Show me the data!

Week17: Advanced Data Project

Big Data & Social Analysis R

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Taiwan Mobility in Soft Lockdown

01 Taiwan Mobility in Soft Lockdown

Introduction

On May 15th, 2021, Taiwan CDC has raised epidemic warning to Level 3 in Taipei and New Taipei

01 Taiwan Mobility in Soft Lockdown

Introduction

Level 3 in Taiwan can be treated as soft lockdown.

Pictures were posted by many social media users sharing the empty streets as citizens practice self-hard-lockdown.

Is the description true? How we measure the lockdown by data?

01 Taiwan Mobility in Soft Lockdown

Data Journalism process

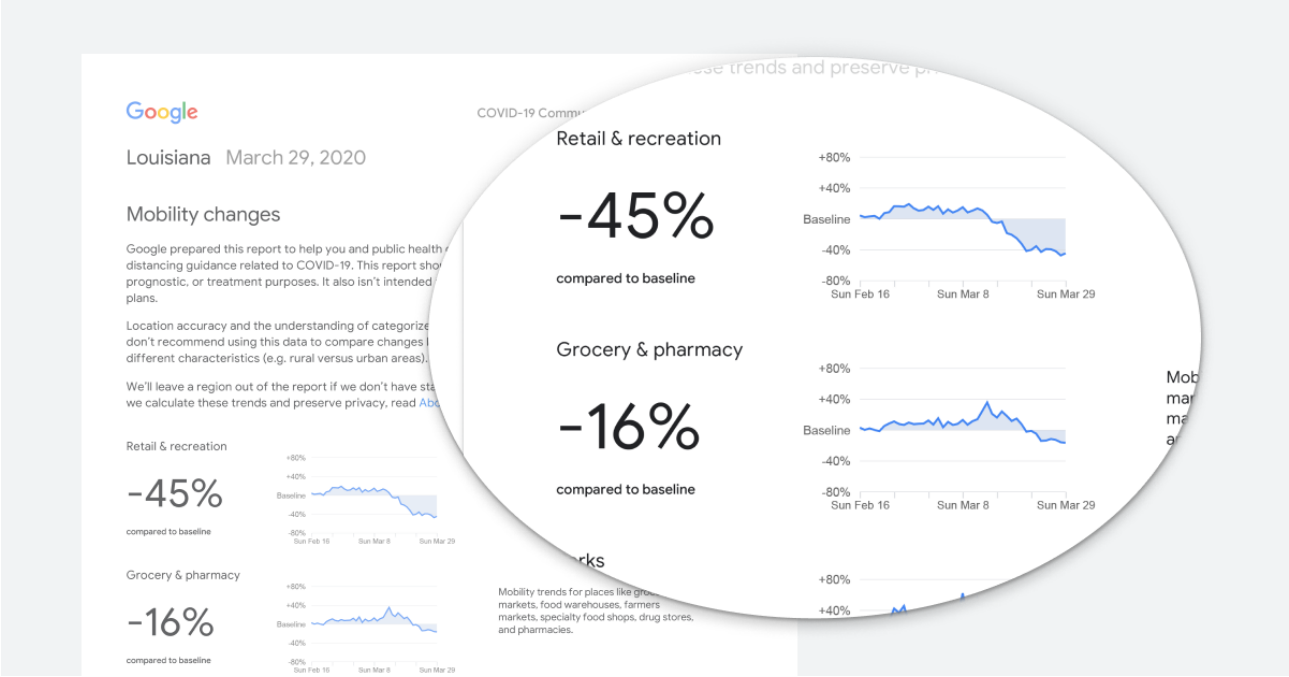
1. Raise question
2. Data evaluation
3. Narrow down question
4. Design approaches to demonstrate the question
5. Develop six steps of the data project
6. Design the division of labor
7. Design the timeline

01 Taiwan Mobility in Soft Lockdown

2. Data Evaluation

If you are familiar with data projects, you immediately think two datasets:

1. **Google COVID-19 Community Mobility Reports**
2. **Apple Mobility Trends**

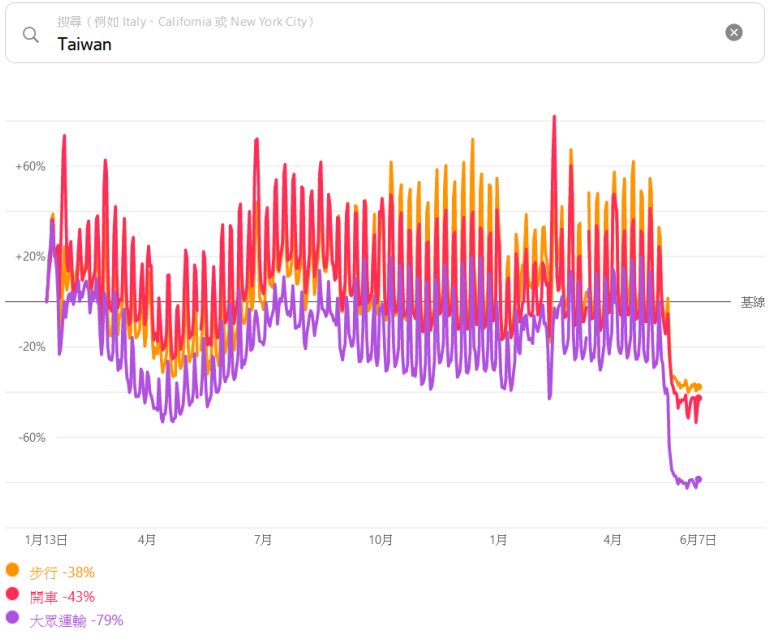


01 Taiwan Mobility in Soft Lockdown

2. Data Evaluation

Google and apple aggregated sets of data from users who have turned on the location history.

They provide clean and structured csv files from Jan 2020-present



01 Taiwan Mobility in Soft Lockdown

3. Narrow Down Question

My data project attempts to demonstrate the extent to which Taiwan's mobility in level 3 was similar to hard lockdown.

01 Taiwan Mobility in Soft Lockdown

4. Design Approaches to Demonstrate the Question

If your data journalism project attempts to demonstrate the extent to which Taiwan's mobility in level 3 was similar to hard lockdown, how many kinds of data analyses you need to do?

1. **How to define hard lockdown?**
2. **How to collect data to measure hard and soft lockdown?**
3. **How to measure the mobility in hard and soft lockdown?**

01 Taiwan Mobility in Soft Lockdown

5. Develop Six Steps of the Data Project

I submitted a proposal to the initium's chief editor for Taiwan on May 16th, 2021:

1. **Using google and apple's mobility data to evaluate Taiwan soft lockdown's mobility.**

2. **Comparing Taiwan lockdown with other countries' lockdown. Analyzing Taiwan cities' lockdown.**

3. **The division of labor in this data project**

01 Taiwan Mobility in Soft Lockdown

5. Develop Six Steps of the Data Project

- Evaluate Taiwan soft lockdown

Analysis

- Time series analysis

Visualization

- Line plots

Data presentation

Identify goals and plans

Data collection

Data cleaning

Data analysis

Writing report

Data Sources

- Google and apple mobility tread data

Data Cleaning

- Transform to time series format

Report

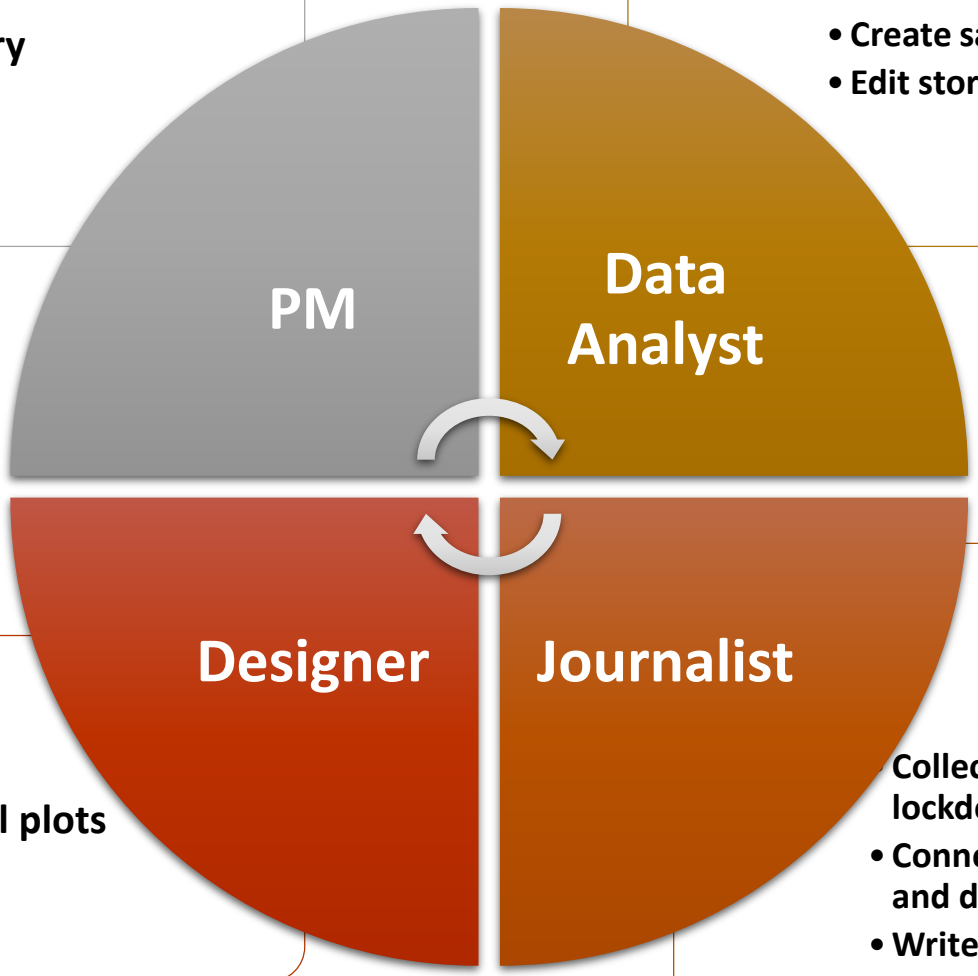
- News story

01 Taiwan Mobility in Soft Lockdown

6. Design the division of labor

- Ensure the process
- Write story

- Clean data
- Establish models
- Create sample plots
- Edit story



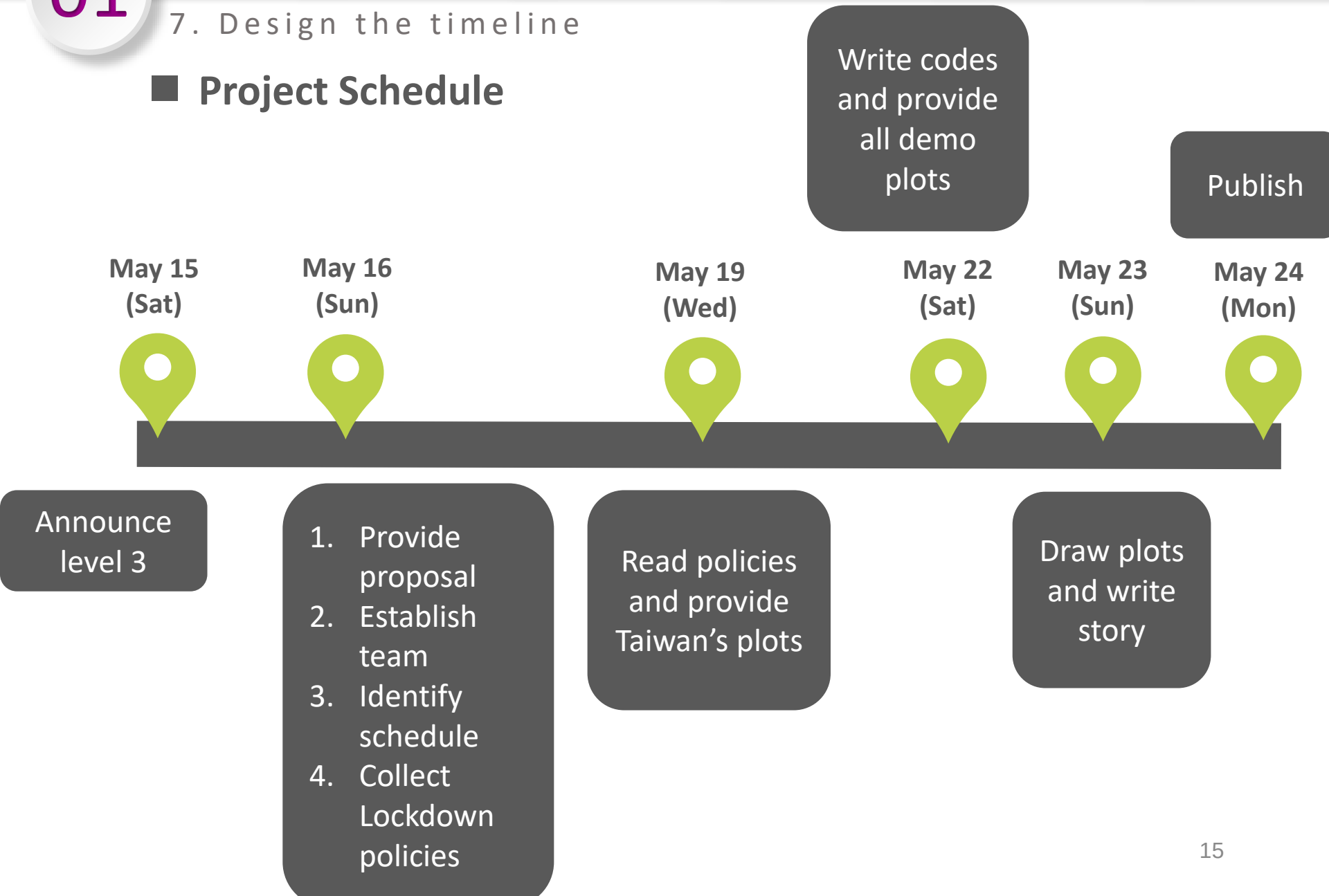
- Draw final plots

- Collect countries' lockdown info.
- Connect data analyst and designer
- Write story

01 Taiwan Mobility in Soft Lockdown

7. Design the timeline

Project Schedule



01 Taiwan Mobility in Soft Lockdown

Introduction

Apple and google mobility trends are typical time series data:

A collection of observations obtained through repeated measurements over time.

Let's go to Week 17.R to learn how to analyze time series data.

Capstone Course

02 Capstone Course

Capstone: Practice of Data Analysis in Fall 2022

International College of INNOVATION
National Chengchi University
國立政治大學創新國際學院

天下雜誌 CommonWealth Magazine

ESC 政治大學選舉研究中心
Election Study Center, National Chengchi University

For producing high quality data journalisms for Taiwanese local election on November 26th, ICI, CommonWealth, one of leading economic and political magazines in Taiwan, and Election Study Center, open a data journalism course in ICI this Fall.

02 Capstone Course

Practice

An intensive practice course to produce TW election data journalisms in the end of Nov.

Goal

To train students as professional data scientists and journalists.

Publish

The edited products* will be published in CommonWealth website (https://english.cw.com.tw/)

*CommonWealth has the right to edit the work at any time and has the right to publish and promote the work in suitable style and to fix or alter title.

02 Capstone Course

This course is exclusive to students who have taken my two courses: Data Science and Big Data for Social Analysis.

The participants will be trained by me, CommonWealth, and Election Study Center from September – November 2022

02 Capstone Course

Initial Schedule:

Date	Description
08/15 – 09/11	Online coding skill training
09/15, 17, 18, 22	Workshop*
09/26 – 10/13	Produce project proposals (Report proposal on 10/13*)
10/14 – 11/17	Carry out projects
11/18 – 11/24	Rehearsal
11/24	Final check*
11/26	Election day
11/26 – 11/28	Produce results*

Every Thursday 9-12 is the project meeting.
Every student should attend to report progresses.

Final Presentation

03 Final Presentation

Items	Points	%
Final Presentation	200	15.38%

- **Week 18, we will have a online joint presentation in Gather Town on June 15 (Wed.) 11:00am – 1:20pm.**
- **Every team has a booth and uses a poster to present your final project.**

03 Final Presentation

Poster's size is A1 (59.4 cm × 84.1 cm). You can design your poster in Powerpoint then **export it to a jpeg or png file**.

You should email your poster file to Bethany (pinyuliang08@gmail.com) before 9:00 pm, June 14 and CC to me. Bethany will help you to put your poster into your Gather's booth.

After you email your file, Bethany will reply you immediately and to ensure your file format is correct. **If you do not receive Bethany's reply, you should contact Bethany and me as soon as possible.**

03 Final Presentation

Bethany is still establishing our Gather space. When she finish our space, I will email you the map of the space and your booth's location.

03 Final Presentation

Your final presentation should provide the following information:

1. Introduction: Introducing your data project to us, including your research questions.

2. Data sources: Providing information about your data sources, where they come from and how you clean them.

3. Models: Describing the models you use.

4. Results: Using texts, tables, or plots to show and explain your results and findings.

5. Conclusion: Telling us the contributions of your project's finding, such as suggestions for regulations, solutions for problems, or information for the public.

Final Paper

04 Final Paper

Items	Points	%
Final Paper	350	26.92%

- The final reports should be submitted to my mailbox or emailed before the deadline.
- **If your team has a member who graduates this semester, you should submit your final paper on June 22.** Other teams who do not involve fresh graduates can submit the final papers on July 15.

1. A4 10 pages (not include reference)
2. Times New Roman 12pt
3. Double spaces
4. Margin 1 inch

04 Final Paper

- The structure of the final paper is like the final presentation structure I mention above. You can develop the content of your presentation into the final papers.

- However, you should follow my comments during the final presentation to adjust the unclear parts in your presentation.

- You should attatch your R code file and raw data (raw data can provide the link) when you email your final paper.