

1S 2022-2023

# DEVC 127

## LESSON 7

NARRATIVE  
PATTERNS

**RIKKI LEE MENDIOLA**

Lecturer, DDJ



# today

today in data

narrative patterns

this week

# today in data

## Consumer loans profile in PH

Consumer loans: residential real estate loans, motor vehicle loans, credit card loans, salary based general purpose consumption loans, and other loans granted to individuals to finance **other personal and household needs**

# context and objectives

## situation

Financial inclusion is one of the key areas of development in the finance sector. This means “a state in which everyone, especially the vulnerable sectors, has effective access to a wide range of financial services.” (NSFI, 2022)

Farmers or workers in the agriculture sector had the highest financial exclusion in 2021

E- money accounts dominate account ownership in PH, 8% to 36% (2019, 2021)

## objective

Identify borrower's profile who are most likely to default on their loan

# methodology

## key question

What are the profiles of customers who default on their consumer loans?

### data source

Consumer loans applications data from a PH based credit company

### exploratory analysis

Explored groups with highest loan default rates

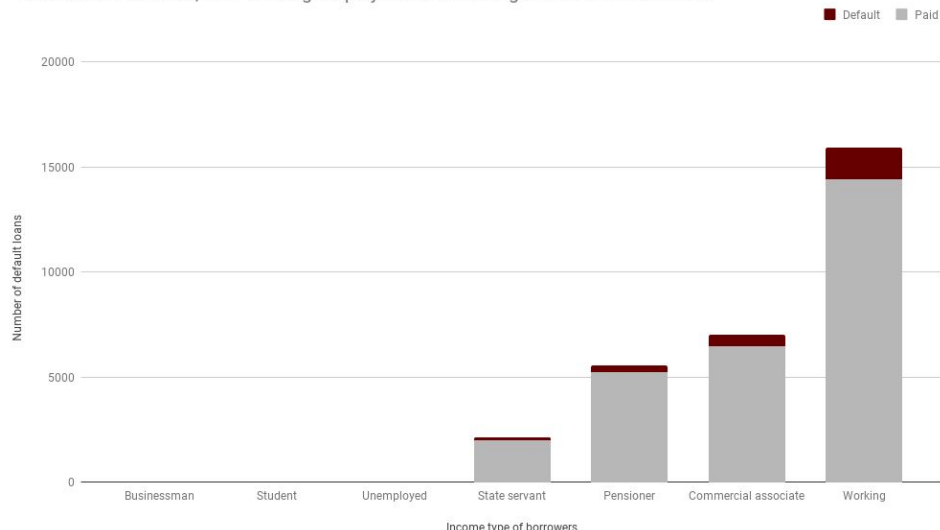
Deep dive on the group with the highest loan default

### core recommendations

Deep dive on location based analysis to explore demand on loans and industry profiles

# 34% of applicants who default on their loan belong to the lowest income bracket

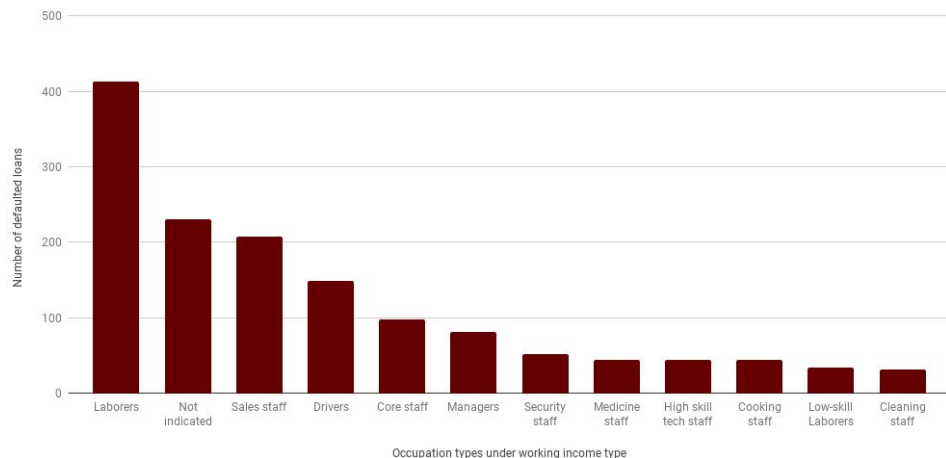
Loan default is at 8%, with working employees have the highest default rate at 7%



- Default rate is the highest among working employees
- Applicants who default on their loan with income between P 25,650 - P 112,500 allot more than 20% of their income on loan payment (23% on the average)

# 51% of laborers are male with secondary level education

Among working occupation types, laborers have the highest default loans



- Most of the laborers who default on their loan are male and come from regions with 2 ratings
- They also belong to the lower half income brackets
- Majority also achieved below higher education level

# next steps

## summary of findings

Majority of borrowers are from working class families within low income brackets

Loan default rate is at 8%

Profile of borrowers who will most likely default on their loans: male laborers with secondary education

## unresolved questions

What are the descriptions of the organization types?  
This data point can help explore industries.

How can region ratings be converted to actual regions?  
This data point can help location based analysis.



# what's your anchor?

DATA



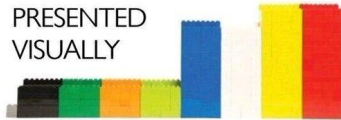
SORTED



ARRANGED



PRESENTED  
VISUALLY



EXPLAINED  
WITH A STORY



# how do i put it all together?

# narrative patterns

- Story - all of the events in a narrative, those presented directly to an audience and those which might be inferred
- Narrative - 'telling' of a sequence of events shaping the events, characters, arrangement of time, etc. in very particular ways so as to invite particular positions towards the story on the part of the audience (can be linear, non linear)

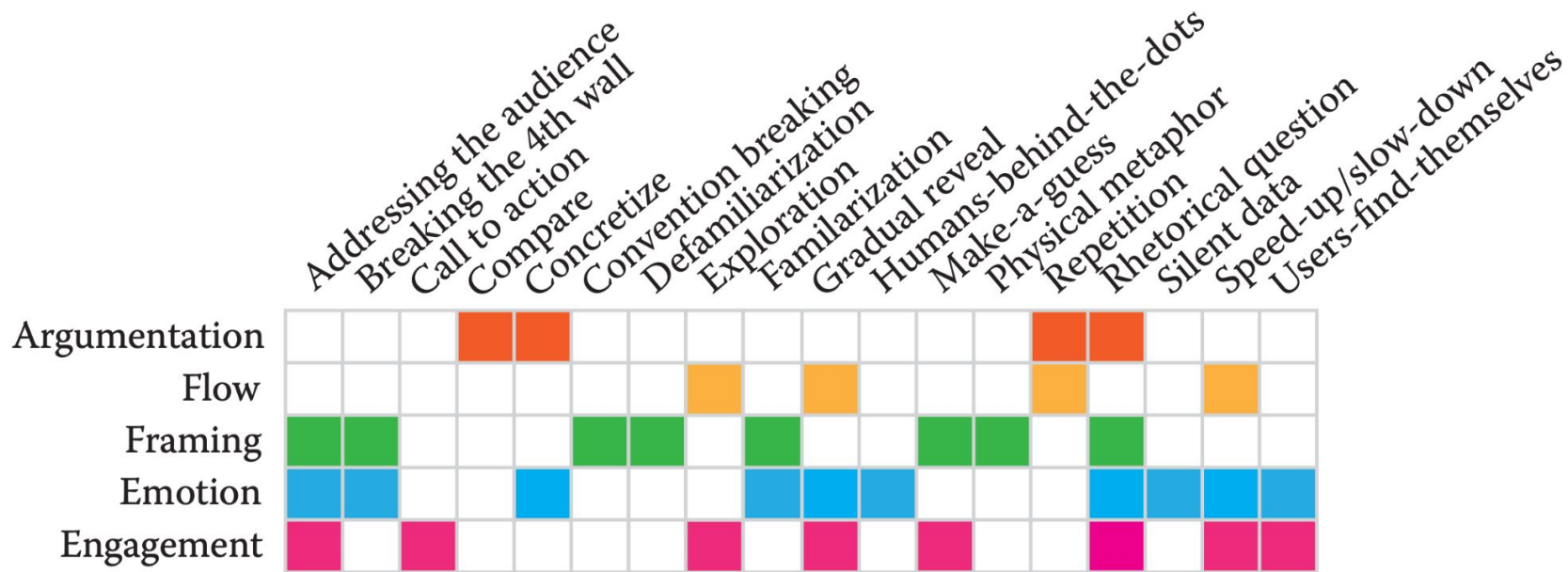
# narrative patterns

- **Gives shape** to the unfolding events in a story, with the goal of making them clear and compelling to an audience
- Creating compelling narratives is a labor-intensive process that requires expertise, creativity, iterations, and feedback
  - deep understanding and creative use of media
  - a sense for explaining, convincing, persuading, and engaging audiences

# narrative patterns

- a low-level narrative device that serves a specific intent
- can be used individually or in combination with others to give form to a story

# narrative patterns



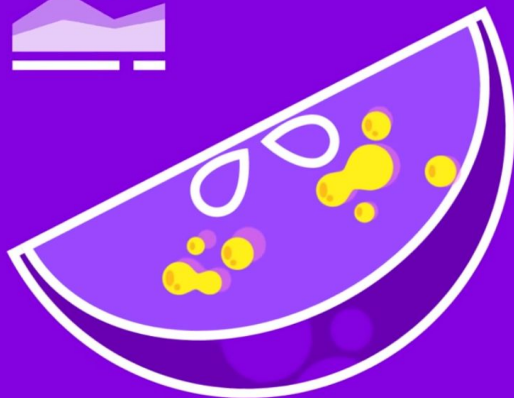
# narrative patterns

- A story
- An idea of who your audience is
- To know the effect your story and narration should have on that audience. This can include sympathy or distaste, encouragement for action, information, explanation, and so on.

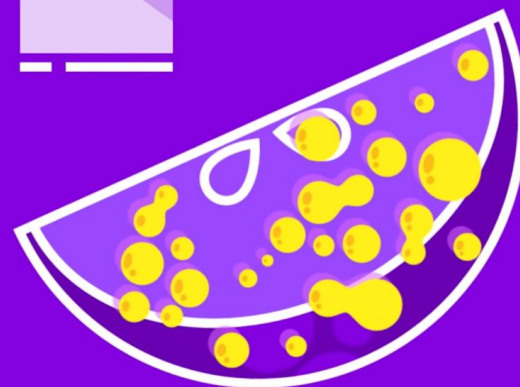
# patterns for argumentation

- action or process of reasoning systematically in support of an idea, action, or theory
- serve the intent of persuading and convincing audiences
- different ways to present, support, reinforce, contradict, or discuss a given message
- techniques: compare, concretize, repetition





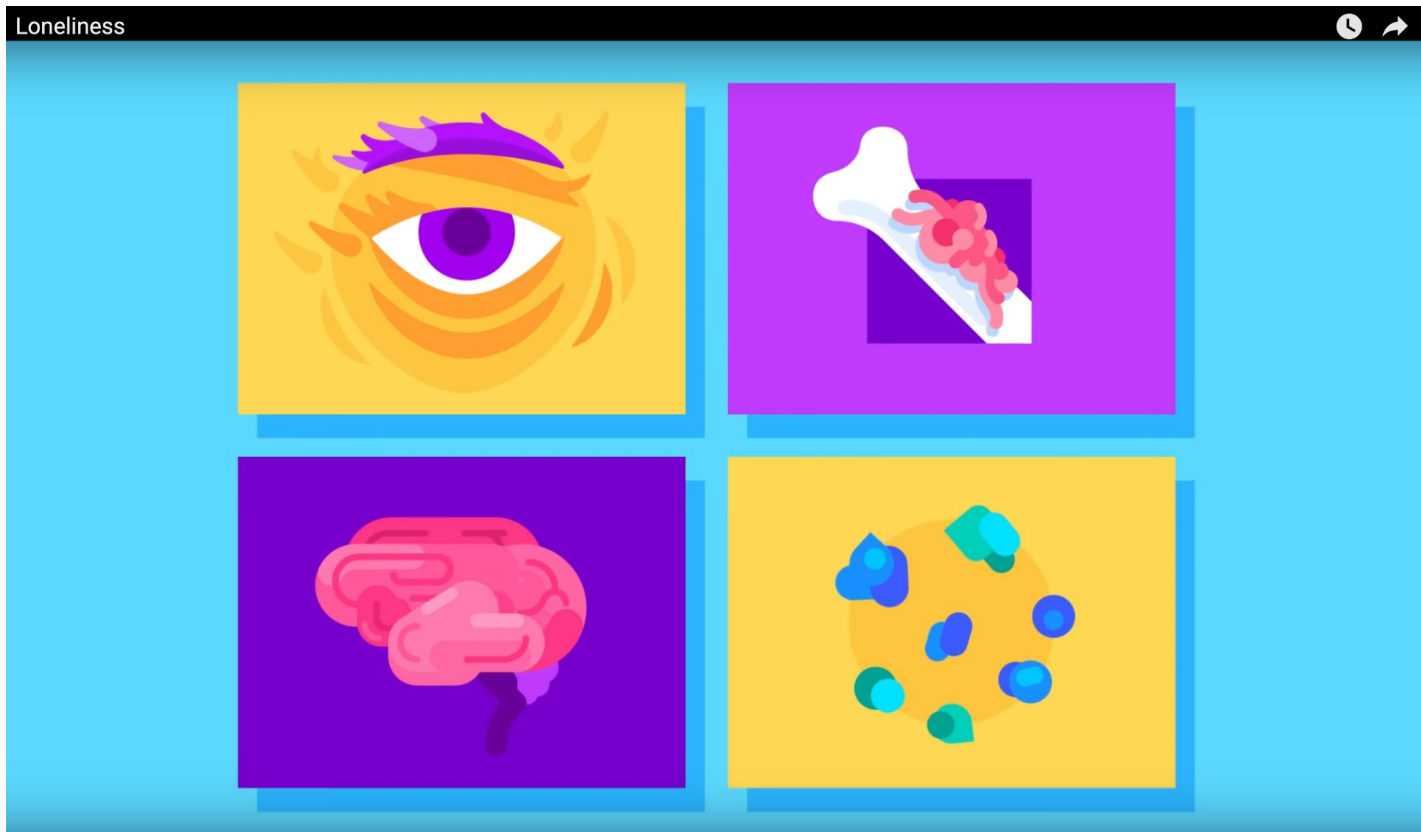
**ORGANIC**



**CONVENTIONAL**

► EFSA Journal, 2017

<https://www.youtube.com/watch?v=8PmM6SUn7Es>

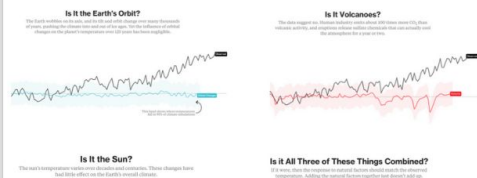


[https://www.youtube.com/watch?v=n3Xv\\_g3g-mA](https://www.youtube.com/watch?v=n3Xv_g3g-mA)

# patterns for flow

- devices that help structure the sequencing of messages and arguments
- reveal - elements are progressively revealed, eventually leading to the whole picture and the final argument
- techniques: reveal, repetition, gradual reveal

## Repetition



### HOW

A phenomenon is re-presented multiple times with changes to the main variable/dimension (the data) or the time frame or the animation pattern (see the example) while other elements of the story don't change. Note: this could be like running multiple simulations with the data to see which is most effective (and in this case, the story would be more reader driven)

### WHY

To show that the same phenomenon happens over and over again. It also strengthens the narrative through rhythm. Establishing a constant reference frame can help to emphasize change and differences.

### EXAMPLE

[Bloomberg: What's really warming the world?](#)

## Gradual visual reveal



### HOW

Use visual hierarchy to control sequence of perception of individual elements

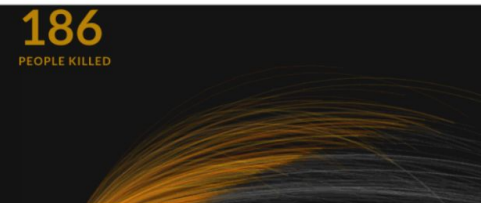
### WHY

Lets the story unfold in the viewer's mind while they read the graphic. to chunk the material to make it easier to absorb

### EXAMPLE

[New York Times graphics: How Gun Traffickers Get Around State Gun Laws](#)

## Speeding up



### HOW

Increase speed over time

### WHY

To give the feeling of acceleration, increased momentum, urgency. To transition from the individual to the group; to surprise with change in perspective; to exploit the learned interpretation of the early slow depictions.

### EXAMPLE

[Periscope: US Gun Deaths](#)

# patterns for framing the narrative

- builds the way facts and events in a story are perceived and understood through narration
- feeds on the audience's expectations, but it can also play with those expectations and go against them to create surprise
- techniques: familiar setting, make-a-guess, defamiliarization, convention breaking, silent data, physical metaphors

## Make a guess

Draw your line on the chart below

Percent of children who attended college



### HOW

Enable the viewer to guess what insight they might find. If no interaction: interrupt the narrative with a question directly addressed to the viewer and provide the answer after. If interaction: prompt the user with an entry form.

### WHY

Stimulates the viewer's curiosity, and possibly leads to a game-like experience. To engage the reader in causal reasoning about the phenomenon.

### EXAMPLE

New York Times graphics: You draw it — how family income affects childrens' college chances

## Rhetorical question

Can You Live on the Minimum Wage?

by [Robert Altmeyer](#) / FEB 14, 2014

More than 4.8 million workers now earn the lowest legal pay. This calculator, for a single childless worker, shows the hard choices that have to be made living on the smallest paycheck.

Start by choosing your state:

The minimum wage in New York is **\$8.00** an hour. Tally your living expenses by entering what you think is the least you need for each item. You may find that even your rock-bottom expenses aren't met and that you have to work more hours, pay your bills late, borrow money or do without. [Return to menu](#)

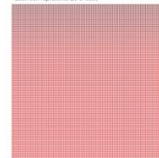
### Housing

Enter monthly rent or mortgage payments (and don't forget insurance, if this is just something that you would expect to pay for a modest apartment or home in your area.)

\$ 1200 Monthly

**\$14,000** in debt per year  
Or, 34 more hours a week at a second job

\* Each box represents \$1 of cost



### HOW

Title the piece using a question that makes a point.

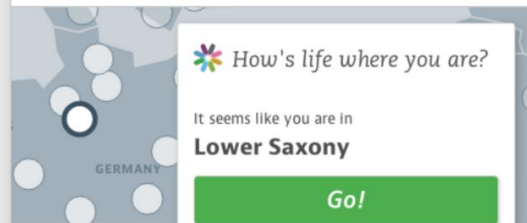
### WHY

Implicitly drives the viewer to the takeaway of a more open ended/exploratory piece.

### EXAMPLE

New York Times graphics: Can you live on the minimum wage?

## Familiar Setting



### HOW

Embed the entry point of a narrative in an environment which the viewer is familiar with.

### WHY

To lower the entry barrier and make information personally relatable.

### EXAMPLE

OECD: Regional Well-Being

# patterns for empathy and emotion

- imaginative empathy: resituating and reorienting the reader's perspective while enhancing our ability to understand and share the feelings and experiences important in the story
- empathy engages us with the story content: we pay attention and we perceive and reflect on the message
- techniques: gradual reveal, humans-behind-the-dots

## Panama Papers The Power Players



### Mauricio Macri

President of Argentina (2015-present); Mayor of Buenos Aires (2007-2015)

#### Related countries

[Argentina](#)

Argentine President Mauricio Macri appeared headed for a business career, working his way up under the tutelage of his father, Italian-born business tycoon, Francisco Macri. But in 1991, he was kidnapped for ransom by federal police officers – a turning point that led him to politics. During his third term as president of the popular Boca Juniors soccer club, he founded the center-right party Commitment to Change, then represented Buenos Aires in the Congress from 2005 to 2007, was elected mayor in 2007 and elected President by a narrow margin in 2015, with promises to liberalize the economy and eliminate corruption.



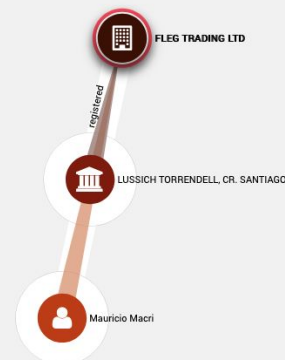
[Inside the Mossack Fonseca data](#) > Offshore company was a family affair  
[Read more...](#)

[Offshore glossary](#)

#### Response

Macri's official spokesman Ivan Pavlovsky said that the Argentine president didn't list Fleg Trading Ltd. as an asset because he had no capital participation in the company. The company, used to participate in interests in Brazil, was related to the family business group. "This is why Macri Macri was occasionally its director," he said, reiterating that Macri was not a shareholder.

Explore the data: **Mauricio Macri**



<https://www.icij.org/investigations/panama-papers/the-power-players/>



# patterns for engagement

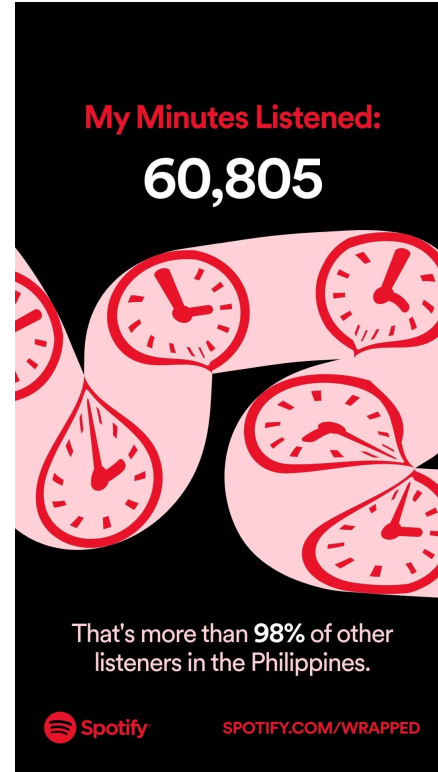
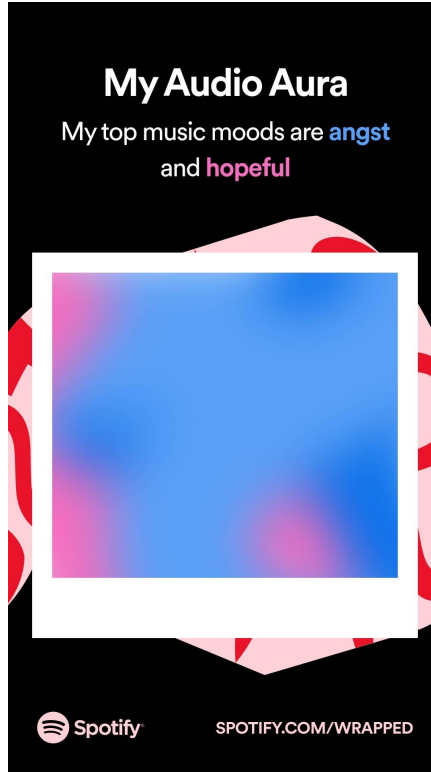
- the feeling of being part of the story, of being connected to it, and being in control over the interactions with the story's content
- techniques: emotion, a rhetorical question, call-to-action (passive); exploration (active)

FACT 1 OF 10

If you listen to pop music,  
you've likely heard **BINIBINI BY**  
**ZACK TABUDLO ▶**, the most  
popular song in Quezon City.



<https://pudding.cool/2021/04/music-bubble/>



Opinion

SHARE

## Can You Live on the Minimum Wage?

By JEREMY ASHKENAS FEB. 8, 2014

More than 4.8 million workers now earn the lowest legal pay. This calculator, for a single childless worker, shows the hard choices that have to be made living on the smallest paychecks.

Start by choosing your state: New York

The minimum wage in New York is \$15 an hour. But what you think is the bottom expenses aren't. You might have to borrow money or do without.



### Housing

Enter monthly rent or mortgage payment, if this is paid separately, for a modest apartment.



### Utilities and

Electricity, gas, heating oil, and other utilities.

Help Times journalists uncover the next big story.

Subscribe to The New York Times.

[SEE MY OPTIONS](#)Already a subscriber? [Log in](#)

The New York Times

**\$16,000** in yearly income<https://www.nytimes.com/interactive/2014/02/09/opinion/minimum-wage.html>

# notions of time

- **Authoring-time** the time when the story and its narration is created by the author
- **Presentation-time** - specifies the time at which a presenter presents the story to an audience, or the audience consumes the story, depending on the presentation medium
- **Data-time** - the third notion of time is the time indicated in the data itself

questions?  
clarifications?

# this week

- Don't forget! Review the recording from the last DDJ seminar of data viz
- Consultation: book via Calendly, will open slots to discuss lecture project and cleaning/analysis techniques
- Last sync! I'll be closing the course next week, but I'll be open for consults in January
  - Datawrapper demo, end of DEVC 127
  - Quick bonus assessment in class: 10 pts to project

1S 2022-2023

# DEVC 127

## LESSON 7

VISUALIZATION  
TECHNIQUES

**RIKKI LEE MENDIOLA**

Lecturer, DDJ

