Automating Video Descriptions for Quick Publication

Vidrovr AMI for Media Publication

The Challenge:
The Associated Press provides raw content, video and writing to over 10,000 customers around the world. This makes them one of the most prolific and important sources of information for every human being. It takes an army of editors to make sure the 1000’s of hours of video content that they send to customers is properly annotated and well described so that their customers can quickly make use of those videos in their television broadcasts and online news articles. Typically, videos are supplied to customers consisting of many “shots”, which are one visually distinct section of video. Customers then use one of more of the “shots” when they are producing a story. The AP team has to ensure each shot is properly described with a phrase like, “Jen Psaki, White House Press Secretary arriving at the podium for a briefing”. This is an incredibly time-consuming process, and they would like to alleviate this work for their editors so they can undertake more creative tasks.

Key Benefits:
- Improves the speed at which videos can be published and received by customers
- Alleviates the manual work required by editors in the publication process

The Vidrovr Solution:
In conjunction with Limecraft and the IBC, Vidrovr developed an “Automated shortlisting” solution that alleviates the pain for editors of manually describing each of the shots within a video that they publish to their customers. When the raw video is sent to Vidrovr, Vidrovr AMI extracts timestamps for when each shot starts and ends and a detailed description of the particular shot timeframe. The Vidrovr AMI shotlist action then provided the following information that the AP team published alongside the raw video asset with their clients:

- Exact start and end frame for a given shot
- The political or popular figure(s) that are appearing in a shot
- The language being spoken in a shot
- A human readable sentence highlighting the figures, setting and any actions that are taking place.
- Additional knowledge graph powered person and entity titling such as “Jen Psaki”: “White House Press Secretary”

Example shot captions that can be created are seen below:

- “Jen Psaki, White House Press Secretary approaching podium at briefing”
- “Donald Trump, Former U.S. President, entering into vehicle and leaving”
- “SOUNDBYTE (ENGLISH): Joe Biden, U.S. President”

As this was a man in the middle system built to augment editors’ workflows. The AP team inspected the shot lists generated by Vidrovr, and proceeded to correct or change any issues. With each correction, the Vidrovr AMI system understood the correction and tweaked the automated shot captioning model creating a feedback loop that leads to improved performance.