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Abstract

- There is an urgent need to understand website privacy policies. They are sometimes long, vague and hard to understand the information.
- To help with this problem, summarization is an effective technology tool to help customers quickly glance through the information.
- Text summarization is the art of condensing lengthy text documents into a short easy to read article using software.
- Different types of techniques includes extractive and abstractive summarization. My future plan on how summarization can help privacy policies to be more understandable is by annotating data.

Extractive Summarization

- Extractive summarization is to directly select tokens from the original text. It appears in the same order as the original document.

Original Text **Germany** emerges victorious in 2-0 win **Saturday** against Argentina.
Summary Germany win Saturday.

Figure 1a : Extractive Summarization

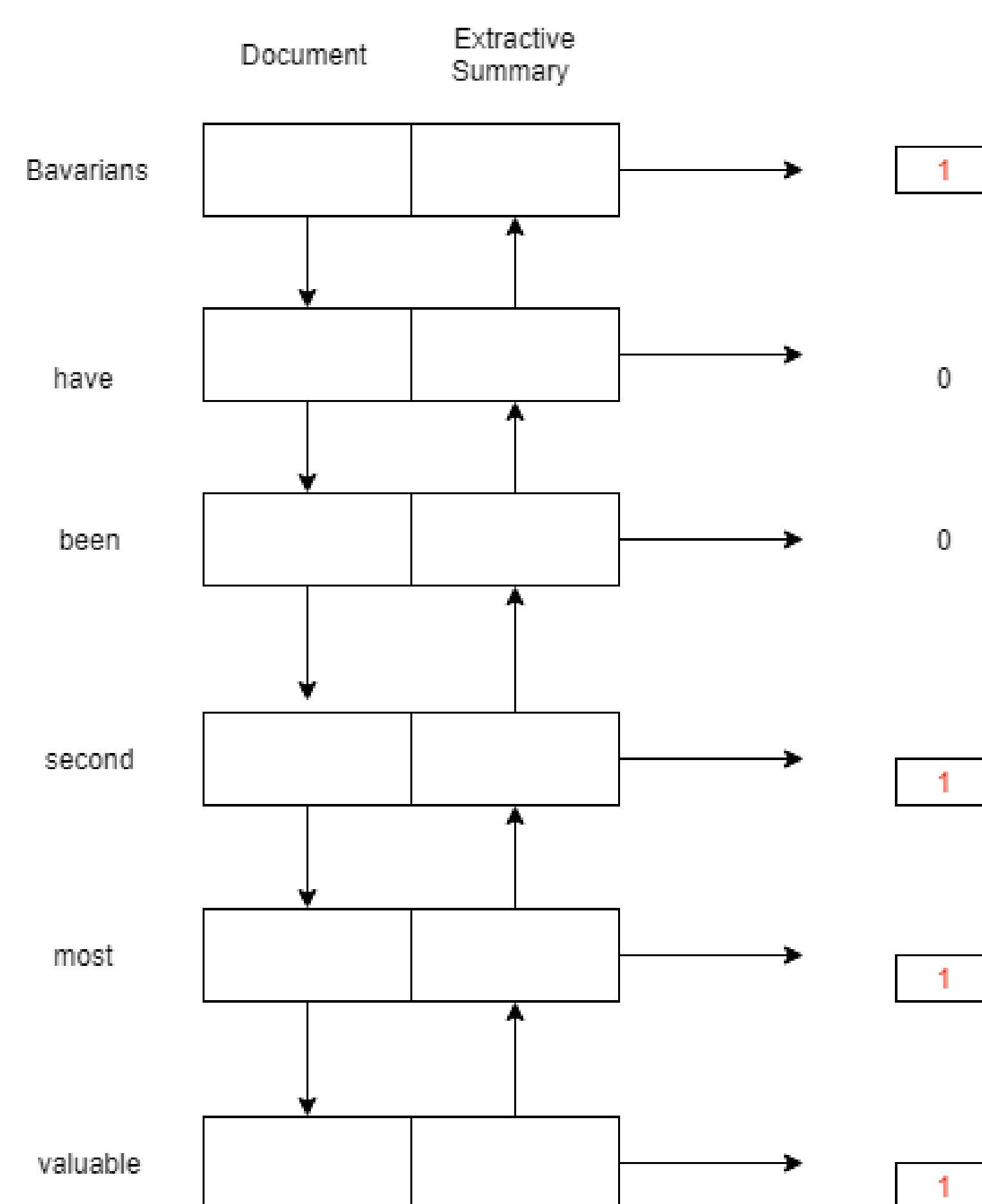


Figure 1b: System framework for an Extractive Summary

Abstractive Summarization

- Abstractive summarization is expressed by the words of the summary author. Rewording phrases and clauses from the original text.

Original Text Germany emerge victorious in 2-0 win Saturday.
Summary Germany **beat Argentina**.

Figure 2a: Abstractive Summarization

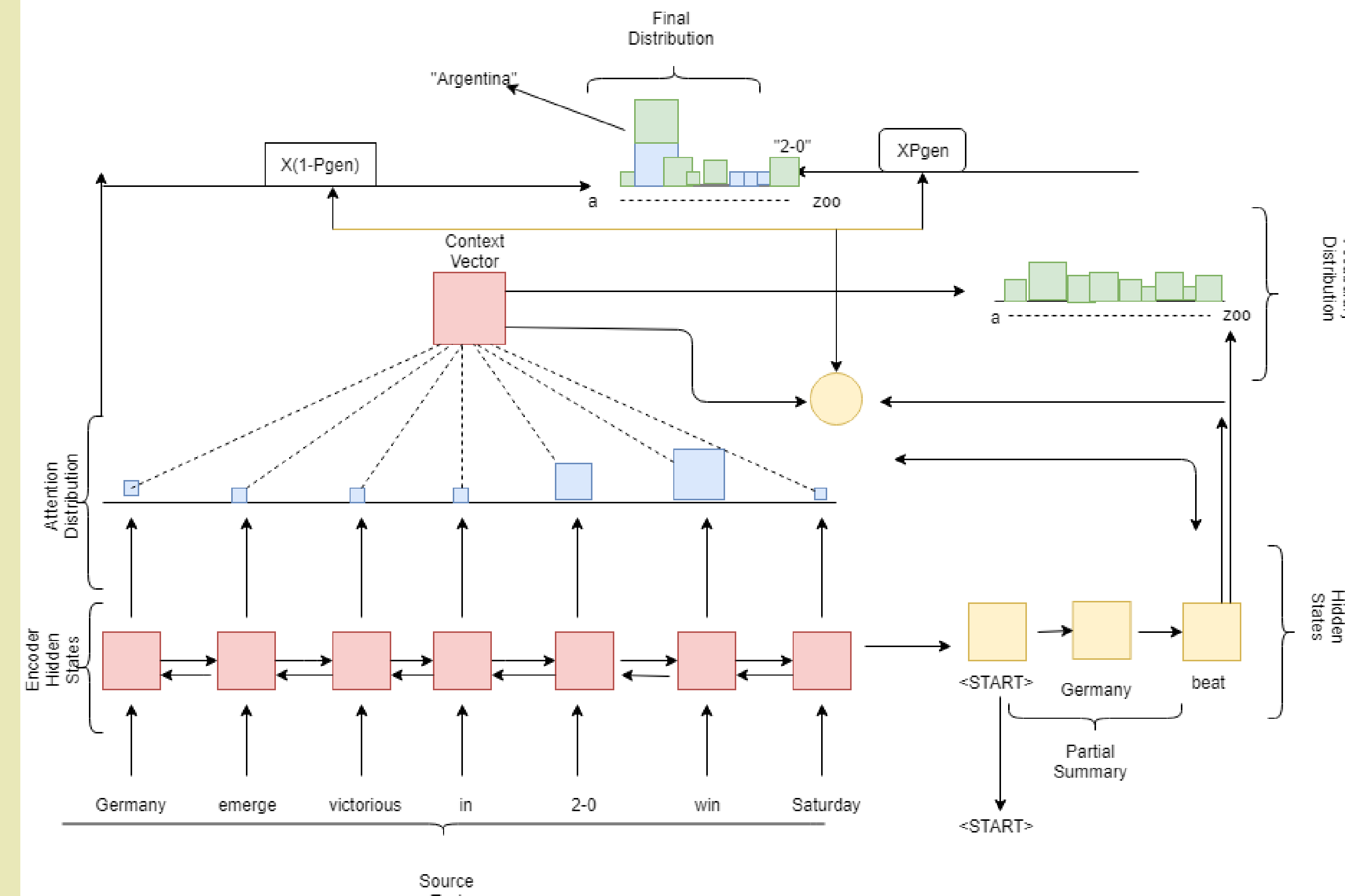


Figure 2b: Abstractive summary using Pointer Generator Model

References

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Future Plan

- To help summarize privacy policies or any summary article to be more understandable is by annotating data.
- Generating short text summaries has been a challenging task for Natural Language Processing researchers.
- One of the solutions is to create a list of questions for each topic of discussion.
- Using question to answer pairs to help validate the informativeness and the correctness of summaries.
- When it becomes time to test, it will be evaluated by how many questions can be answered by the system summary.

...teenager at a school in Finland went on a shooting rampage Wednesday, November 11, 2007, killing 8 people, then himself. The shooter, Pekka-Eric Auvinen, an 18 year old student at the Jokela High school in southern Finland, shot and killed 3 women, including the headmaster, a nurse, and five boys, ages between 16 and 18. Shootings like this are very rare in Finland and this is the worst in the country's history. It is not clear why this happened, but he posted a video on YouTube about being a "natural selector". On November 8, 2007, an 18-year-old student killed eight people at Jokela High School in Tuusula, Finland. Five male students, the headmistress, school nurse, and a woman taking a class were the victims. Twelve others were treated for injuries. Four days earlier, the gunman Pekka-Eric Auvinen, posted a video entitled "Jokela High School Massacre" on YouTube website. Auvinen, who also killed himself, was a brilliant but complex loner obsessed with weapons, and an admirer of Hitler and Stalin. He brought to school a 22-calibre pistol and 500 rounds. Finland ranks third behind the U.S. and Yemen in gun ownership rates. Pekka-Eric Auvinen, a teenager, shot to death 8 people randomly, injured several others, then killed himself at a school in Finland. The dead included the headmistress and the school nurse. He had signaled his intentions in a video posted earlier on YouTube. In the video, Auvinen called for revolution against the system and said he intended to shoot people at his school. Auvinen had no criminal history and apparently had a normal family life. Police found a handgun and 500 bullets on his body. The president and prime minister expressed shock at the shooting and ordered flags flown at half-mast. On 7 November 2007 eighteen-year-old Pekka-Eric Auvinen, a student at the Jokela High School in the small town of Tuusula, Finland, went on a rampage at his school, shooting dead seven classmates, and the headmistress and wounding a dozen others. Prior to the shooting he signaled his intentions in a video entitled "Jokela High School Massacre 11/07/2007" that he posted on the YouTube Internet site. The shooting spree lasted twenty minutes. Following the shooting Auvinen shot himself in the head and died from his injuries. Police and students were at a loss to explain Auvinen's motive for the shooting.

Questions and Answers for Topic D1111-A	
Where did the shooting occur?	Jokela High School in southern Finland
When did the shooting occur?	November 11, 2007
What was the shooters motive behind the shooting?	None, he wanted to be a "natural selector"
How many people were killed in the shooting?	8
Who were the victims of the shooting?	3 women including a headmaster, nurse and 5 boys
Was the shooter in contact with anyone before or after the shooting?	No
How long did the shooting last?	20 minutes
Was the shooter identified?	Yes
What was the name of the shooter?	Pekka-Eric Auvinen
What was the age of the shooter?	18 years old
Was the shooter arrested?	No
Did the shooter have a criminal history?	No
What weapons were found?	22 calibre and 500 rounds
How many people were injured or wounded by this shooting?	12
What happened to the shooter?	He killed himself after shooting at the school
Did the shooter leave signs of his attempt to shoot the school?	He signaled his intentions in a video
Where did the shooter leave signs of his intentions?	On his youtube page
Did the police investigate the shooters youtube videos?	No
Did anyone report the shooters youtube page?	No
Are school shootings common in Tuusula, Finland?	No
What is Finland's rank in gun ownership rates?	3rd behind the United States

Figure 3: Topic and Answers for Annotating Data

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