The Art of Questioning:
Look At Your Research Topic From Multiple Perspectives

WONG KAH WEI
kahwei@nus.edu.sg
Why this workshop?
What is this workshop all about?

Ask Questions --> Search for Answers --> Found Answers

Ask More Questions
YES/NO
Do you know what is climate change?
Is it a long spell of drought?
Is climate change bad?

WHAT?
What is climate change?
What is the difference between climate change and global warming?

WHERE?
Where does climate change happen?
Does it happen in Singapore or globally?

WHEN?
When did climate change happen?
When did it started getting so hot?
How often does it flood?
WHO?
Who is impacted by climate change?
Who said there is climate change?
Who is involved in climate change?

WHY?
Why does climate change happen?
Why are some people denying it?
Why should I care?

HOW?
How did climate change happen?
How does plastic waste affect the weather?
How does a drought in Australia affect us?

WHAT IF?
What if climate change is a hoax?
What if climate change is for real?
What if it stays this hot for 10 years?
What if nobody does anything?
What if I did something....
PESTLE analysis

Where to search?
How to search?

Search for Answers

Ask Questions

Found Answers

Ask More Questions
WHEN ASKING QUESTIONS, CONSIDER THESE FACTORS...

**PESTLE ANALYSIS**

- **POLITICAL**: Roles governments, political lobbies play
- **ECONOMIC**: Economic growth, industry influences
- **SOCIAL**: Education, cultural, lifestyle influences
- **TECHNOLOGY**: Advancement of technology
- **LEGAL**: Effectiveness of legal agreements
- **ENVIRONMENT**: How the environment is affected
## What keywords identify the factors?

<table>
<thead>
<tr>
<th>Category</th>
<th>Keywords</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political</td>
<td>Government, policies, master plans, etc</td>
</tr>
<tr>
<td></td>
<td>Government bodies, PUB, Nparks, LTA, etc</td>
</tr>
<tr>
<td></td>
<td>Political lobbies, influences, etc</td>
</tr>
<tr>
<td></td>
<td>PAP, Worker’s Party, Republicans, Democrats, etc</td>
</tr>
<tr>
<td>Economic</td>
<td>Economic growth, economy, inflation, etc</td>
</tr>
<tr>
<td></td>
<td>ExxonMobil, fossil fuel industries, corporations, etc</td>
</tr>
<tr>
<td></td>
<td>Cost, expenditure, profit, loss, etc</td>
</tr>
<tr>
<td>Social</td>
<td>Population, elderly, women, teens, etc</td>
</tr>
<tr>
<td></td>
<td>Middle-income, professionals, etc</td>
</tr>
<tr>
<td></td>
<td>Education, awareness, lifestyles, habits, etc</td>
</tr>
<tr>
<td>Technology</td>
<td>Technology, devices, methods, processes</td>
</tr>
<tr>
<td>Legal</td>
<td>Laws, legislation, agreement, regulation, mandatory, etc</td>
</tr>
<tr>
<td>Environment</td>
<td>Land, air, water, space, etc</td>
</tr>
</tbody>
</table>
Individual Activity
Frame & scope topic

I want to find solutions to combat fake news.

I want to investigate the feasibility of 2 solutions:

1. An Artificial Intelligence robot which trawls Facebook pages to identify and delete hate content immediately.

2. An easy method users can apply to discern hate content quickly and not to spread it.
5W 1H
Environment
What If

5W 1H
Legal
What If

5W 1H
Technology
What If

5W 1H
Political
What If

5W 1H
Economic
What If

5W 1H
Social
What If

Where

Why

How

Artificial Intelligence
robot

What

Who

When

What If
## Technology factor

1. **Artificial intelligence robot to identify hate words in Facebook and delete these posts.**
   - **Question:** Has this Artificial Intelligence robot been invented? Is there a patent for it?
   - **Keywords:** Artificial intelligence Identify Hate Facebook posts
   - **Source to search in:** Patsnap USPTO Lens
   - **Searches:** “Artificial intelligence” And identif* And (Hate or bigot*) And (Facebook w/5 post*)
   - **Answer & source:**

<table>
<thead>
<tr>
<th>QUESTIONING</th>
<th>SEARCHING FOR ANSWERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solution suggested</td>
<td>Question</td>
</tr>
<tr>
<td>Question</td>
<td>Keywords</td>
</tr>
<tr>
<td>Source to search in</td>
<td>Searches</td>
</tr>
<tr>
<td>Answer &amp; source</td>
<td></td>
</tr>
</tbody>
</table>
YOUR FEEDBACK IS GREATLY APPRECIATED
j.mp/RU_Feedback
LIKE US ON FACEBOOK NUSLIBRARIES