

From Data to Story: Data-driven Storytelling Process

A journey to organizing a data-driven
storytelling





What we will cover...

- What is a story?
- Why data storytelling?
- How a data story is organized?
- Showcase of data story production process
- What to keep in mind...

What is a Story?



Story is a series of events being told or written for the audiences

Story can be **factual** or **fictional**.

Story can be produced for **various purposes**: entertain, inspire, raise awareness, trigger interest or curiosity...etc.

A story has its **tellers** and **listeners**.

And we are all a **storyteller** and a **listener**.



If a story is not about the hearer, he
will not listen. And here I make a
rule—a great and interesting story is
about everyone or it will not last.

— *John Steinbeck* —

AZ QUOTES

*John Ernst Steinbeck Jr. (1902– 1968) was an American writer and the **1962 Nobel Prize in Literature winner** "for his realistic and imaginative writings, combining as they do sympathetic humor and keen social perception.*



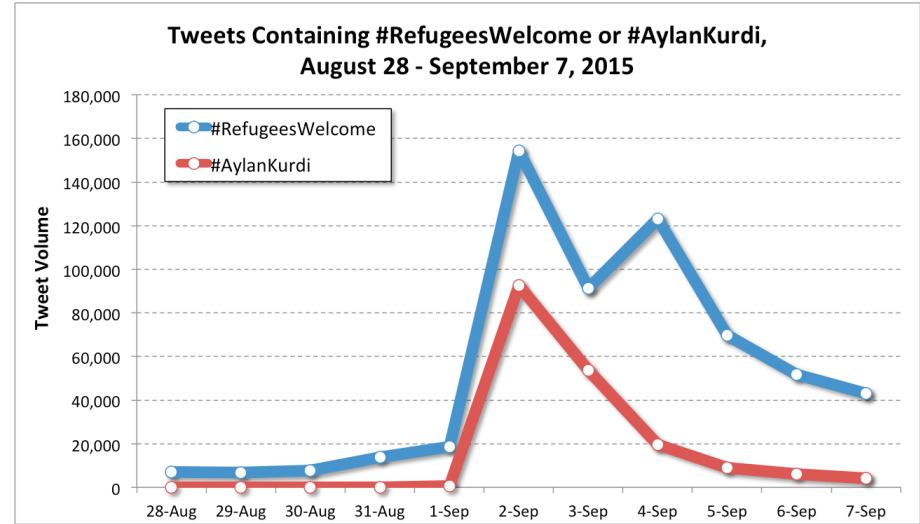
Why telling a story?

People love to hear story, especially story about themselves .

Story evokes feeling and thinking .

A factual story is powerful that could drive certain actions .

A story of Syrian refugee crisis



This picture of the corpse of a Syrian laying face off the shore depict a story about Syrian refugee crisis. It invokes immense people's attention around the world.

Why Data Storytelling?



Why Data Storytelling?

The flesh of the story is information.

Data is hard fact where we can generate factual information. And in this digital world, there are vast amounts of data generated and distributed globally.

Then, data storytelling is about telling a story from data-driven information.

So, a data story is factual, evidence-based, and concrete.

Simply put, we CANNOT tell a data story WITHOUT sufficient DATA.



How a data story could look like?

- Article
- Visualization
- Infographic
- Interactive dashboard
- ...



How a data story could look like?

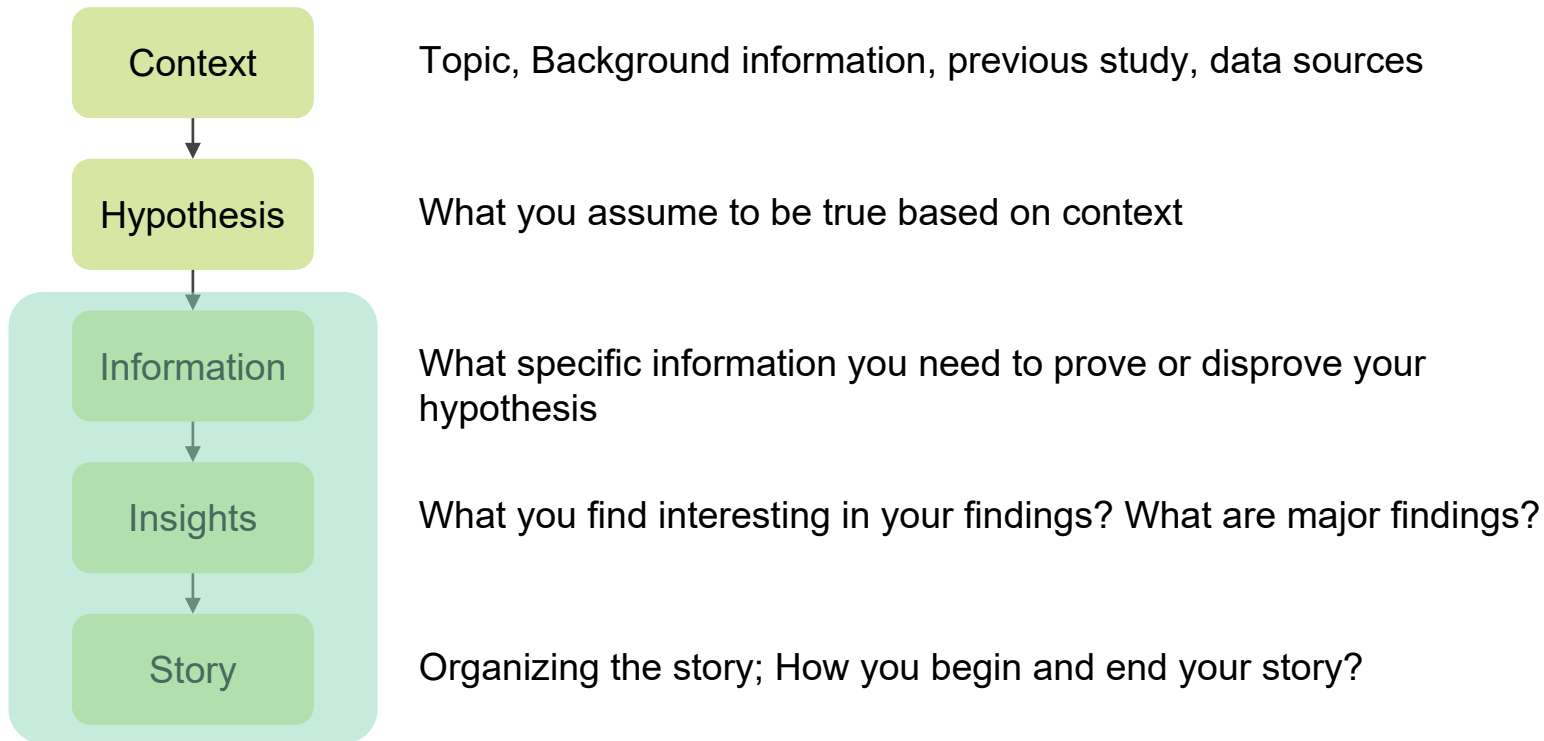
- Article
- Visualization
- Infographic
- Interactive dashboard
- ...

Well, anything that tells stories...!

How a Data Story is organized?



Journey of producing data story





How data is cooked into story

Story is a well -structured and well -organized of insights.

Insight is actionable information that are usually generated from analyzed and synthesized data findings .

Thus, producing a data story requires to synthesize data findings to gain insights and organize those insights to a story.



From data to insight, from insight to story

1. Consider your **hypothesis**: what you assume to be true.
2. **Map out** all of your findings about your story.
3. **Group and cluster** those findings into section where each section represent one insight into an issue.
4. **Organize** those insight into a story.



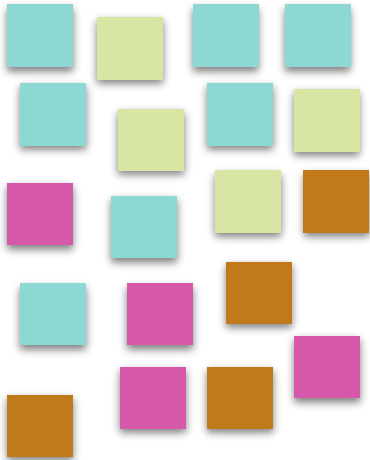
From data to story

Hypothesis



From data to story

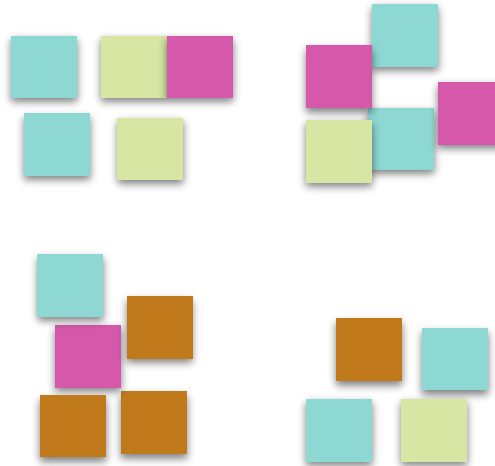
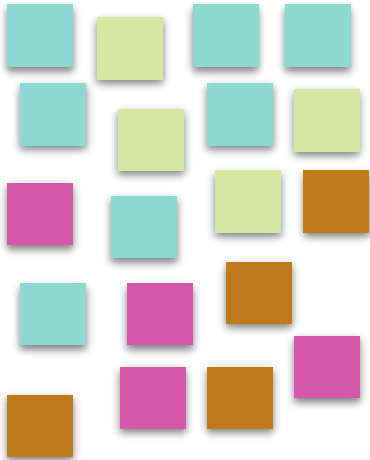
Hypothesis





From data to story

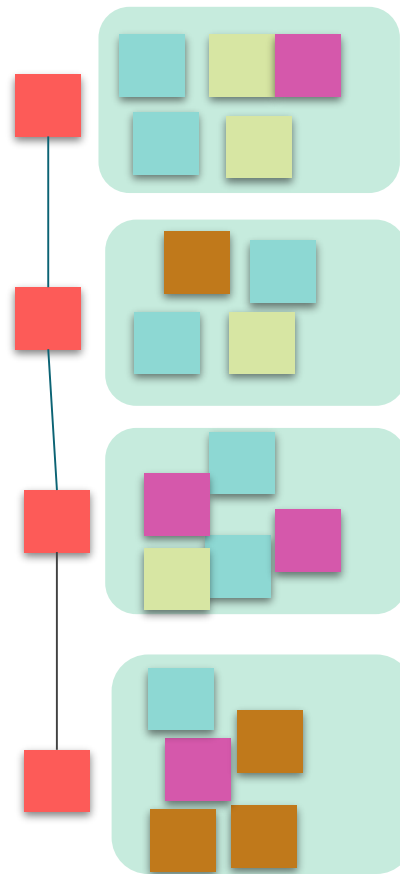
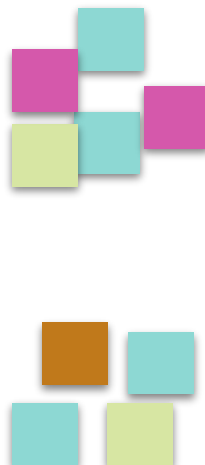
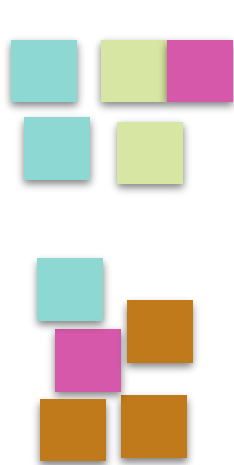
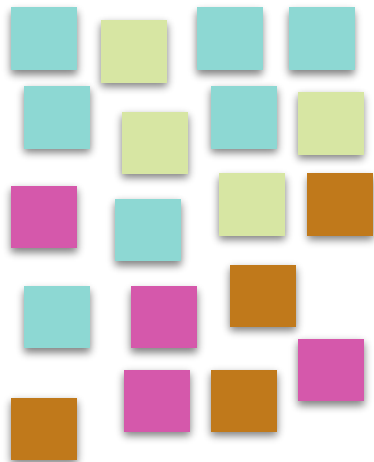
Hypothesis





From data to story

Hypothesis





From data to story

Let consider “**Cambodia Education** ” story

Make it specific! “**Primary Education in Cambodia** ”

Hypothesis: “ *Student perform poorly due to teacher’s lack of skill and training support* ”

Then, ***ANALYSING DATA***

Map out your findings

4 out of 15
second graders
can pass that for
grade 2

Fewer than 1 out
15 of the third
graders can
pass that for
grade 3.

Over 5 out of 15
first graders can
pass the math
test for grade 1

2 out of 5
students can
pass the Grade
1 mathematics
test.

2 out of 7
students can
pass the grade 3
mathematics
test.

2 out of 10
student pass
rate of Grade 3
in Bavel

3 out of 10
student pass
rates of Grade 1
in Thmor Kol

1 out of 14
Thmor Kol
students pass
rate on the math
in Grade 3

5 out of 10
teachers are
able to solve
word problems,
the smallest
pass rate among
content areas.

1 out of 50
teachers
mastered all the
six teaching
skills.

7 out of 10
teachers scored
at least half point
on the basic
math
assessment.

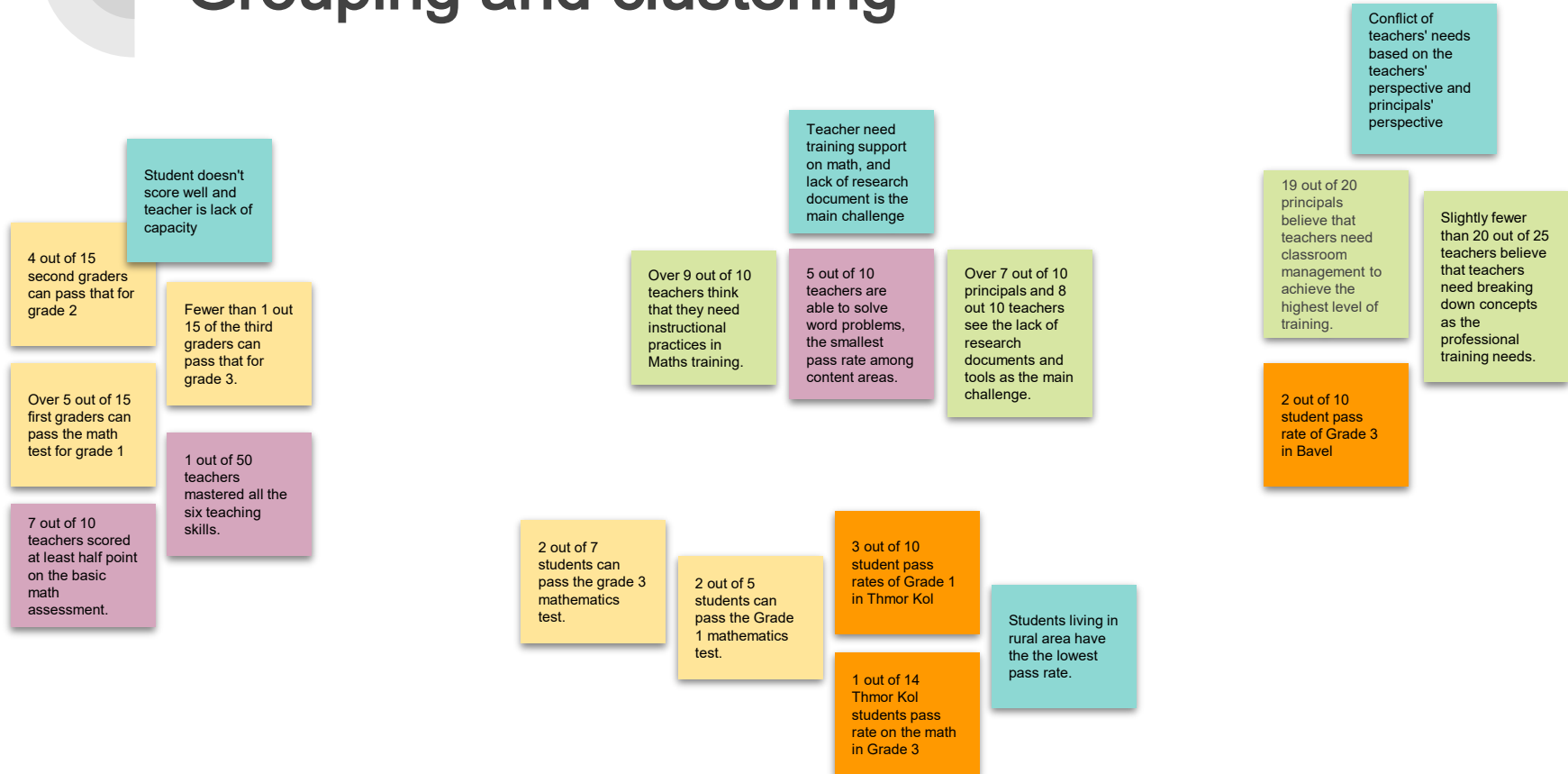
19 out of 20
principals
believe that
teachers need
classroom
management to
achieve the
highest level of
training.

Slightly fewer
than 20 out of 25
teachers believe
that teachers
need breaking
down concepts
as the
professional
training needs.

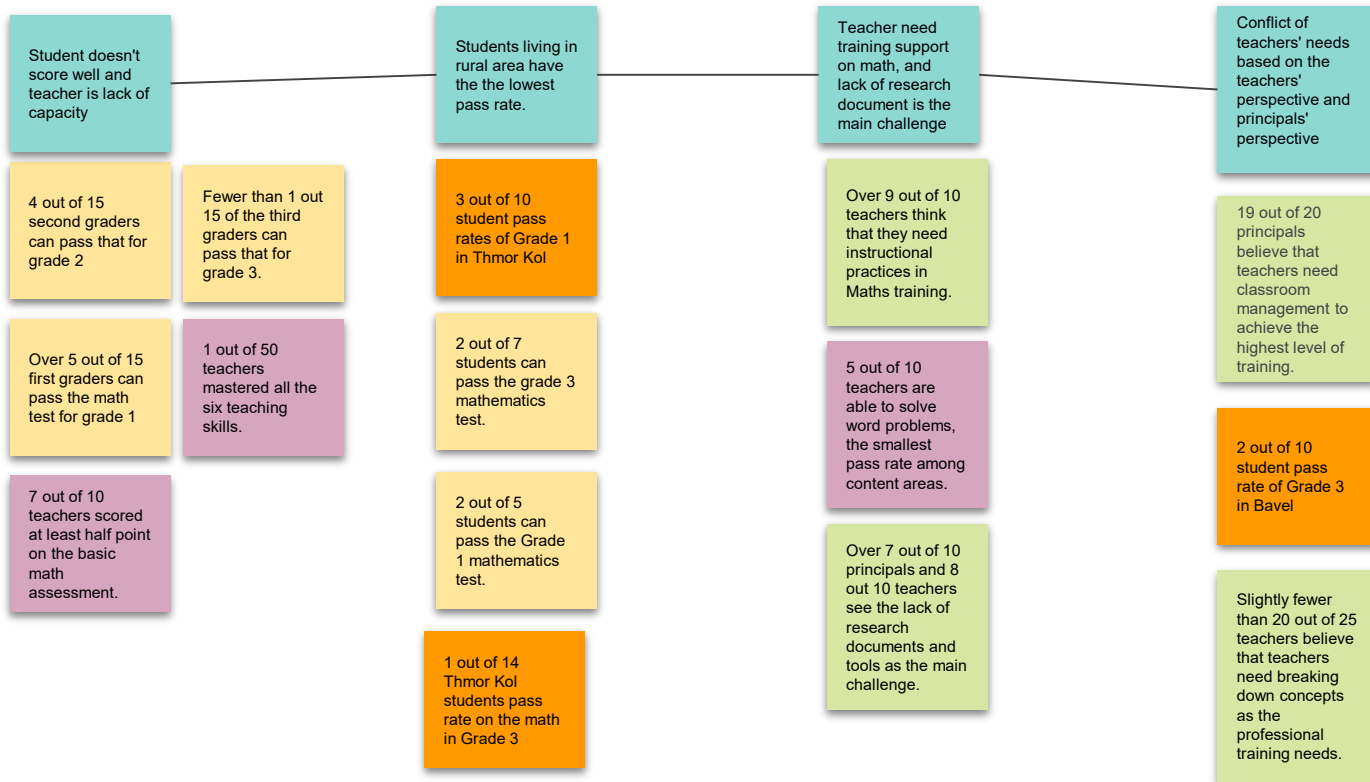
Over 9 out of 10
teachers think
that they need
instructional
practices in
Maths training.

Over 7 out of 10
principals and 8
out 10 teachers
see the lack of
research
documents and
tools as the main
challenge.

Grouping and clustering



Organize the clustered insights to story



Some showcases of data story production process

How you produce a story in your way?



Cambodia's Fish Catch Numbers Don't Add Up for Fishers

1. Choosing a topic and narrow into subtopic
2. Masterfile: a system to organize your story production process
3. Use sticky notes to map out and organize the story (story structure)
4. Write the story
5. Transfer it to the publishing platform

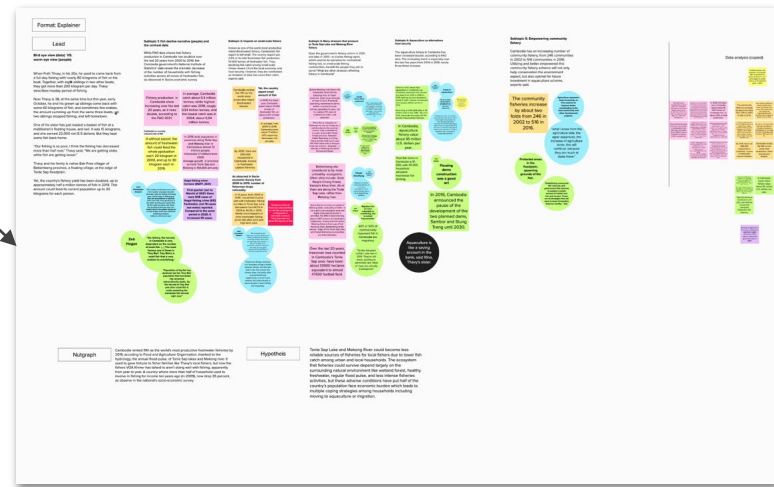


Cambodia's Fish Catch Numbers Don't Add Up for Fishers

- [Published story](#)
- [Masterfile](#)
- [Story structure](#)



A		B		C		D							
Topic		Subtopic											
Fishery is steady, But Less Fisher. And, It's not Sustainable.		As inland fisheries in Cambodia is shrinking, what does it means for the country local fishers and fisheries industry?											
Case Studies: Data Journalism Examples (Global)		Article	Link			Notes (relevance to your top							
Look for other data journalists who have covered the same topic you are interested in another country. Try IndiaSpend, Live Mint, Dataphyte, Nation Newsplex, Malaysiakini, https://docs.google.com/spreadsheets/d/YT2mgMaLR7gVWw57LQK5eBumA8dm7u9fAjqmX6p/edit?usp=sharing http://sigmaawards.org/projects/		Troubled waters: Why Pasir Gudang rivers are dying	https://pages.malaysiakini.com/ohorriver/en/										
		Drowning in plastic: Visualising the world's addiction to plastic bottles	https://graphics.reuters.com/ENVIRONMENT-PLASTIC/0100B275155/index.html										
		Born to fly: The life, journey, and trials of a migratory bird	https://kontinentalist.com/stories/spoon-billed-sandpiper-migratory-bird-conservation-yell										
Case Studies: Data Journalism Examples (Global)		Conclusion											
Look for local media coverage of your topic to you know what conversation people are having and what information they need and want.		The graphic explaining the plastic bottle waste by comparing to how big/how high the well-known cities is quite impressive. This give an idea of visualizing fish loss from year to year to											
		The Malaysiakini did great job and very detailed tracking the targetted place of water pollution, give me a good guidance to look at, or include, cases of industrial waste issue surrounding Tonle Sap Lake and its tributaries. Some cases of poisonous are still unreported of its reasons.											
		Short clips interviews from the local in story of Pasir Gudang rivers pollution is powerful. By using just "voice" of the impacted local villagers, it gives powerful inputs to highlight the data											
		Beautiful migratory birdst gives me hint on fish migration and its calenda visualization. Good combination with the plastic bottle above for presenting fish loss.											
Case Studies: Topical Examples (Local)		Article	Link			Notes (relevance to your top							
Look for local media coverage of your topic to you know what conversation people are having and what information they need and want.		Tonle Sap Lake, the beating heart of the Mekong basin, is on 'life support'	https://www.channelnewsasia.com/asia/tonle-sap-cambodia-mekong-low-water-level-dar										
		Mekong Wonders	https://dim.maps.arcgis.com/apps/Cascade/index.html?appid=d8bab8d4aeb54769cea56										
		MAFF 2021	https://www.facebook.com/maff.gov.kh/photos/a.688683411169864/5151577161547123										
+ ■ Background ▾		Revised_Hypothesis and Questions ▾		Analysis ▾		Visualization ▾		Interviews ▾		Story Structure ▾		+	





About Masterfile

- Masterfile is a **tool or system** for implementing story production process.
- It is used for documenting and tracking the process of story from the start to finish.
- You can well manage your story project without getting lost and confused.
- Importantly, it works best collaborative process



About Story Structure

- It is your second brain that store the data findings.
- It allow you to capture and visualize your thought
- It allow for making relationship between each bit of information to extract insight
- Ultimately, it allow for organizing insights into story.



What to keep in mind
when producing data
story...



Make sure you know your story well

First thing is asking “Is there a story about the topic you choose?”

Ask yourself, what is the story you’re trying to tell.

What insight that should be memorable for the audiences.

Remember, data -driven story is not data -decorated story.