Video Search & Metadata

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Getty Images
What I will cover

Search behavior:
• What searchers are doing
• How searching for video is different from/similar to searching for photos

Metadata:
• What is required (by Getty)
• How video metadata is different/similar to photos metadata
My sources

People at Getty
- Customer Insights Team (customer interviews)
- Picture Researchers (expert searchers)
- Content Operations (metadata and ingestion)
- Search Data Strategy (keywording)
- Video Product Manager (product roadmap)

Site analytics data
Video Search

Types of projects – what are searchers trying to achieve?

Search patterns – how do they search?

Search terms - what do they search for?

How is it different than search for photos?
Video Search

Project types – what are they trying to achieve?

**Documentary**
- Telling a story
- Looking for archival
- Looking for footage and stills

**Television**
- Content must be released
- Trying to get shots of location/backgrounds to establish the scene, therefore long shots, establishing shots
- Everything has to be 1080p at 23.98 Frames Per Second

**Movies**
- Resolution and frame rate are set by the director
- Want highest resolution possible (4k)
- Need to know clip length, resolution, master format

**Advertising**
- Often very specific request
- Buy stock for what is too expensive to shoot themselves
- Use stock to fill in scenes
Video Search

Patterns – how do they search?

Type in terms
Use broader terms because they have learned specific ones often return few or no results.

Apply filters
Set filters around resolution and other parameters i.e. no people, etc.

Review results
Look at results and mouse over potential selection to determine if the clip will fulfill what they need.

Click on a clip for additional information
Contact rep for assistance

Search with new or additional terms
Video Search
Patterns – how do they search?

Summary:

Needs differ a bit based on the type of project.

Similar general pattern to photos search:

• Start broad
• Limited use of filters
• Succeed, refine or start over, or give up
Video Metadata

Next topic: metadata that supports search

But first, a blurry distinction:

1. Information about the file
   - format, resolution, clip length, etc.

2. Information about what the image depicts
   - people, places, things, actions, locations, concepts
   - technique: panning, aerial, hand held, etc.
Video Metadata
Information about the file

Shared with photos

- Caption
- ImageID
- License Type
- Contributor (Filmmaker)
- Create Date
- Description (Caption)
- Location (city/state/country)
- IPTC Subject(s)
- Releases
- Contributor
- etc.
Video Metadata

Information about the file

Different from photos

- Shot speed
- Clip length (hh:mm:ss)
- Audio (yes or no)

Originally shot on

- Media Format (16mm OCN, Betacam SP PAL, HD D5, etc)
- Frame Rate (12, 15, 23.98, 24, etc.)
- Frame Size (4096x2160, etc.)
- Interlaced or Progressive

Submitted

- Media Format (QuickTime - Apple ProRes 422 (HQ), etc.)
- Frame Rate (12, 15, 23.98, 24, etc.)
- **Frame Size** (1920x1080, etc.)
- Progressive
Video Search

How is metadata about the file used in search?

**Critical metadata for video searchers** (based on interviews):

**Primary**

- **Resolution / Format** (HD/SD)
  - More granular options even better, e.g. 480p, 720p, 1080i, 4K
- **Frame rate**
- **Clip length**

✓ Need to filter on these, and see the information for each asset.
✓ Want to know these as soon as possible in their search results.

**Then**

- **Camera movements / point of view**
- **Shot speed**
- **Aspect ratio**
- **Original format**
Video Search

How is metadata about the file used in search?

Conclusion - room for improvement in video search:

Video sites should make Resolution, Frame Rate, and Clip Length searchable and clearly displayed for each clip.

Getty, for example, has a filter for HD vs SD, but no filter for Frame Rate or Clip Length.

Information is displayed on the Asset Detail Page, but not called out particularly.
Video Metadata
Information about what is depicted, aka Keywords

Getty has a single keywording guideline covering for both photos and video

• People, actions, locations, settings, objects, etc.
• Over-keywording and under-keywording is addressed here. Video not called out as different in this regard.

A small technical addendum covers aspects relevant only to Video

• Technique/compositional terms: crane shot, dolly shot, panning, rack focus, zoom in, lock down, loopable, etc.
• Audio available
• Clip Length as a keyword, in ranges, e.g. less than 10 seconds, 10 seconds or greater, etc
Video Metadata
Information about what is depicted, aka Keywords

How are multiple subjects within a clip handled?

Getty keywords apply to the entire clip, not individual sections
  • It is possible, and probably ideal, to keyword specific segments of a single clip, keeping track of start/stop times.
  • This is more effort than Getty has deemed to be worth it for search.

The longer the clip, the more difficult it is to determine whether something depicted is significant
  • Creative clips tend to be short and single subject.
  • News/sports/entertainment/archival clips can get more complicated, with multiple subjects in one clip.
Video Metadata
Information about what is depicted, aka Keywords

Summary:
Not much different from photos, regarding how to describe what a clip depicts.
Video Search

How are keywords used in search?

Top 10 search terms during 2013
(very similar to top terms for photos)

<table>
<thead>
<tr>
<th>Creative &amp; Combined</th>
<th>Editorial only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunrise</td>
<td>Jennifer Lawrence</td>
</tr>
<tr>
<td>New York City</td>
<td>Tom Hiddleston</td>
</tr>
<tr>
<td>Clouds</td>
<td>Cannes</td>
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<tr>
<td>Fireworks</td>
<td>One Direction</td>
</tr>
<tr>
<td>Concert</td>
<td>Selena Gomez</td>
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<tr>
<td>Soccer</td>
<td>Kate Middleton</td>
</tr>
<tr>
<td>Beach</td>
<td>Justin Bieber</td>
</tr>
<tr>
<td>Family</td>
<td>Taylor Swift</td>
</tr>
<tr>
<td>Fashion</td>
<td>Justin Bieber</td>
</tr>
<tr>
<td>Dog</td>
<td>Rihanna</td>
</tr>
</tbody>
</table>
# Video Search

## How are keywords used in search?

Categories of search terms: Video vs Photos (very similar)

<table>
<thead>
<tr>
<th>Creative Category</th>
<th>Video – Creative &amp; Combined</th>
<th>Stills - Creative</th>
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</thead>
<tbody>
<tr>
<td>Man Made</td>
<td>27%</td>
<td>30%</td>
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<tr>
<td>Concepts</td>
<td>14%</td>
<td>17%</td>
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<tr>
<td>People</td>
<td>7%</td>
<td>8%</td>
</tr>
<tr>
<td>Natural World</td>
<td>10%</td>
<td>8%</td>
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<tr>
<td>Activities</td>
<td>5.5%</td>
<td>5.5%</td>
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<tr>
<td>Description</td>
<td>3%</td>
<td>5%</td>
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<tr>
<td>Locations</td>
<td>10%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Food and Drink</td>
<td>2%</td>
<td>4.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Editorial Category</th>
<th>Video – Editorial</th>
<th>Stills - Editorial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of person</td>
<td>47%</td>
<td>56%</td>
</tr>
<tr>
<td>Man made</td>
<td>19%</td>
<td>13%</td>
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<tr>
<td>Locations</td>
<td>8%</td>
<td>7%</td>
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<tr>
<td>Concepts</td>
<td>7%</td>
<td>10%</td>
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<tr>
<td>Technical</td>
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<td>1%</td>
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<tr>
<td>Natural world</td>
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<td>2%</td>
</tr>
<tr>
<td>People</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Activity</td>
<td>1%</td>
<td>.5%</td>
</tr>
</tbody>
</table>
Video Search

How are keywords used in search?

Searches for video-specific terms
Number indicates rank order, during one year of queries

- time lapse (33)
- slow motion (170)
- lockdown (5,059)
- rack focus (9,564)
- loopable (12,145)
- panning (12,237)
- zoom in (13,147)
- dolly shot (25,154)
- crane shot (67,426)

Conclusion: not searched on much
Video Search

How are keywords used in search?

Summary:
Not very different from photos.
Summary

Significant similarities to photos search/metadata

• Search patterns
• Keywords that describe what is depicted in the clip
• Search terms used
  • Limited use of video-specific terms

Significant differences re: video-specific metadata

• Critical to finding usable content
  • Resolution
  • Frame rate
  • Clip length
• Video search should cater to these differences