Query-guided multi-perspective answer summarization

Attention seekers
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The task

How did knights who required glasses to see survive on the battlefield?

Asked 2 days ago Modified yesterday Viewed 8k times

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According to Wikipedia glasses were invented in 1268 by Roger Bacon. About a century later, the first wearable glasses appear on a painting by Thomasso da Modena in 1352.

Glasses were rudimentary at best, and very expensive to make. The only people who wore glasses were wealthy scholars, because of techn
(barely) for reading. Glasses of this per
able read, common for elderly people)
holding something very uncomfortable
a sedentary environment. Wearing tho
Least of all on a battlefield.

27

They Didn'

TL/DR: They
than a guy

As mention
impossible to
would not have a tremendously bad effect
near-blindness. You must consider the rang
vision is atrocious, in the 20/400 range. Any
difficulty identifying individuals at distances
tall/short/weird hair color or the only perso

2

In addition to the other posts, I would just like to add that helmets would probably produce a minor pinhole effect which would slightly reduce some optical abnormalties.

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answered yesterday
Aequitas
189 ● 1 ● 1 ● 5

4

I haven't
your vision was enough of a problem that you had difficulty carrying out your knightly duties, either: a. You didn't become a knight in the first place b. You died quickly in battle

I suppose you might get lucky, become a knight, and never get called to battle. But that strikes me as extraordinary luck...

The dataset: AnswerSumm


```
{
  "example_id": 9_24,
  "annotator_id": [1],
  "question": {
    "author": "gaming.stackexchange.com/users/11/Jeffrey",
    "forum": "gaming.stackexchange.com",
    "link": "gaming.stackexchange.com/questions/1",
    "question": "Now that the Engineer update has come, there will be lots of
    Engineers building up everywhere.  How should this best be handled?",
    "question_tags": "\<team-fortress-2\>",
    "title": "What is a good strategy to deal with lots of engineers turtling on the
    other team?"
  },
  "answers": [
    {
```

The dataset: AnswerSumm


```
"answer_details": {
        "author": "gaming.stackexchange.com/users/44/Corv1nus",
        "score": 49
      }
      "sents": [
        "text": "Lots of medics with lots of ubers on high-damage-dealing classes."
        "label": [0],
        "label_summ": [0],
        "cluster_id": [[-1]],
      ]
      ...
    },
    ...
  ]
```

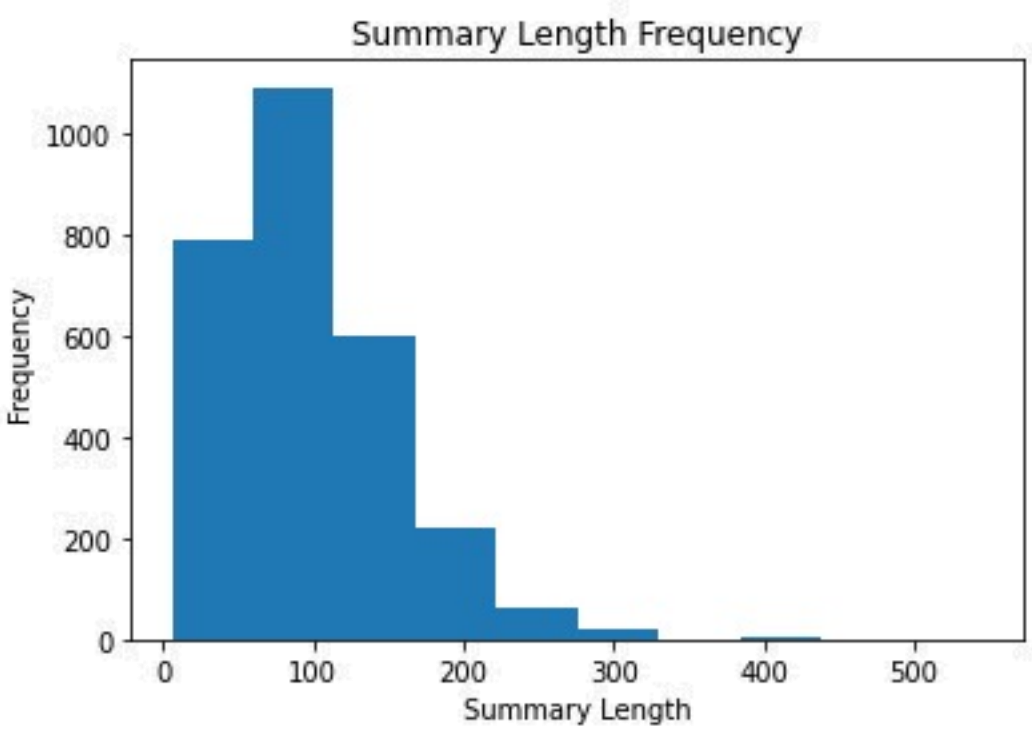
The dataset: AnswerSumm


```
"summaries": [
     [
      "Demomen usually work best against a sentry farm. Heavies or pyros can also be
    effective. Medics should be in the frontline to absorb the shock. Build a
    teleporter to help your team through.",
      "Demomen are best against a sentry farm. Heavies or pyros can also be effective.
    The medic should lead the uber combo. ..."
     ]
  ]
  "cluster_summaries":[
    "Demomen are best against a sentry farm.",
    "Heavies or pyros can also be effective.",
    ...
  ]
}
```

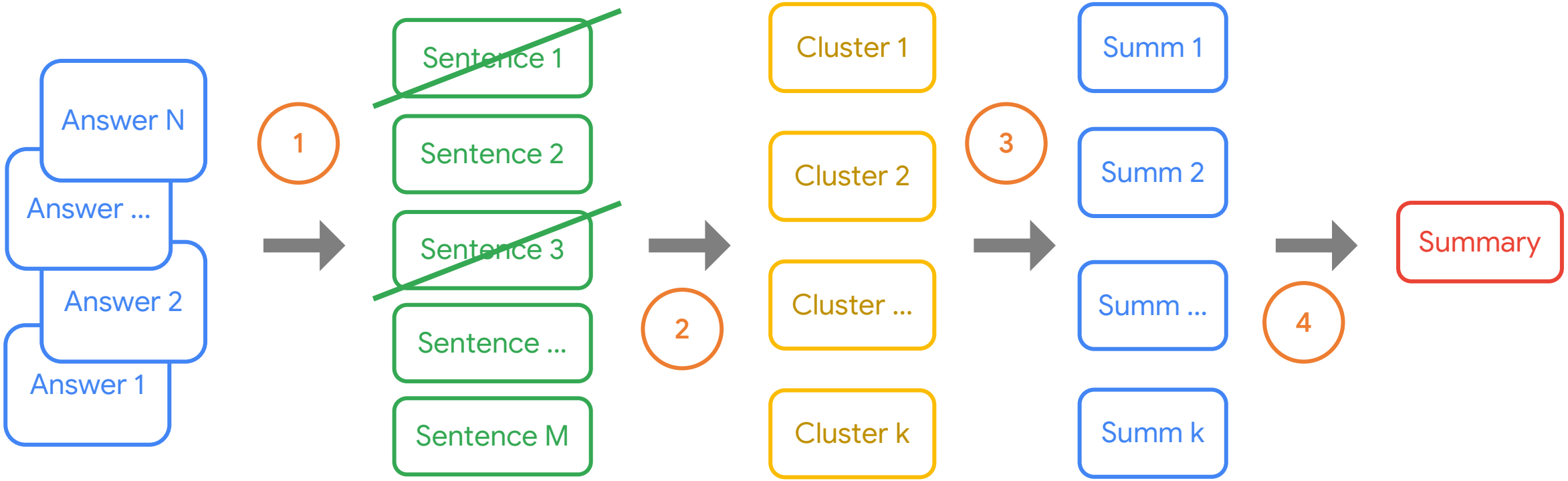
Baselines

First, we concatenate all the answers from the thread. Then we run standard summarization models on the concatenated text.

- Pretrained BART summarizer: maximum summary length 100
- T5: Maximum length 100
- T5: Maximum length 256



Model



1 = BERT-based extractive summarizer, 2 = k-means clustering for first model, heirarchial clustering for second model, 3 = abstractive summarization with T5 for first model and fine-tuned BART for second model, 4 = concatenation

Models comparison

S.no.	Model	R-1	R-2	R-L
1	BART + RL **(SOTA)**	28.81	8.96	24.72
2	T5-100	23.69	5.47	19.80
3	BART-100	3.52	0.78	3.07
4	T5-256	25.16	5.24	22.25
5	Model-base	16.97	2.95	15.27
6	Model-with-upvotes	22.01	3.89	19.58
7	**Model-upvote-agnostic**	**25.29**	**5.89**	**21.11**

Conclusion, future work

- Worked on a new dataset, which introduced challenges such as no baselines.
- Did not factor in query, as unlike traditional query-based summarization problems, as our dataset does not contain irrelevant answers. This makes it multi-document summarization.
- Did not attempt some of the SOTAs for multi-document summarization, as those are targeted at and optimized for long documents.
- Could use text entailment and fact verification models to see if it improves quality of summary further.
- Use other evaluation metrics that do not incentivise copying (such as with RL-based models)

Questions?