



DEFENCE INFO HUB

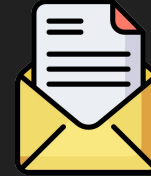
*Your AI gateway to defence-related news*



# Pain Points of Present Situation

Currently, MINDEF/SAF Info Hub sends daily email updates on defence-related news to Management and Comms officers:

- List of defence-related news topics
- Summary of each defence-related topic
- Coverage (i.e. TV broadcast, Radio, URL to online news sites)



However, there are still pain points which daily email updates cannot address:

1. Lack of an interactive news articles database for users to
  - a. Search for articles of the same topic that are published on different dates (e.g. COS22, COS23)
  - b. Search for entities that span across articles published on different dates (e.g. Army, China, etc)
2. Lack of a query engine to answer specific defence-related questions
  - a. It is time-consuming to read through the entire article
  - b. The summary of each defence-related topic in the daily email update may not contain the answers.



DEFENCE INFO HUB

addresses the pain points with  
two capabilities



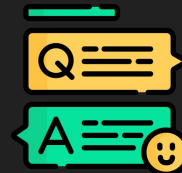
### Interactive Defence Articles' Database

- Allow users to search for articles based on topic/entity of interest in their titles
- Select the topic of interest
- Generate report based on selected topic of interest instead of the date of articles



### Defence Articles' Query Engine

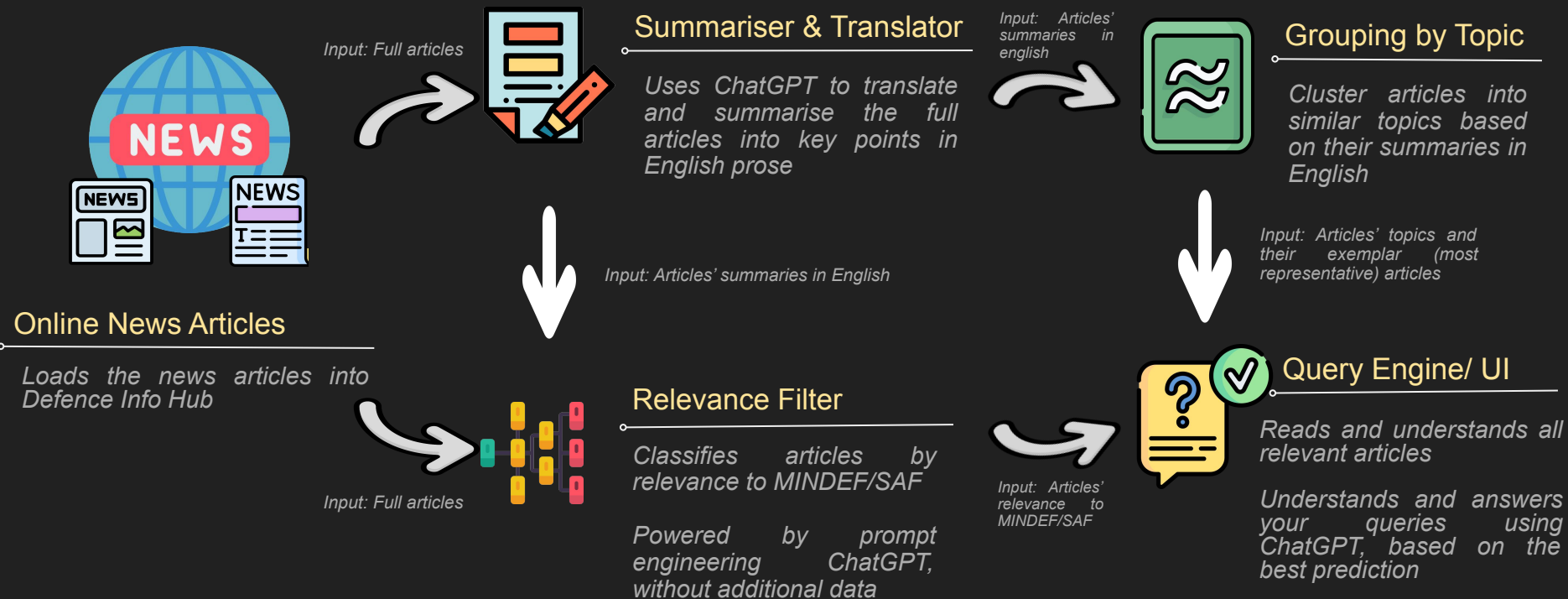
Ask what you want to know without reading the defence articles or their summaries



- Ease the processing of defence-related news
- Get answers to your queries quicker



## employs LLM tech to process news and answer users' queries



# Product Demo

<https://huggingface.co/spaces/mindefdata/infohub>

## Defence Articles Explorer

*(Interactive Defence Articles' Database)*

1. UI
2. Use Case #1: View Articles by Topic
3. Use Case #2: View Articles by Dates
4. Use Case #3: Generate Report

## Ask Me!

*(Defence Articles' Query Engine)*

1. UI
2. Use Case #1: Query details in Article

# Product Demo - 'Defence Articles Explorer' Tab

<https://huggingface.co/spaces/mindefdata/infohub>

We are on the "Defence Articles Explorer" Tab (Interactive UI)

Note: Exemplar article is the most representative article in the cluster of related articles. Hence, the drop down list contains the titles of articles representative of their respective articles' clusters.

Note: Date contains the exemplar articles' published dates.

Note: As no exemplar article is selected, the table shows all exemplar articles in our data.

The details to the articles are listed in the table:

- Title: Title of the article
- Summary: Summary of article based on its content
- Site: URL to the article
- Date: Published date of article


Defence Articles Explorer

Ask Me!

Label

[Read before use] Although the responses are contextualised to relevant defence articles, the underlying large language model may still generate inaccurate or hallucinated responses. You should use the responses with caution and take responsibility over the generated output. You should not input any classified or sensitive information.

Image

DEFENCE INFO HUB

Exemplar Article

Showing all titles

Date

Show all

Generate Report

File

digest.txt

109.2 KB

Download

Articles

Title	Summary	Site	Date
PIONEER - First in family to enlist, learning to lead	On May 18th, 942 cadets graduated as specialists and military experts of the Singapore Armed Forces. Among them was 3SG Jerrald Capuno Caballa, a Filipino and second-generation permanent resident, who is the first in his immediate family to enlist for national service. Caballa graduated as a combat medic of the SAF and successfully helped the medical officer in preparing the equipment and resuscitating and stabilizing a casualty during his first outfield exercise. Another graduand, 3SG Abdul Alim Bin Iskandar Dzulkhairi Kajai, was awarded the Silver Bayonet for his performance as detachment commander during a live firing exercise. The 55th Specialist Cadet Graduation Parade was reviewed by Senior Minister of State for Finance and for Transport, Mr Chee Hong Tat, who reminded the graduands to lead with empathy.	<a href="#">MINDEF PIONEER</a>	2023-06-10
PIONEER - 标志在美国亚利桑那州进行高跳训练30周年	The Peace Carvin II detachment, which operates F-16 fighter jets, celebrated its 30th anniversary of conducting high-end training in US airspace. The detachment is the longest-running overseas deployment in the Singapore Air Force and has accumulated over 75,000 flying hours while participating in major military exercises such as Red Flag, Maple Flag, and Green Flag. The anniversary was marked by a parade at Luke Air Force Base in Arizona, and the event was attended by senior officials from both Singapore and the US.	<a href="#">MINDEF PIONEER</a>	2023-04-26

Click here to toggle to "Ask Me!" Tab (Query Engine)

Please take note of the warnings before use.

Click "Show all" to reset your selections and show details of all exemplar articles in the table below.

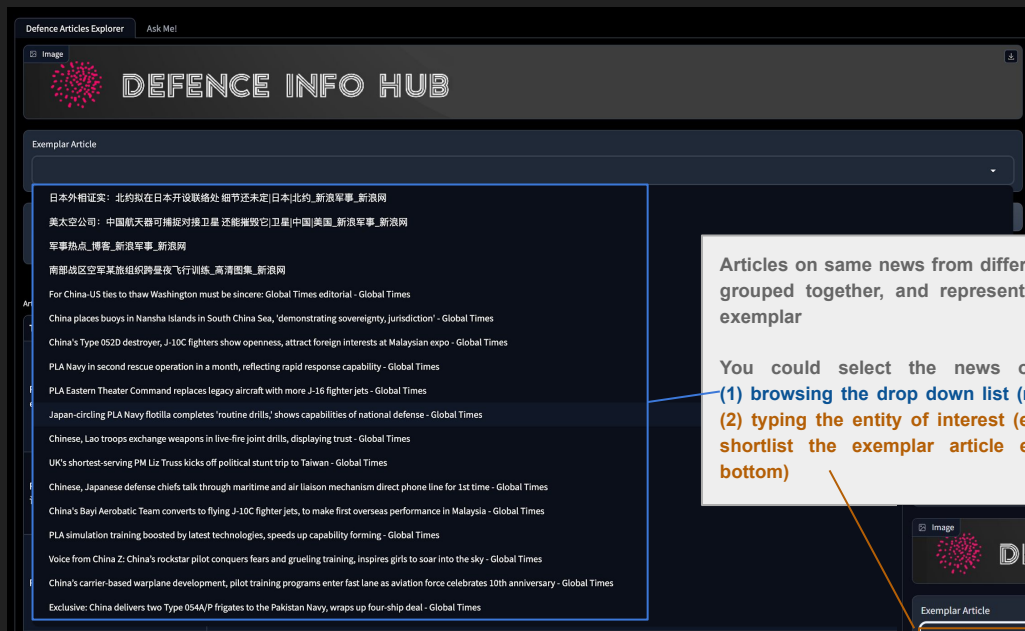
Click "Generate Report" to generate a text file containing your selection of articles.

Note: "Download" link will appear after clicking "Generate Report".

Click "Download" to download the generated report.

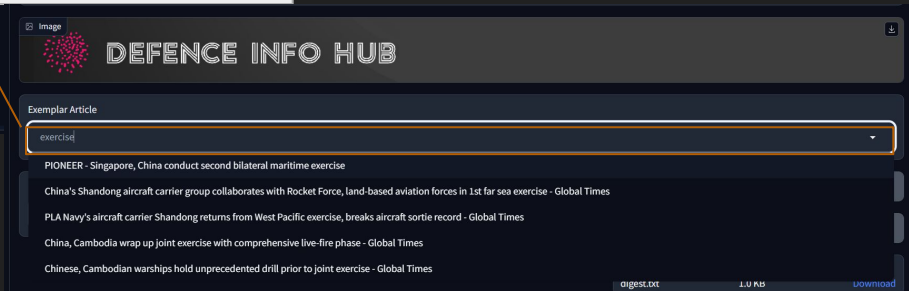
# Product Demo - View Articles by Topic

<https://huggingface.co/spaces/mindefdata/infohub>



Articles on same news from different sources are grouped together, and represented by a single exemplar article.

You could select the news of interest by:  
(1) browsing the drop down list (refer to the left)  
(2) typing the entity of interest (e.g. exercise) to shortlist the exemplar article easily (refer to bottom)



# Product Demo - View Articles by Date

<https://huggingface.co/spaces/mindefdata/infohub>


Defence Articles Explorer

Ask Me!

Label

[Read before use] Although the responses are contextualised to relevant defence articles, the underlying large language model may still generate inaccurate or hallucinated responses. You should use the responses with caution and take responsibility over the generated output. You should not input any classified or sensitive information.

Image

DEFENCE INFO HUB

Exemplar Article

Date

2023-05-24

Show all

Generate Report

File

digest.txt

109.2 KB

Download

Articles

Title	Summary	Site	Date
M'sia pertingkat keupayaan pertahanannya di tengah ketegangan geopolitik serantau - BERITA Mediacorp	Malaysia has announced the acquisition of 18 FA-50 fighter jets from South Korea as part of a 16% increase in the country's military budget. The announcement was made at the Langkawi International Maritime and Aerospace Exhibition (LIMA) 2023, which is Malaysia's largest defence exhibition. The purchase reflects a trend of increased military spending worldwide amid escalating geopolitical tensions. The LIMA exhibition features over 500 companies from around 30 countries showcasing their latest technologies. Malaysia is also facing challenges in ensuring the security of its borders, particularly in the disputed waters of the South China Sea, where tensions between Beijing and Washington are high.	<a href="#">Mediacorp Berita</a>	2023-05-24
美印太司令员：中美时代太重要，随时准备与中国军方会面_新闻新闻	The Commander of the US Indo-Pacific Command, John C. Aquilino, stated that military dialogue between the US and China is crucial for regional peace and that he is ready to meet with the Chinese military at any time. Aquilino emphasized that normal military communication is crucial for responsible competition management, risk reduction, and avoiding misjudgment. He added that the cost of conflict is too high and that the Indo-Pacific Command's mission is to avoid conflict, not provoke it. However, Aquilino also accused China of attempting to change and overthrow the existing international order. The Chinese military representative present at the same event countered Aquilino's remarks, emphasizing China's commitment to promoting regional peace and stability and the importance of mutual dialogue and cooperation.	<a href="#">Sina 新闻</a>	2023-05-24

Selecting a specific date will display only articles published on that date.

Click on "Generate Report" to generate a summary report of the articles from the date of interest.



# Product Demo - Generate Report

<https://huggingface.co/spaces/mindefdata/infohub>

Selecting an exemplar article will display the articles relating to the same news.


Defence Articles Explorer

Ask Me!

Label

[Read before use] Although the responses are contextualised to relevant defence articles, the underlying large language model may still generate inaccurate or hallucinated responses. You should use the responses with caution and take responsibility over the generated output. You should not input any classified or sensitive information.

Image

 **DEFENCE INFO HUB**

Exemplar Article

Japan-circling PLA Navy flotilla completes 'routine drills,' shows capabilities of national defense - Global Times

Date

2023-05-18

Show all

Generate Report

File

digest.txt

1.0 KB

Download

Articles

Title	Summary	Site	Date
Japan-circling PLA Navy flotilla completes 'routine drills,' shows capabilities of national defense - Global Times	The Chinese People's Liberation Army (PLA) Navy completed a full circumnavigation around Japan, which is routine and demonstrates the PLA Navy's capabilities, according to Chinese experts. Japan's Maritime Self-Defense Force spotted the PLA Navy flotilla, consisting of several advanced warships, as it sailed through the Miyako Strait and waters between the Okinawa islands to the east of Taiwan into the East China Sea. The flotilla sailed in a full circle around Japan clockwise during a voyage of more than half a month, with the far sea exercises becoming a routine for the PLA Navy. The experts said Japan's hyping of the PLA Navy activities is based on a guilty conscience, as Japan is conspiring to break the post-WWII world order and return to a path of militarism.	<a href="#">Global Times</a>	2023-05-18
PLA flotilla spotted in waters near Japan after Tokyo's provocative remarks on Taiwan question - Global Times	China's People's Liberation Army (PLA) Navy flotilla has been spotted in waters near Japanese islands after Japan made provocative remarks concerning China's Taiwan island. The flotilla consists of a Type 055 large destroyer, a Type 052D destroyer, a Type 064A frigate and a Type 903A comprehensive replenishment ship. The vessels have been seen making a clockwise circumnavigation around Japan. While the voyage is likely a routine exercise, experts believe it could be seen as a strong message to Japan. Chinese experts have warned that China will not tolerate Japan interfering in its internal affairs.	<a href="#">Global Times</a>	2023-05-11

Click on "Generate Report" to generate a text file with the article's title, summary, sources and the URLs.

Click on "Download" to download the text file containing the generated report.

# Product Demo - Example of a Generated Report

<https://huggingface.co/spaces/mindefdata/infohub>

Japan-circling PLA Navy flotilla completes 'routine drills,' shows capabilities of national defense - Global Times

Title

The Chinese People's Liberation Army (PLA) Navy completed a full circumnavigation around Japan, which is routine and demonstrates the PLA Navy's capabilities, according to Chinese experts. Japan's Maritime Self-Defense Force spotted the PLA Navy flotilla, consisting of several advanced warships, as it sailed through the Miyako Strait and waters between the Okinawa islands to the east of Taiwan into the East China Sea. The flotilla sailed in a full circle around Japan clockwise during a voyage of more than half a month, with the far sea exercises becoming a routine for the PLA Navy. The experts said Japan's hyping of the PLA Navy activities is based on a guilty conscience, as Japan is conspiring to break the post-WWII world order and return to a path of militarism.

Summary

Sources:

Global Times: <https://www.globaltimes.cn/page/202305/1290962.shtml>

Global Times: <https://www.globaltimes.cn/page/202305/1290562.shtml>

Sources + URLs

# Product Demo - 'Ask Me!' Tab

<https://huggingface.co/spaces/mindefdata/infohub>

The screenshot shows the 'Ask Me!' tab of the 'Defence Articles Explorer' application. At the top, there are two tabs: 'Defence Articles Explorer' and 'Ask Me!'. Below the tabs, there is a 'Label' section with a warning message: '[Read before use] Although the responses are contextualised to relevant defence articles, the underlying large language model may still generate inaccurate or hallucinated responses. You should use the responses with caution and take responsibility over the generated output. You should not input any classified or sensitive information.' Below this is a 'Chatbot' section with a text input field labeled 'Ask a question' and two buttons: 'Ask' and 'Clear'.

Defence Articles Explorer Ask Me!

Label

[Read before use] Although the responses are contextualised to relevant defence articles, the underlying large language model may still generate inaccurate or hallucinated responses. You should use the responses with caution and take responsibility over the generated output. You should not input any classified or sensitive information.

Chatbot

Ask a question

Ask Clear

Click "Ask" after you have typed your question.

We are on the "Ask Me!" Tab (Query Engine)

Please take note of the warnings before use.

Type your question here.

Click "Clear" to remove all preceding questions and answers, i.e. reset the chatbot conversations.

# Product Demo - Query Engine on Defence-related Articles

<https://huggingface.co/spaces/mindefdata/infohub>

I want to know more about the most recent graduation ceremony:

The Query Engine is able to tell me the date of the most recent graduation ceremony correctly.

The Query Engine is able to provide me with the correct link to the article.

The Query Engine is not able to identify the interviewees mentioned in the articles correctly.

The Query Engine is able to identify the award recipient correctly.

Defence Articles Explorer Ask Me!

**Label**

[Read before use] Although the responses are contextualised to relevant defence articles, the underlying large language model may still generate inaccurate or hallucinated responses. You should use the responses with caution and take responsibility over the generated output. You should not input any classified or sensitive information.

**Chatbot**

When is the most recent graduation ceremony?

The most recent graduation ceremony for the Singapore Armed Forces was on May 18th, 2023.

Could you provide me with the URL to the article?

The URL to the article about the most recent graduation ceremony of the Singapore Armed Forces is: [https://www.mindef.gov.sg/web/portal/pioneer/article/regular-article-detail/people/2023-Q2/18may23\\_news1](https://www.mindef.gov.sg/web/portal/pioneer/article/regular-article-detail/people/2023-Q2/18may23_news1)

Who was interviewed in the article?

There is no mention of an interview in the article about the most recent graduation ceremony of the Singapore Armed Forces. The article reports on the graduation ceremony and the achievements of some of the graduands, as well as the remarks made by Senior Minister of State for Finance and for Transport, Mr Chee Hong Tat.

Who was awarded Silver Bayonet at the graduation parade?

3SG Abdul Alim Bin Iskandar Dzulkhairi Kajai was awarded the Silver Bayonet at the graduation parade.

Ask a question

Ask Clear



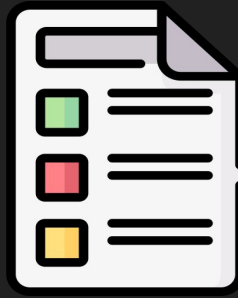
3 out of 4 questions were answered correctly.

# Possible Improvements



## Better UI

Gradio is useful for building quick demos but has limited customisation.



## Customised Report

The generated report should allow for more than one topic of interest.



## Increase the number of articles

75% of the observations are not clustered with others, and largest cluster only has 5 articles, which might be due to the low number of articles we have.

*Please provide us with your feedback on our products to boost your productivity and efficiency.*

# Try for yourself!

<https://huggingface.co/spaces/mindefdata/infohub> - Defence Articles

# Pipeline

