45% electronic files in Spring 2014 vs. ~ 75% electronic files received in Fall 2014
- 30% DVD in Spring 2014 vs. ~23% DVD in Fall 2014

Source Video Format	Percentage (Spring 2014)	Actual Percentage (Fall 2014)
Electronic file (e.g., m4v, Flash, QuickTime, Window Media, Real Player)	45%	74.7%
DVD	30%	22.8%
Other	14%	1.3%
VHS tape	11%	0
Blu-Ray	1%	0



Copyright Ownership of Videos

This question is important to determine whether we can add captions to the videos.

- **44%: DO NOT have copyright for their videos**
- **23% and more: have copyright or for some**
- **12% and more: not sure, captioned DVD, from Library, etc.**

Copyright Ownership	Percentage
No – for any of it	44%
Yes – for everything I need captioned	23%
Yes for some, no for others	13%
Not sure	12%
Other	9%

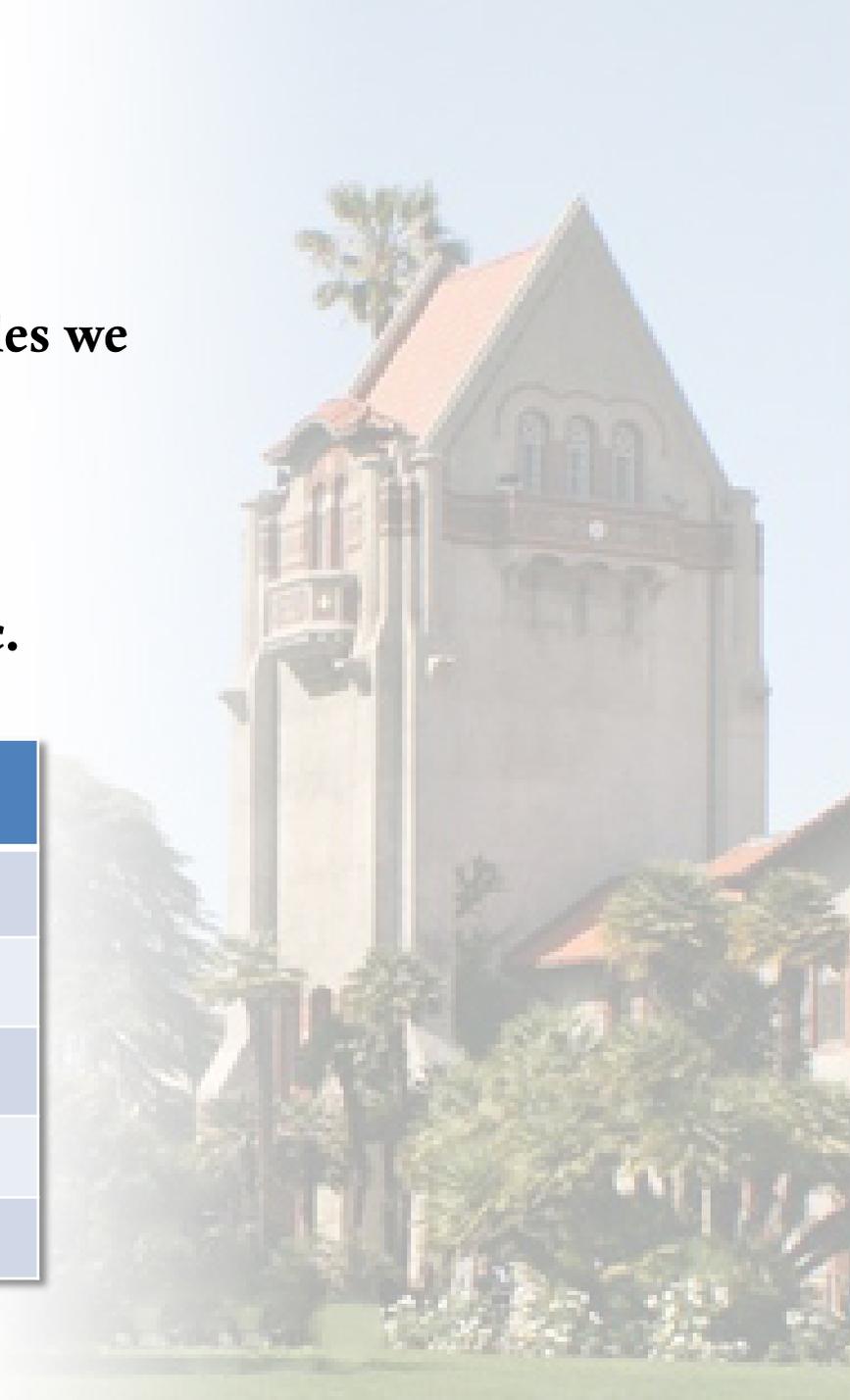


Play-back Methods

This question is important to determine the kind of deliverables we need to produce.

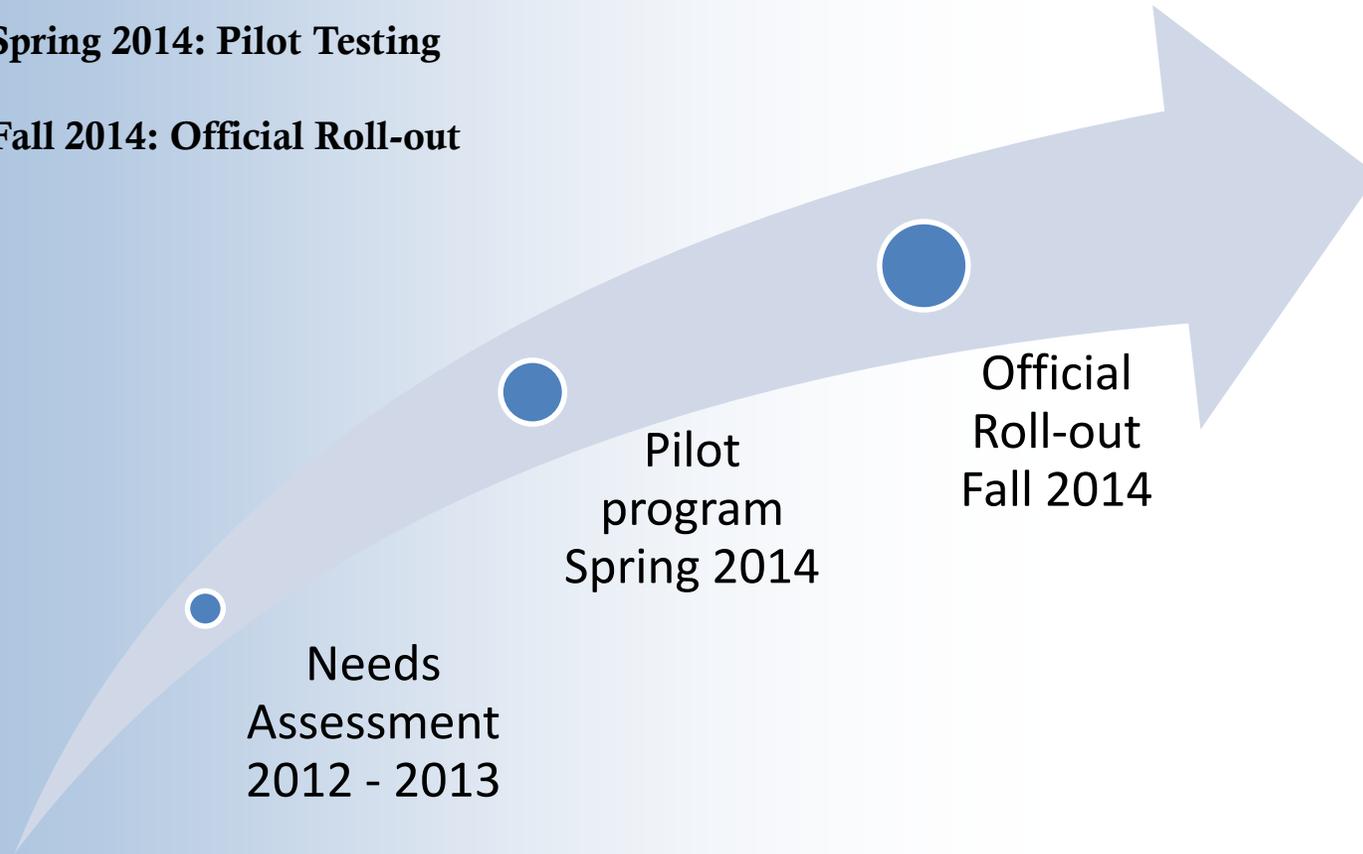
- **37% will be played back from a computer**
- **30% will be streamed and played back online**
- **26% and more are played back via DVD, campus video, etc.**

Play-back Methods	Percentage
Electronic file played from a computer	37%
Streamed online	30%
DVD	26%
Other	8%
Blu-Ray	0%



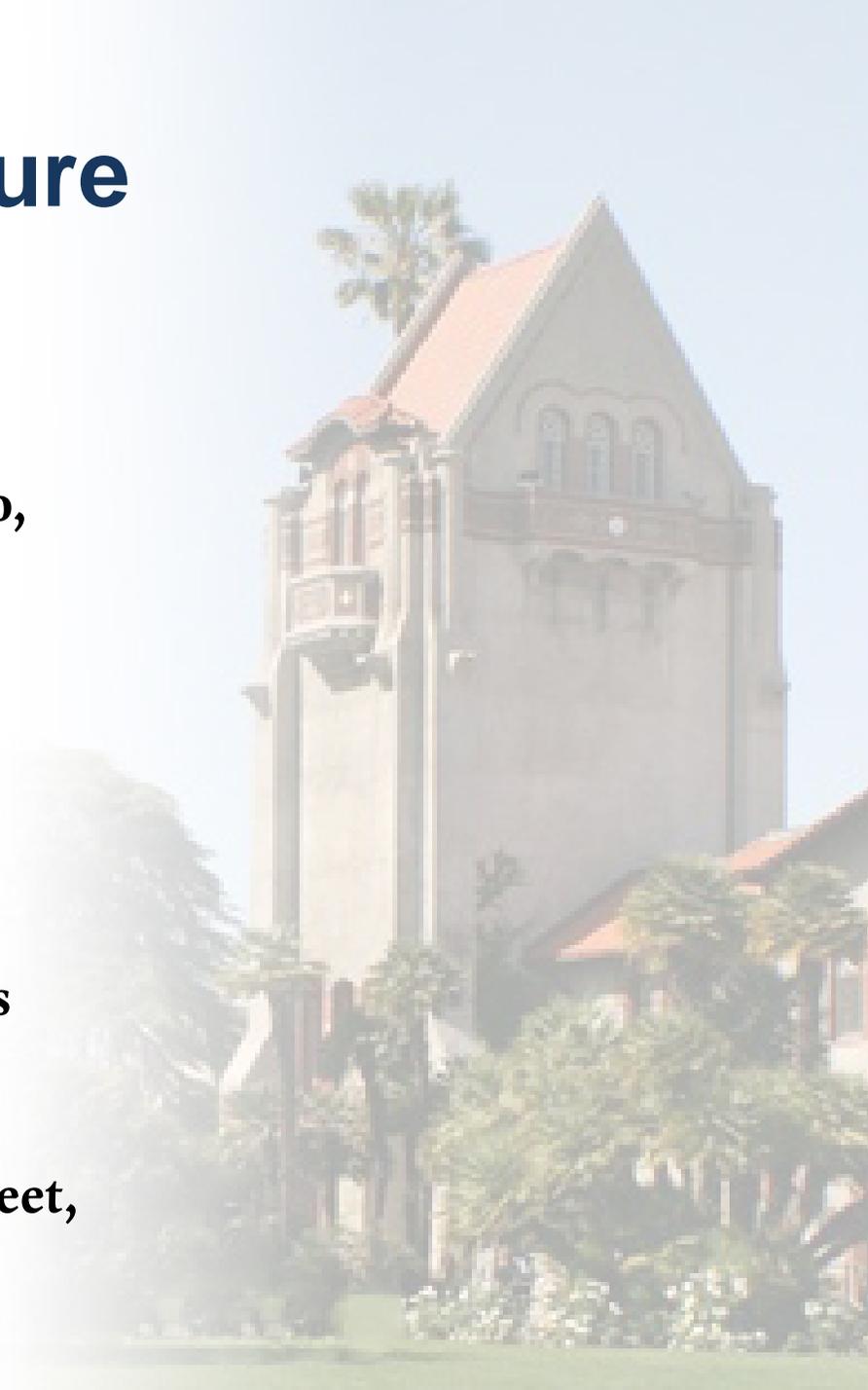
Introducing Captioning Services

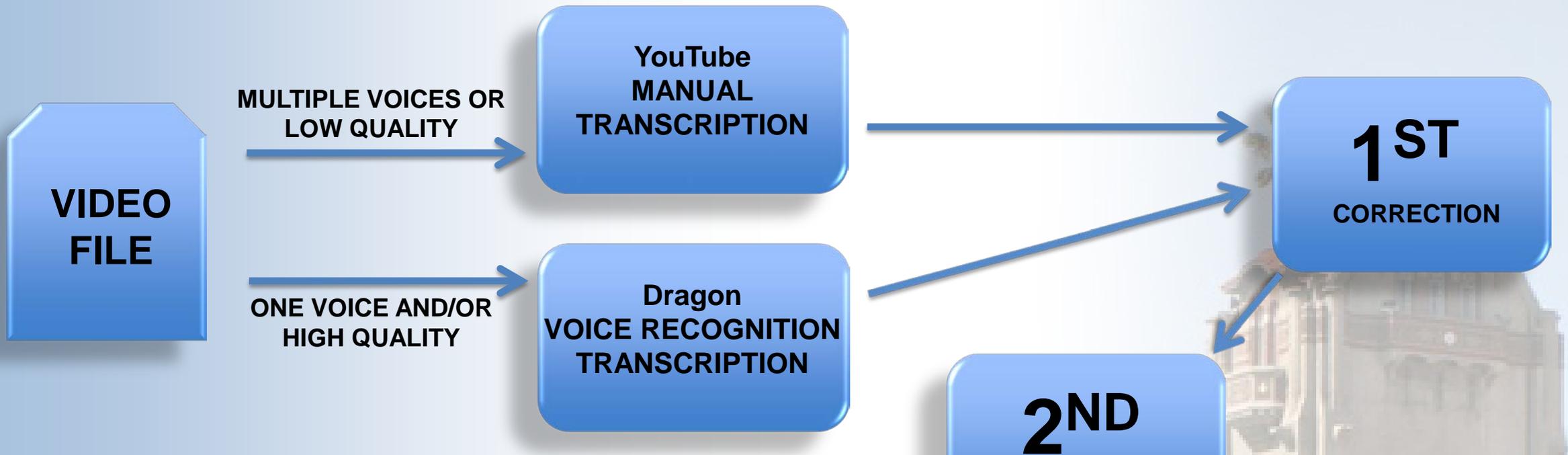
- 2012 ~ 2013: Needs Assessment
- Spring 2014: Pilot Testing
- Fall 2014: Official Roll-out



Captioning Services Infrastructure

- **Hardware and Software:**
 - **Windows and Macs, Dragon Naturally Speaking, MovieCaptioner, AutoSync, YouTube, DVD Studio Pro, etc.**
- **Online Info Hub:**
 - **FAQs, request form via Google form, media dropbox, media library repository, etc.**
- **Resources:**
 - **2 staff working part-time; 4 part-time student assistants**
- **Documentation:**
 - **Job/workflow & software used, master database log sheet, etc.**



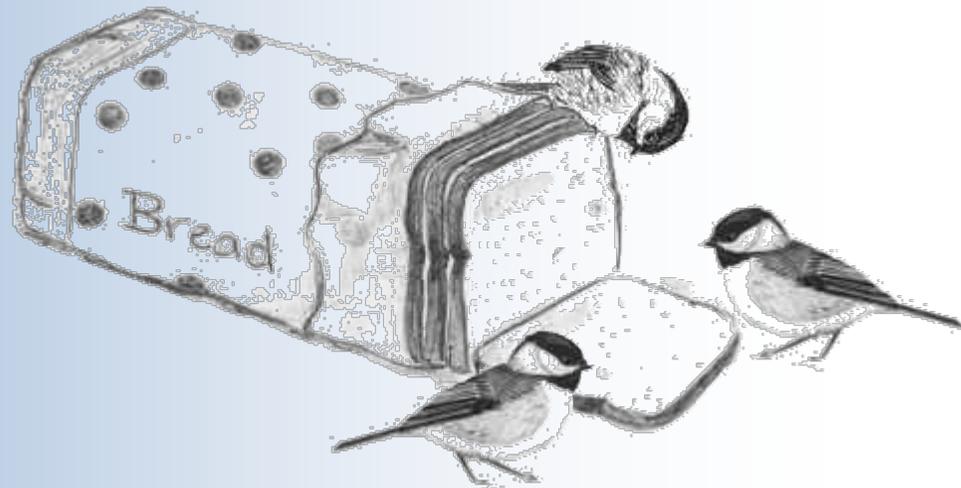


Transcription Workflow



Wrap-up: Take-Away #1

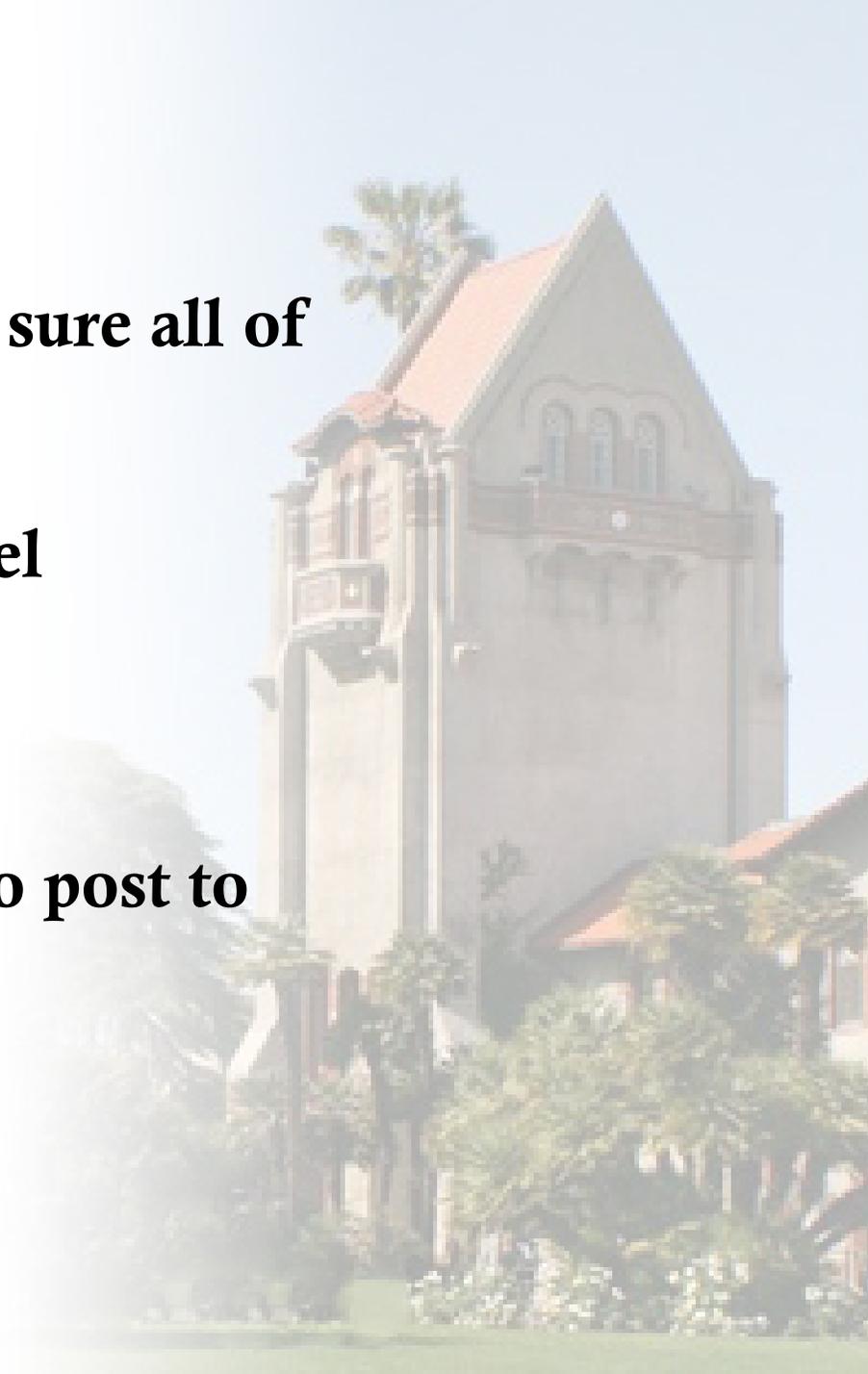
- **Feeding many more students with your universal accessible teaching content**



Wrap-up: Take-Away #2

Plan for appropriate online distribution – make sure all of the birds can find the bread...

- **Create/Monitor an unlisted You Tube channel**
- **Create Google faculty group for distribution**
- **Allow media services and accessibility staff to post to faculty group (streamlines distribution)**
- **Report faculty/student feedback**

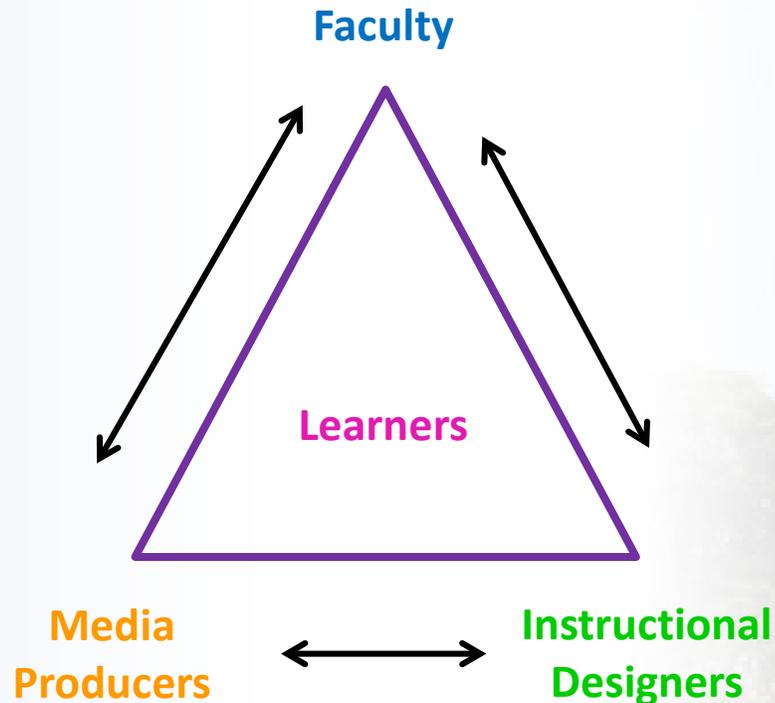


Wrap-up: Take-Away # 3

Team approach:

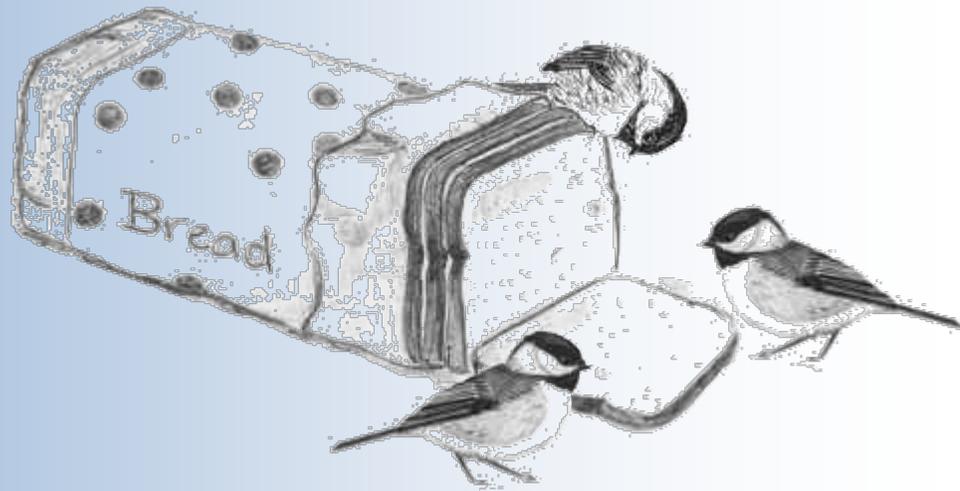
- Include instructional designers, video producers, librarians, and IT specialists as early as possible in planning your course materials

Quality Matters!



Thank you!!

Questions?



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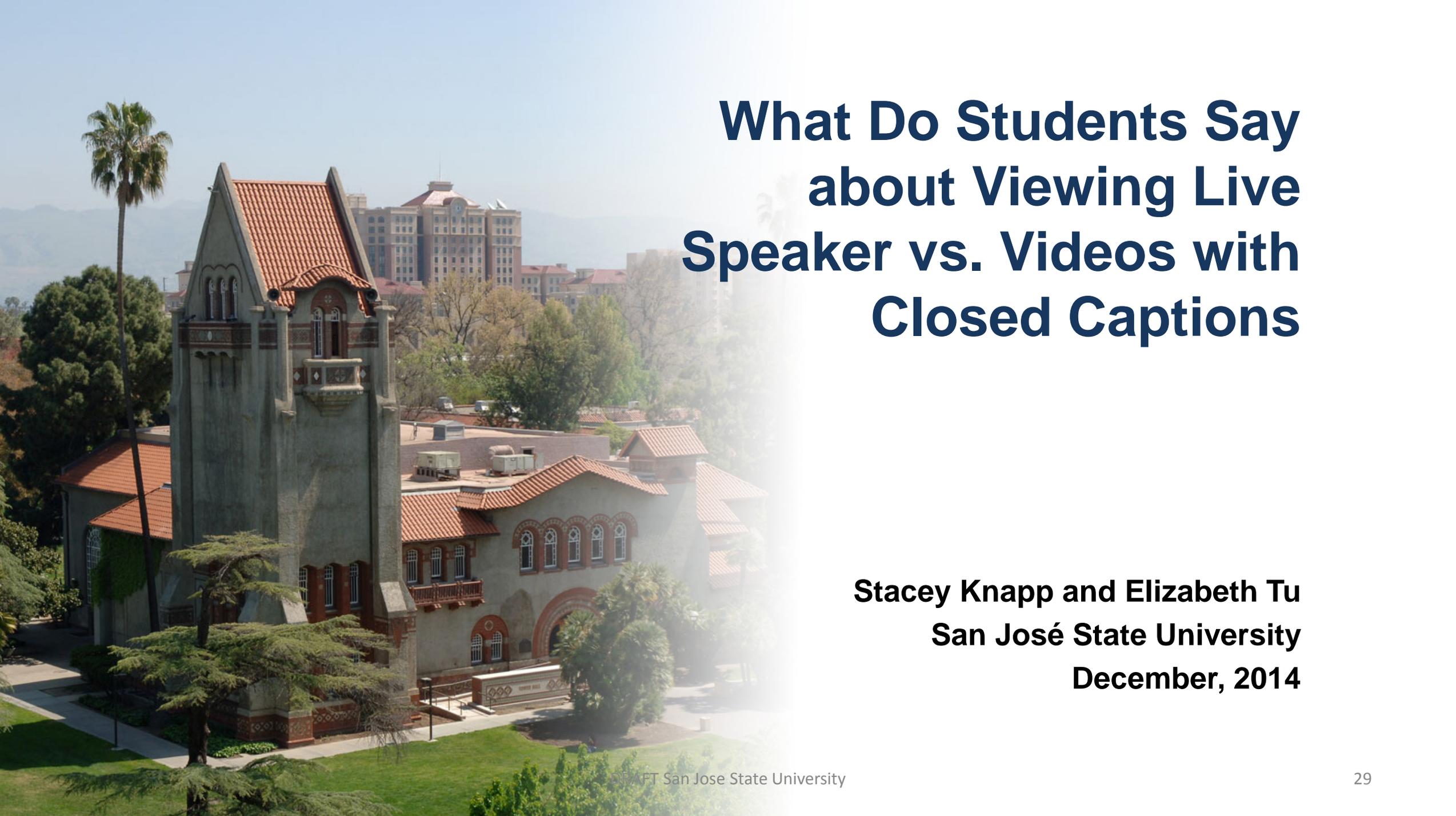
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Back-up Slides



An aerial photograph of San José State University buildings, featuring a prominent tower with a red-tiled roof and a tall palm tree in the foreground. The image is partially obscured by a white gradient on the right side.

What Do Students Say about Viewing Live Speaker vs. Videos with Closed Captions

**Stacey Knapp and Elizabeth Tu
San José State University
December, 2014**

Agenda

- **The Background**
- **Who are the students?**
- **Is video option important?**
- **Viewing preference: closed captioned vs. no captions**
- **Is closed captioning important?**
- **Why students find closed captions helpful**
- **Why students prefer live-speaker presentation**



The Background

- **During the Fall 2014 semester, SJSU's Academic Technology unit (AT) and its Center for Faculty Development (CFD) began offering captioning or transcribing services at no cost to support faculty use of video/audio course materials in their teaching.**
- **A total of 21:53 hours of videos were transcribed by three student assistants to support nine courses, as well as a small number of non-teaching campus events.**
- **This presentation will focus on one of the nine courses, Engineering 100W, and the impact of adding closed captions to the GreenTalk series of 10 sessions.**
- **Each talk consisted of a 1-hour presentation by a live speaker, from 12noon to 1pm, on Wednesdays. These talks were recorded by the campus Media Service.**
- **A closed captioned version of each presentation was made available to students by the following Wednesday at 6 pm.**
- **In early December, near the end of the course, students were asked to share their experiences in viewing live speakers and videos with closed captions.**

Who are the ENGR 100W Students?

- **Their major/departments include:
mechanical engineering, aviation,
computer engineering, material
engineering, electronic engineer, software
engineering, chemical and civil
engineering, International & Extended
Studies**



Questions about Video Usage (Survey #1)

- **Course formats**
 - Face-to-face vs. Hybrid vs. Online
- **How are videos used in their teaching?**
 - In Class vs. Outside of Class
- **What type of video content do faculty use?**
- **What are the reasons for NOT showing/assigning videos in teaching?**
- **What proportion of the videos are captioned?**
 - 55% (in-class) and 62% (outside of class)



Course Formats

- **Over 90% of faculty are teaching at least one class FACE-to-FACE**
- **Over 35% are teaching at least one class in HYBRID format (both in person and online instruction)**
- **Approximately 14% are teaching at least one class fully ONLINE**



Video Usage

- **83% of respondents reported using videos during class time**
- **57% reported assigning videos for viewing outside of class**

So, from the point of view of accessible instructional materials, attending to videos is important.



Type of Video Content

- 77% = Complex scenes (many people, lots of action and conversation, etc.)**
- 67% = “Talking heads” (one person talking, etc.)**
- 63% = Dialogues (interviewer and interviewee, etc.)**
- 59% = Clips with elaborate graphics (photographs, data, etc.)**
- 31% = Clips with few if any words (projections of the night sky, etc.)**



Reasons for Not Showing or Assigning Videos

- 42% = The hardware was too unreliable (e.g., broken, parts missing, etc.)**
- 42% = Couldn't find videos that were educationally worthy**
- 25% = Didn't want to assume students (outside of class) had the equipment/access**
- 24% = Video clips were not captioned/transcribed**
- 18% = Didn't know how to use the hardware in the room**



Reasons for Using Non-captioned Videos

48% = “I didn’t know how to go about getting the materials captioned/transcribed.”

44% = “I assumed students would ask if they needed/wanted captioning/transcription.”

39% = “I decided to use the materials at the last minute so I didn’t have time to have them captioned/transcribed.”

36% = “I didn’t know what my responsibilities were.”

16% = “I was told there were no resources to provide the captioning/transcription.”



Campus Captioning Needs (Survey #2)

Our second survey asked:

- **Minutes of captioning needed**
- **Source video format**
- **Copyright ownership**
- **Play-back preferences**
- **How videos will be shown/assigned?**



Estimating Captioning Needs

**Number of minutes of video
needing captioning per faculty**

Average = 223 minutes (~3.7 hours)

Range = 1 to 2000 minutes



How Videos Are Shown/Assigned

Faculty were asked to check all that apply about how videos will be shown/assigned in their teaching.

Instructional/Pedagogy Methods	Percentage
Play back from a computer in classroom	28%
Upload to Canvas (Learning Management System)	22%
Provide students with links and expect them to find and view the video on their own	15%
Play back from DVD or Blu-Ray in classroom	14%
Upload to a website	11%
Other	10%

Recommendations to Raise Awareness

- **Top-down approach**
 - **Campus Academic Affairs Leadership Team (Provost, Vice Provost, Deans, AVPs)**
 - **Academic Senate**
 - **Curriculum Review Committee**
 - **University Council of Chairs and Directors**
 - **Road shows at colleges or departments**
- **Bottom-up approach**
 - **Direct email to faculty**
 - **Open house**
 - **Accessible video workshops**
 - **Announcements via websites**
- **Other accessibility outreach plan**
 - **Campus-wide study to measure the accessibility status of PDF documents used in teaching**

