

“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**

Input:



Someone speaks to people.

Someone walks in front of people.

Input:



+



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

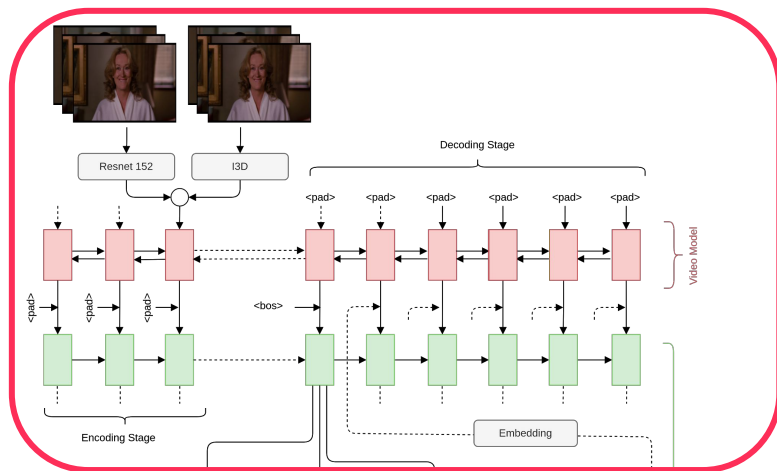
Dataset

- 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)

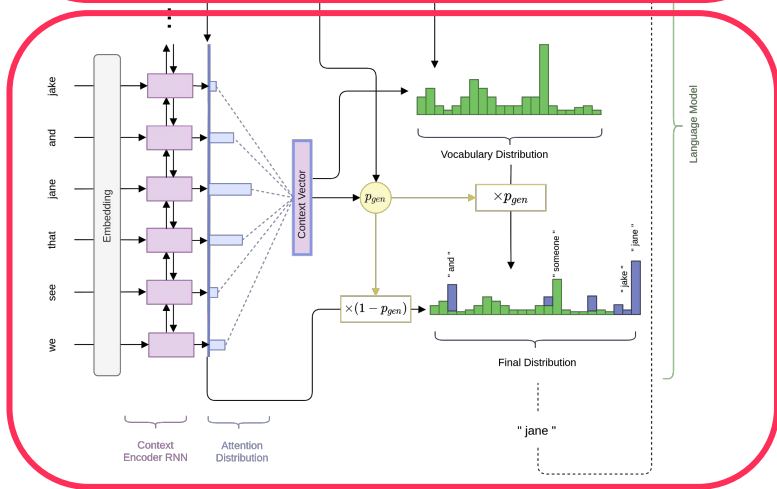
Dataset

- 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 opened an investigation into president michel temer on date , after one of the country 's biggest newspapers accused him of paying a former senate colleague hush money . temer told reporters he will not resign shortly after state-run news agency agencia brasil reported the news of the supreme court inquiry . during a brief statement from planalto presidential palace , temer said he `` never authorized payments to anyone to stay quiet , '' the prominent daily newspaper o globo reported on date that a meat producer had recorded the president giving the go-ahead to bribe cunha to `` keep quiet '' while he was in jail . temer 's office released a statement denying that he had authorized any bribes to be paid to imprisoned former house speaker eduardo cunha in exchange for his silence regarding a long-running corruption investigation . temer , # , said he will fight to prove his innocence . `` i know what i did , and i know my actions were right , '' he said . `` i demand a full and quick investigation to clear up (the situation) for the brazilian people . '' according to the o globo report , the information was revealed when the owners of the meat and chicken conglomerate jbs testified before the supreme court behind closed doors as part of a massive corruption investigation , dubbed `` operation car wash , '' which implicates former and current politicians . the corruption probe has led to the imprisonment of some of brazil 's most prominent politicians and business owners . more than # people have been charged with bribery and money laundering during operation car wash . crowds gathered date evening near rio de janeiro 's candelaria church , in the city center , carrying signs and flags demanding temer 's ouster . riot police surrounded the crowd , which filled several city blocks . as night fell , some protesters threw molotov cocktails at police , who fired tear gas into the crowd . there were no immediate reports of injuries . outside the presidential palace , in brasilia , dozens of people also gathered with signs and noisemakers accusing temer of plotting a coup against former president Dilma Rousseff . the latest political crisis comes as temer experiences a sharp popularity drop . according to recent data released

Prediction

hundreds	of	protesters	gather	in	front	of	the	streets	of	rio	de	janeiro	to	protest	against	president	michel	temer	,	who	is	accused	of
0.831	0.989	0.911	0.994	0.993	0.654	0.950	0.532	0.760	0.992	0.522	0.562	0.310	0.961	0.931	0.801	0.540	0.063	0.037	0.948	0.982	0.976	0.953	0.895
driving	a	former	senate	colleague	hush	money	to	``	keep	quiet	''	.											
0.833	0.794	0.539	0.357	0.306	0.499	0.216	0.985	0.695	0.665	0.428	0.971	0.984											

Article Only

brazil 's highest court has ordered the resignation of president michel temer , who is accused of driving a former senate colleague hush money to the country .

Reference

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”