

SECTION ONE

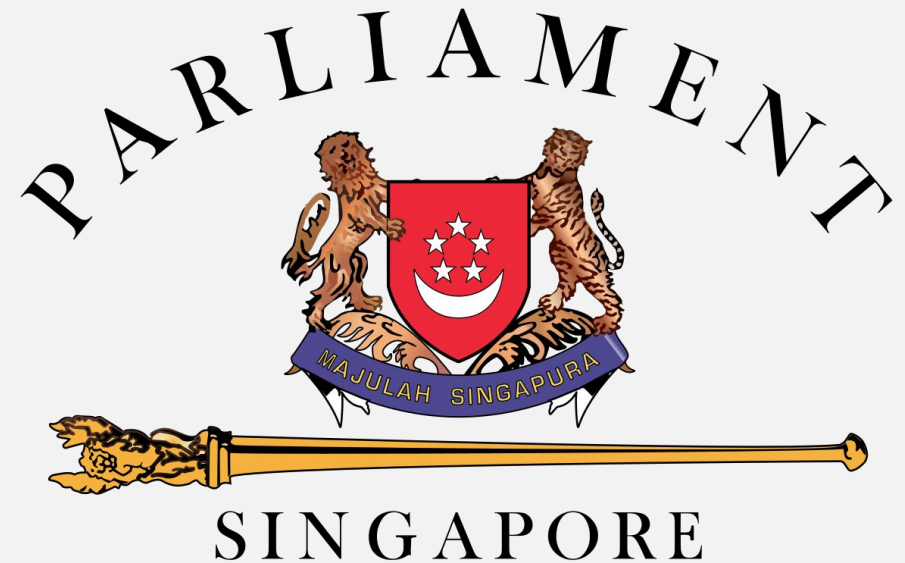
PARLIAMENT WEB SCRAPING

Motivation

- Public Accountability
- Policy Formulation and Review
- Balance and Check

Objectives

- Summarize common topics from COS debates that took place within the 13th parliament
- Identify MPs who asked questions frequently about each topic



AUTOMATE SEARCHING

SEARCH REPORTS

By Keyword ?

☐ Search within titles only (eg: title of Question or title of Bill)

By Parliament

4th (07-02-1977 To 04-12-1980)
5th (03-02-1981 To 03-12-1984)
6th (25-02-1985 To 16-08-1988)
7th (09-01-1989 To 13-08-1991)
8th (06-01-1992 To 15-12-1996)
9th (26-05-1997 To 17-10-2001)
10th (25-03-2002 To 20-04-2006)
11th (02-11-2006 To 19-04-2011)
12th (10-10-2011 To 25-08-2015)
13th (15-01-2016 To 23-06-2020)
14th (24-06-2020 To Present)

Search Options

with all the words

By Date Range

All (1955 to Current)

2. Select the 13th parliament

1. Get search box and fill it up

3. Find "Search" and click

SCRAPE INDIVIDUAL SEARCH ITEMS

PARLIAMENT SINGAPORE

View this Sitting's Official Report in Full

Parliament No:	13
Session No:	2
Volume No:	94
Sitting No:	134
Sitting Date:	4-6-2020
Section Name:	Ministerial Statements
Title:	Government's Plans in our Continued Fight against COVID-19 Pandemic
MPs Speaking:	[Mr Deputy Speaker, Mr Deputy Speaker, Miss Cheryl Chan Wei Ling (Fengshan), Mr S Iswaran, Miss Cheryl Chan Wei Ling, Mr Saktiandi Supaat (Bishan-Toa Payoh), Mr Deputy Speaker, Mr Deputy Speaker, Mr Saktiandi Supaat, The Minister for Communications and Information and Information and Minister-in-charge of Trade Relations (Mr S Iswaran)]

GOVERNMENT'S PLANS IN OUR CONTINUED FIGHT AGAINST COVID-19 PANDEMIC

Debate resumed.

Mr Deputy Speaker: Minister Iswaran.

6.49 pm

The Minister for Communications and Information and Information (Mr S Iswaran): Thank you, Mr Deputy Speaker. In the course of today's debate, several Members have spoken on the work of my Ministry, and our strategies to build a digital economy, and a digitally inclusive society which is also a key thrust in Deputy Prime Minister's Fortitude Budget.

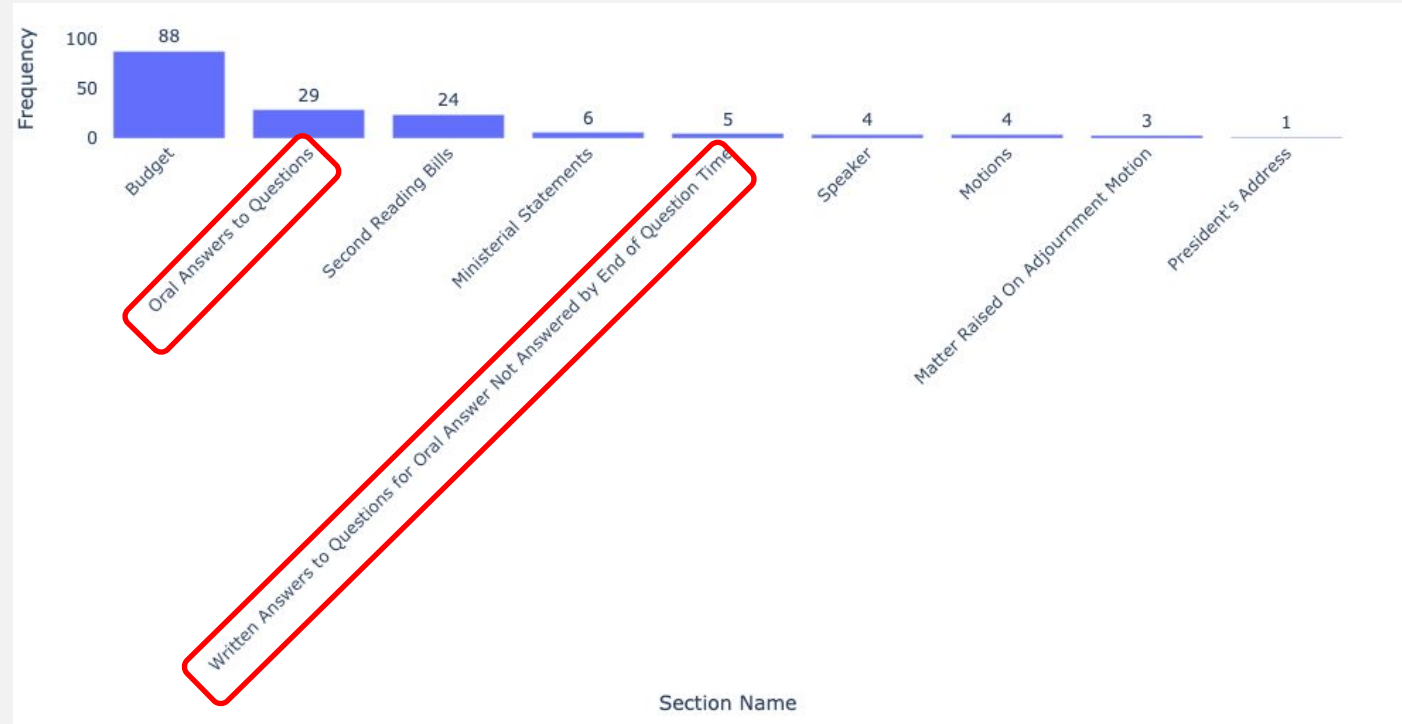
I would like to thank Mr Liang Eng Hwa, Ms Sylvia Lim, Ms Jessica Tan, Mr Douglas Foo, Mr Patrick Tay, Mr Melvin Yong, Mdm Lee Bee Wah, Mr Christopher de Souza, Mr Muhd Faisal Manap and Ms Tin Pei Ling for their thoughtful comments and valuable ideas on this important national effort.

COVID-19 poses an unprecedented challenge – to our health, our society and our economy. It has turned the world upside down, and we have seen competing narratives on how different societies, cultures and political systems have dealt, for better or worse, with the challenges posed by the virus.

Now, as we emerge from the various measures to curb the spread of the virus, we will have to face the stark reality of its economic impact. So far, we been somewhat cushioned by the major fiscal measures announced by the Government – amounting to nearly \$100 billion and 20% of our GDP. As Deputy Prime Minister Heng has said in his Budget speech, the Government has the responsibility to make the best use of our resources, to keep people safe, save jobs, transform businesses and most of all, ensure economic recovery.

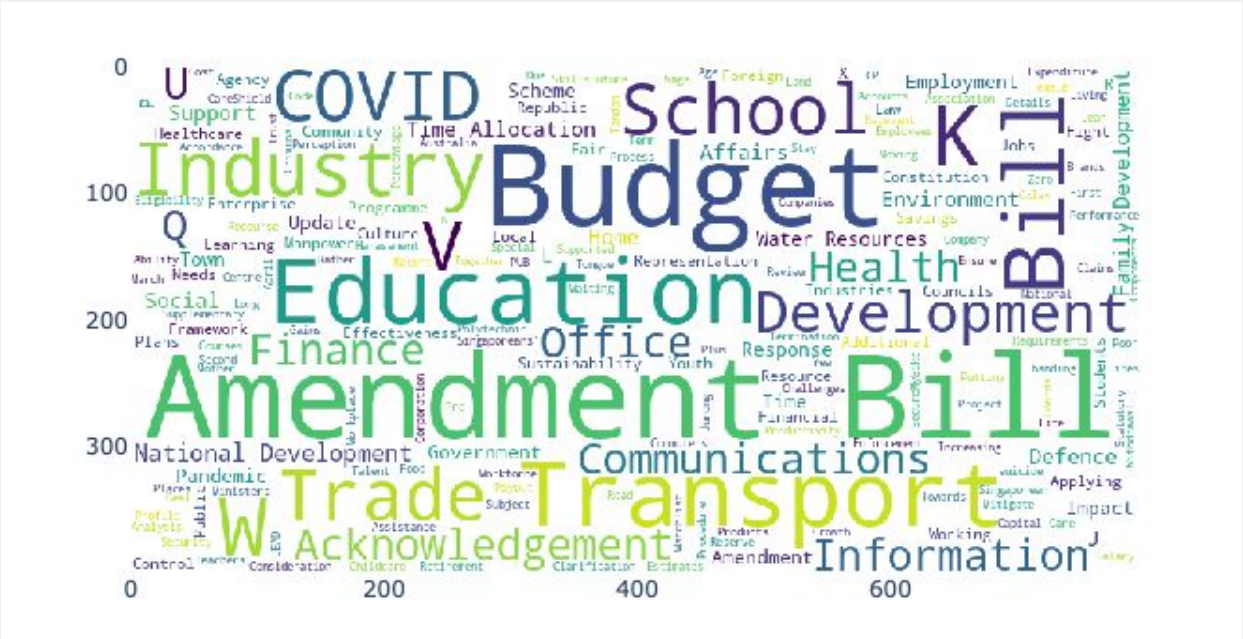
- Scrape first 10 pages of data
- Each page has ~20 items
- Last page has only 2 items
- Individual data scraped
 - Section Name
 - Title
 - MPs Speaking
 - Text

DISTRIBUTION OF SECTION NAMES



- “Budget” was most widely discussed among Section Names
- Only Section Names which are related to Questions and Answers will be considered for identifying MPs who asked questions frequently about each topic

WORD CLOUD FOR TITLES

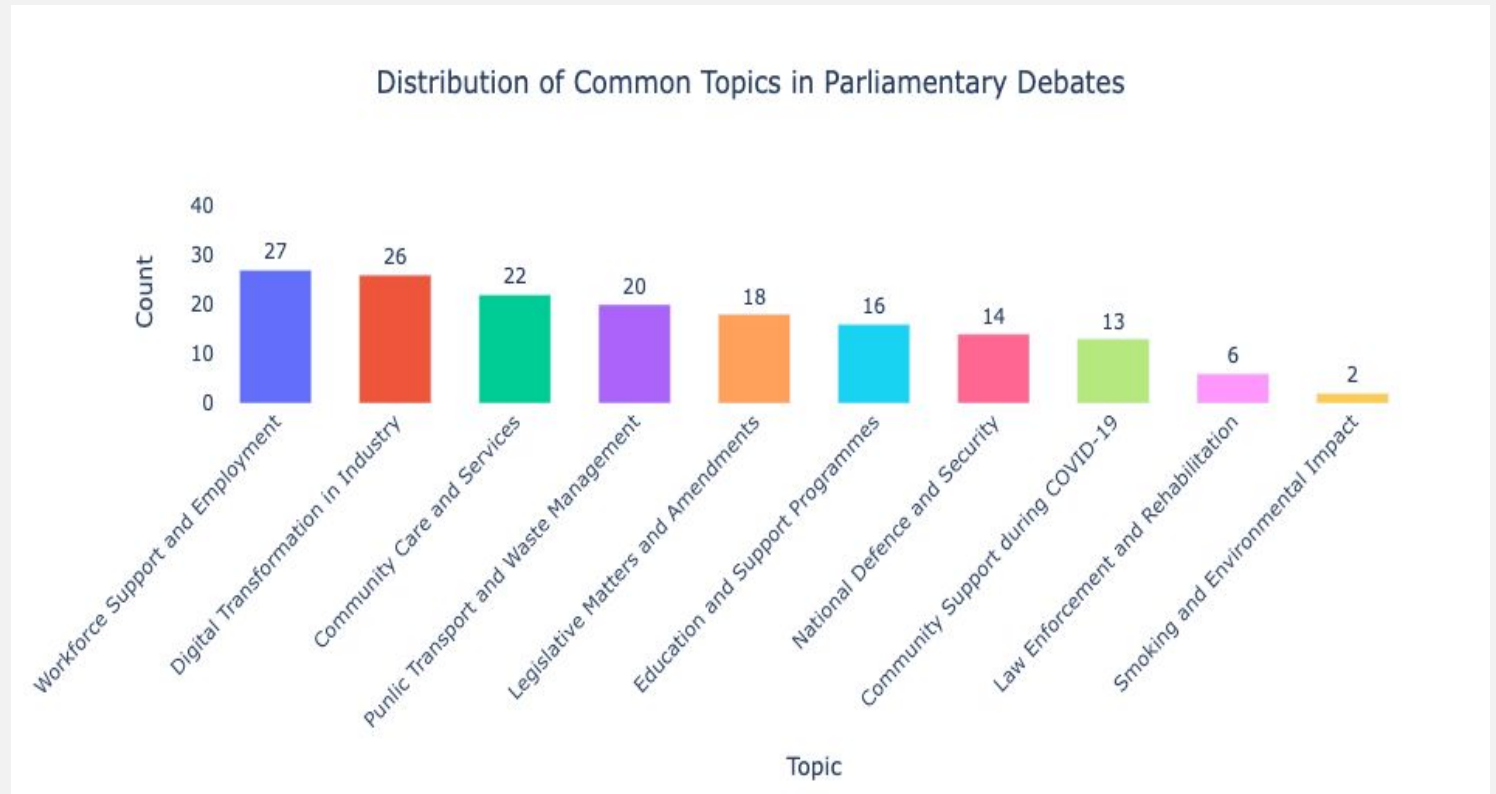


- Word cloud plotted based on frequency at which words occur in Title
- Excluded stopwords such as “in”, “debate”, “minister” which occur frequently but do not carry much information
- Some common topics being discussed are related to “Budget”, “Transport”, “Education”, “Amendment”, “COVID”

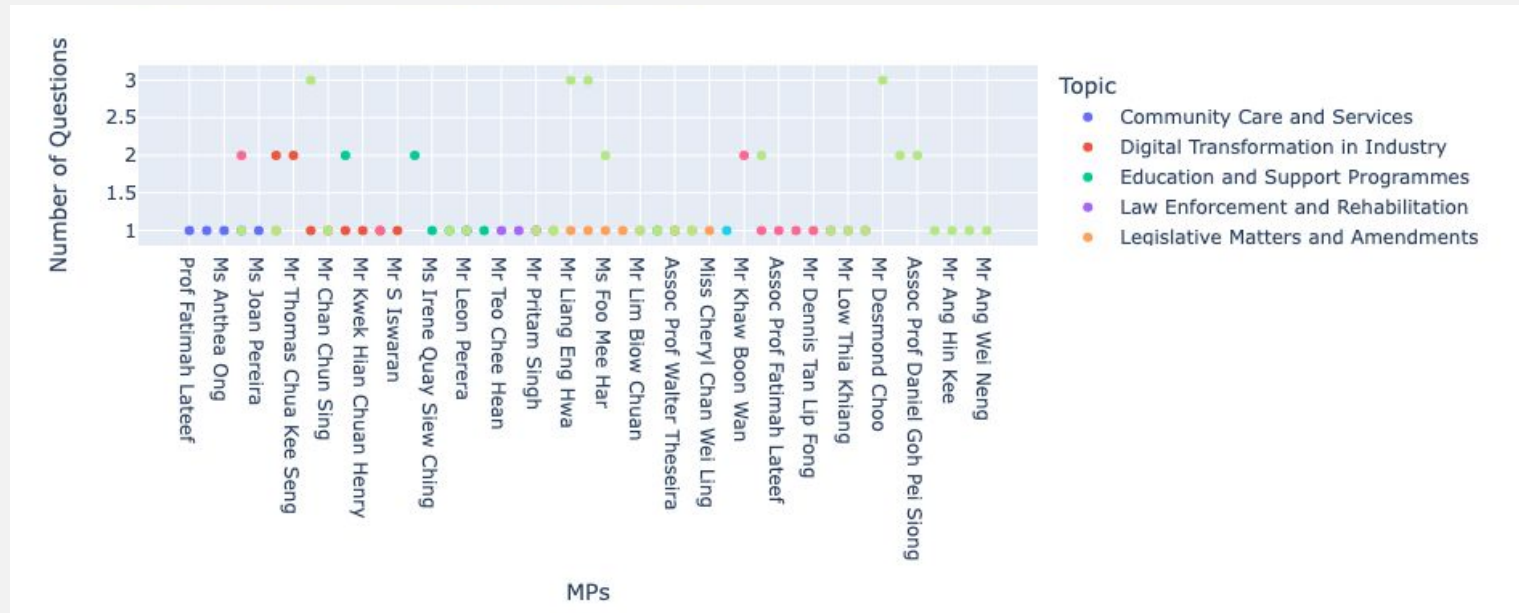
TOPIC MODELLING FOR TEXT

Latent Dirichlet Allocation

- Identifies patterns of word usage that correspond to different themes or topics
- Groups documents into a predefined number of clusters (topics) even without explicit labels
- Topics identified based on their top 10 most frequent keywords



MPS WHO ASKED QUESTIONS



- Interactive plot - can hover over each dot to view: Topic, MP, Number of Questions
- Most MPs asked 1 question, and 10 MPs asked 2 questions
- Most questions asked for Workforce Support and Employment, with 4 MPs asking 3 questions: Mr Liang Eng Hwa, Mr Patrick Tay Teck Guan, Mr Desmond Choo, Mr Lim Swee Say

THANK YOU!