University *of Ljubljana*
Faculty *of Computer and*
Information Science

Cross-Lingual Question Generation

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Abstract

The abstract goes here. The abstract goes here.

Keywords
Keyword1, Keyword2, Keyword3 ...

Introduction

Inspired by the pioneering studies of Raffel et al. (2020) and Thakur et al. (2021), this project ventures into the field of cross-lingual question generation by expanding the scope of the Doc2Query method. By adapting a T5 model, previously fine-tuned on the MSMARCO dataset, our goal is to innovate in creating questions from texts in various languages. This effort aims to advance the current state of question generation technologies for use in multiple languages and to explore the complexities and challenges of such applications across different linguistic contexts.

The importance of this research lies in its potential to make information retrieval accessible across linguistic boundaries, thus promoting equal access to information beyond the anglophone sphere. By focusing on Slovenian datasets for fine-tuning, our research offers a specific perspective on the obstacles and possibilities that come with cross-lingual NLP techniques.

Through a thorough review of the existing body of literature and the creative use of the Doc2Query method, this investigation is set to illuminate the path forward for cross-lingual question generation tools. It aims to provide insights into their refinement, enhancement, and practical application.

Methods

Use the Methods section to describe what you did an how you did it – in what way did you prepare the data, what algorithms did you use, how did you test various solutions ... Provide all the required details for a reproduction of your work.

Below are LaTeX examples of some common elements that you will probably need when writing your report (e.g. figures, equations, lists, code examples ...).

Equations

You can write equations inline, e.g. $\cos \pi = -1$, $E = m \cdot c^2$ and α, or you can include them as separate objects. The Bayes's rule is stated mathematically as:

$$P(A|B) = \frac{P(B|A)P(A)}{P(B)}, \tag{1}$$

where A and B are some events. You can also reference it – the equation 1 describes the Bayes's rule.

Lists

We can insert numbered and bullet lists:

1. First item in the list.
2. Second item in the list.
3. Third item in the list.

- First item in the list.
- Second item in the list.
- Third item in the list.

We can use the description environment to define or describe key terms and phrases.

Word What is a word?.

Concept What is a concept?

Idea What is an idea?

Random text

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Figures

You can insert figures that span over the whole page, or over just a single column. The first one, Figure 1, is an example of a figure that spans only across one of the two columns in the report.

On the other hand, Figure 2 is an example of a figure that spans across the whole page (across both columns) of the report.

Tables

Use the table environment to insert tables.

Table 1. Table of grades.

Name		
First name	Last Name	Grade
John	Doe	7.5
Jane	Doe	10
Mike	Smith	8

Code examples

You can also insert short code examples. You can specify them manually, or insert a whole file with code. Please avoid inserting long code snippets, advisors will have access to your repositories and can take a look at your code there. If
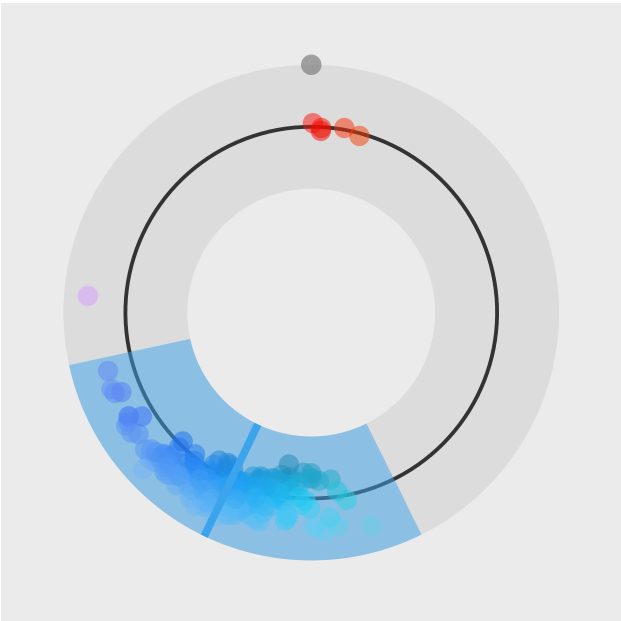

Figure 1. A random visualization. This is an example of a figure that spans only across one of the two columns.

necessary, you can use this technique to insert code (or pseudo code) of short algorithms that are crucial for the understanding of the manuscript.

Listing 1. Insert code directly from a file.

```python
import os
import time
import random

fruits = ["apple", "banana", "cherry"]
for x in fruits:
    print(x)
```

Listing 2. Write the code you want to insert.

```r
import(dplyr)
import(ggplot)

ggplot(diamonds,
       aes(x=carat, y=price, color=cut)) +
  geom_point() +
  geom_smooth()
```

Results

Use the results section to present the final results of your work. Present the results in a objective and scientific fashion. Use visualisations to convey your results in a clear and efficient manner. When comparing results between various techniques use appropriate statistical methodology.

More random text

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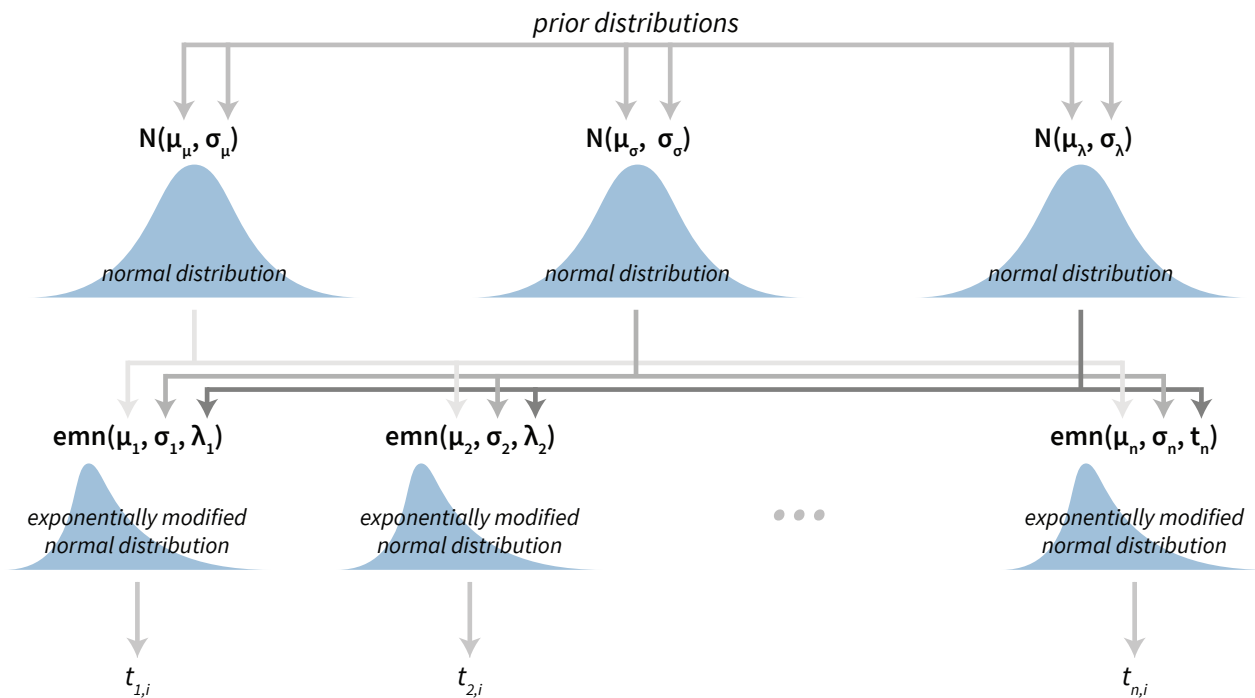
Figure 2. Visualization of a Bayesian hierarchical model. This is an example of a figure that spans the whole width of the report.

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Discussion

Use the Discussion section to objectively evaluate your work, do not just put praise on everything you did, be critical and exposes flaws and weaknesses of your solution. You can also explain what you would do differently if you would be able to start again and what upgrades could be done on the project in the future.

Acknowledgments

Here you can thank other persons (advisors, colleagues ...) that contributed to the successful completion of your project.

References