

A decorative border resembling a film strip, with a dark gray background and white rectangular sprocket holes along the top and bottom edges.

Video Metadata Viewer

Mackenzie Leake

CS448B Progress Presentation

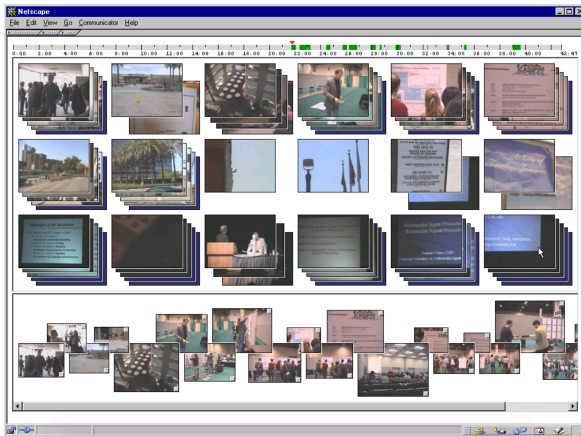
May 23, 2016

Editing videos is challenging.



Prior Work

Video browsing, summarization, and editing



Hitchcock (Girgensohn et al., 2000)




Semantic Storyboards (Goldman et al., 2006)

A lightsaber | SEARCH | **B** DOCUMENTS - MOVIES -

C Search Results
Star Wars: Episode IV - A New Hope
Luke Skywalker joins forces with a Jedi Knight, a cocky pilot, a wookiee and two droids to save the universe from the Empire (1977).
It's your father's **lightsaber** captions
Luke is once again practicing with the **lightsaber**.
script action
Your father's **lightsaber** This is the weapon of a Jedi Knight. Not as clumsy or as random as a blaster. **Ben** Obi-wan
Contrary to his uncle's statements, Luke learns that his father Anakin Skywalker fought alongside Obi-Wan as a Jedi Knight before he was betrayed and killed by Vader, Obi-Wan's former pupil who turned to the "dark side of the Force", and gives Luke his father's **lightsaber**.
summary
Star Wars: Episode V - The Empire Strikes Back
Luke Skywalker takes Jedi training with Yoda, while his friends are pursued by Darth Vader as part of his plan to capture Luke. (1980)

D Summary
The only "Kenobi" Luke knows of is an old hermit named Ben Kenobi who lives in the "swampy hills".
The next morning, upon finding R2-D2 after he escapes to seek Obi-Wan, Luke meets Ben Kenobi, revealing himself to be Obi-Wan.
Obi-Wan tells Luke of his days as a Jedi Knight, one of a faction of former galactic peacekeepers who were wiped out by the Empire.
Contrary to his uncle's statements, Luke learns that his father Anakin Skywalker fought alongside Obi-Wan as a Jedi Knight before he was betrayed and killed by Vader, Obi-Wan's former pupil who turned to the "dark side of the Force", and gives Luke his father's **lightsaber**.
Obi-Wan views Leia's complete message in which she begs Obi-Wan to take the Death Star plans to her home planet of Alderaan for her father to retrieve and analyze.
He then asks Luke to accompany him and learn the ways of the Force.
Luke initially refuses, but changes his mind after discovering that Imperial stormtroopers have destroyed his home and killed his aunt and uncle in search of C-3PO and R2-D2.
Obi-Wan and Luke hire smuggler Han Solo and his Wookiee First mate Chewbacca (Peter Mayhew to transport them on their ship, the Millennium Falcon.

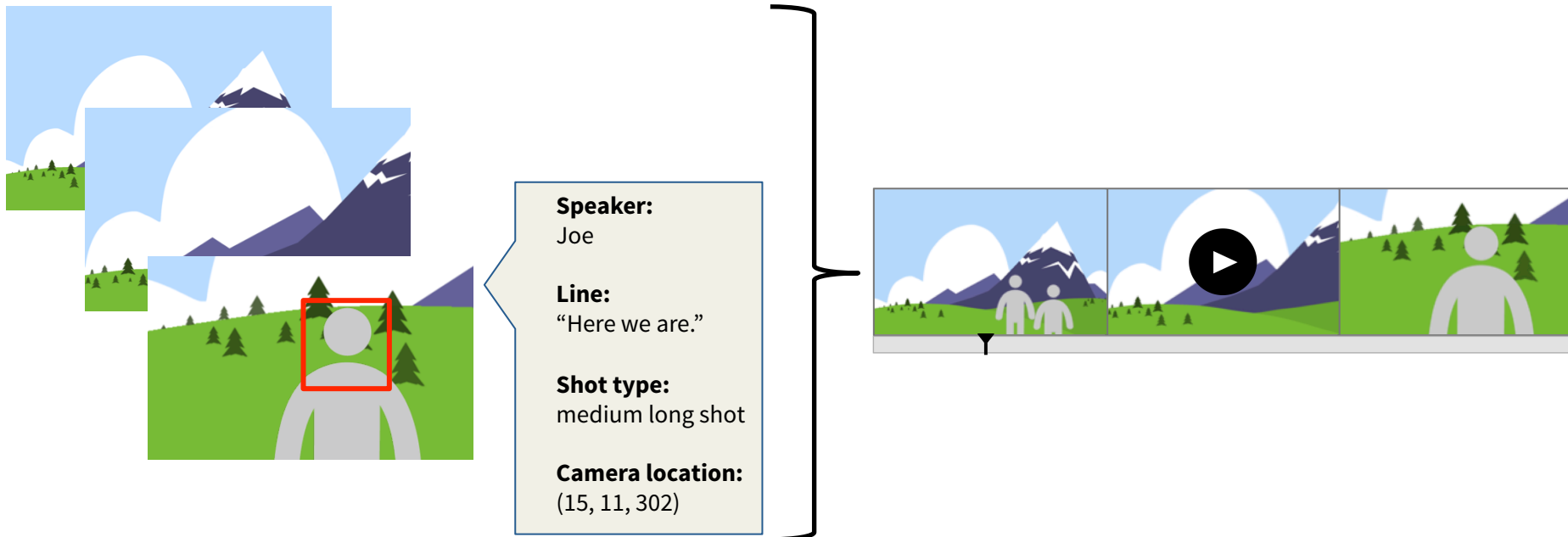
E Script
Ben: If you'll not be needing me, I'll close down for awhile.
LUKE: Sure, go ahead.
Ben hands Luke the saber.
LUKE: What is it?
BEN: Your father's **lightsaber**. This is the weapon of a Jedi Knight. Not so clumsy or so random as a blaster.
LUKE: Luke parries a burst on the hands. A King beam shoots out about four feet and flicks there. The light-pilots across the ceiling.
BEN: An elegant weapon for a more civilized time. For over a thousand generations the Jedi Knights were the guardians of peace and justice in the Old Republic, before the dark times, before the Empire.
LUKE: Luke hasn't really been listening.
LUKE: How did my father die?

F Movie


G Captions
It's your father's **lightsaber**.
This is the weapon of a Jedi knight.
Not as clumsy or random as a blaster.
An elegant weapon for a more civilized age.
For over a thousand generations the Jedi knights were the guardians

SceneSkim (Pavel et al., 2015)

How can we visualize video metadata to support the editing process?



Search bar with magnifying glass icon and navigation icons (back, forward, refresh).

Clip Metadata Browser

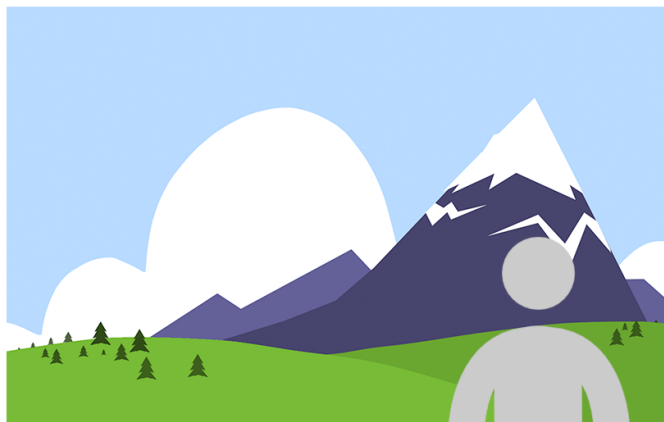
Upload Thumbnail

Upload Transcript

Upload Video

Metadata Available

- Emotion
- Length
- Speaker
- Shot type



Transcript

- We're struggling to climb up the awesome mountain
 - Then we made our ascent

Emotion



Length



Speaker: Bob



CU



MCU



MS



MLS



LS

Shot type: MLS

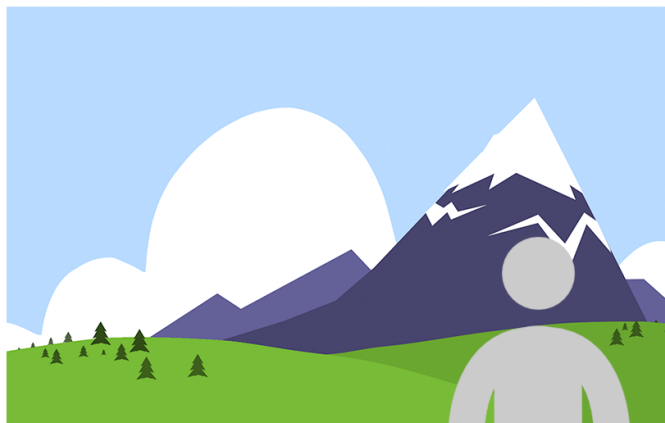
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Upload data

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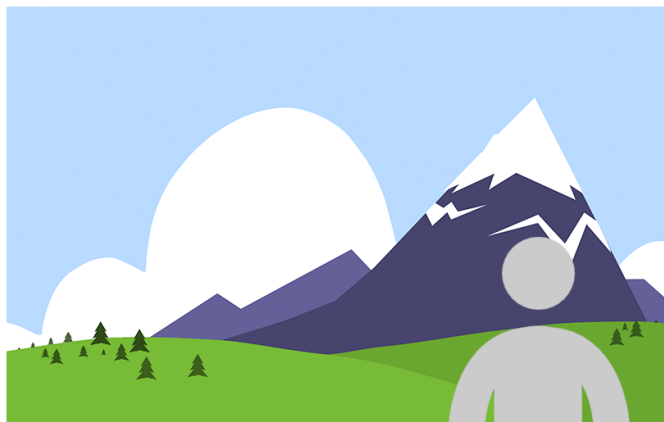
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Select available data

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Search bar with magnifying glass icon

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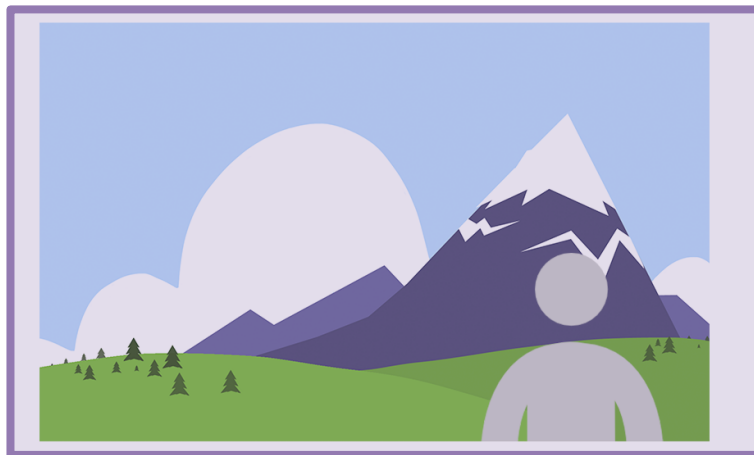
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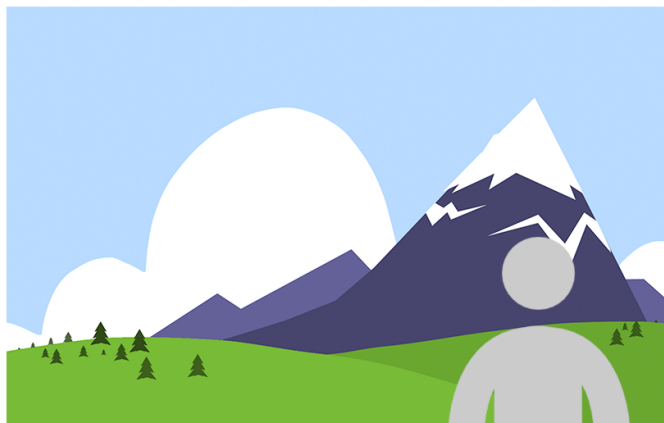
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Shot type: MLS

Clip information

Search bar with magnifying glass icon

Clip Metadata Browser

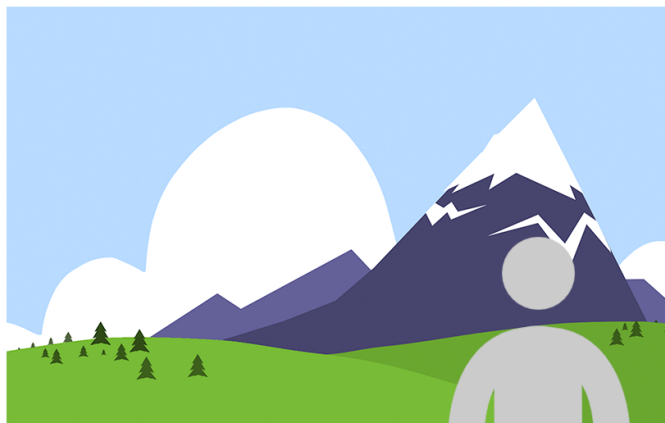
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MLS



LS

Shot type: MLS

Milestones

- Current progress
 - Webpage with upload capabilities
 - Two sets of videos with corresponding metadata
- Next steps
 - Data handling (by May 26)
 - Format and parse JSON
 - Pass data into functions to build sub-visualizations
 - Design sub-visualizations (by June 1)
 - Scrolling transcript browser
 - Emotion score viewer
 - Line length bar
 - Speaker thumbnail box
 - Shot type selection

Questions

- What other information would be helpful to present for each video?
- For the emotion element:



- How do I connect the size and color of a rectangle based upon the text?
- Is there a more effective way to display the emotion score for each word?