“Someone walks in front of people”
Input:  

Someone speaks to people.
Someone walks in front of people.

Applications
- video indexing, navigation and retrieval
- automatic search
- human-robot interaction
- …

Challenges
- Open domain
- Diverse set of objects, actions and scenes
- Interaction of different objects
- Fine motion details
- Lack of context
Elrond addresses the council.

Frodo walks towards the stone plinth.
Enriching Video Captions With Contextual Text

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Presentation Overview

- Dataset
  - LSMDC-Context
  - News Video
- Model Overview
- Results
Dataset

- LSMDC
  - Video clips from 202 movies (118k / 4.8s)
  - Audio Descriptions (AD) & movie script sentences as ground-truth captions

- LSMDC-Context
  - Augment sub-split with movie script as context and AD-captions / movie script sentences as ground-truth
  - Movie subtitles used for alignment
  - AD-Captions with Context (23 movies / 14k clips)
  - Script-Captions with Context (26 movies / 18k clips)
Dataset

- News video (KaVD)
  - News videos from the AFP YouTube channel
  - Descriptions as ground-truth captions
  - Topically related news documents as context
  - 2.8k video clips (avg. duration of 52.5s)
Approach
Encoder-Decoder Network

Pointer Generator Network
Examples & Results
Brazil's highest court has ordered the resignation of President Michel Temer, who is accused of driving a former senator colleague hush money to cover up alleged corruption.

Hundreds of protesters block Sao Paulo's iconic Paulista Avenue calling for the impeachment of President Michel Temer after a leaked conversation suggested he wanted to pay a bribe to cover up alleged corruption.
Conclusion

- Video captioning model which can handle additional context
  - mine relevant knowledge (names, locations,...)
  - directly operate on text data (not additional steps or tools)

- New subsplits of LSMDC dataset
  - augmented with movie script scenes as context

- Competitive results on News Video dataset
“Frodo walks towards the stone plinth”