



# **Teaching data literacy, advancing communicative justice with immigrant and refugee communities**

Open Door Collective Webinar  
October 27, 2023, 9:00am-10:00am PST  
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# About me

- Daughter of 1<sup>st</sup> generation immigrants from the Philippines
- Born and raised in Seaford, DE
- 30+ years in adult English language education
- Faculty (MA TESOL), San Francisco State University (established 1964)
  - Chair, English Department





National Center for the Study  
of Adult Learning and Literacy



Center for  
Vulnerable Populations  
Department of Medicine

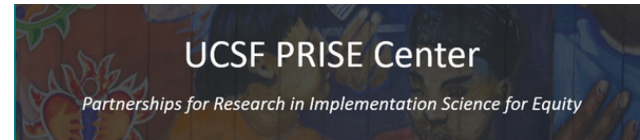
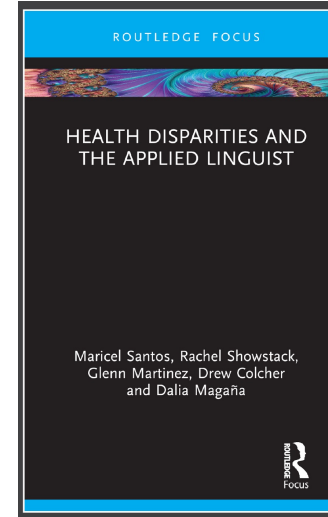


Comprehensive Center of Excellence for Health  
and Risk in Minority Youth and Young Adults



**HEALTH EQUITY INSTITUTE**  
*for Research, Practice & Policy*

**Research Infrastructure in Minority  
Institutions (RIMI) Fellow, National  
Institute on Minority Health and  
Health Disparities, 2008-2013**



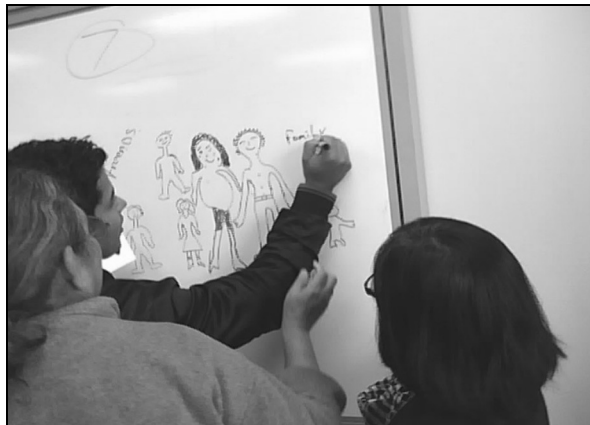
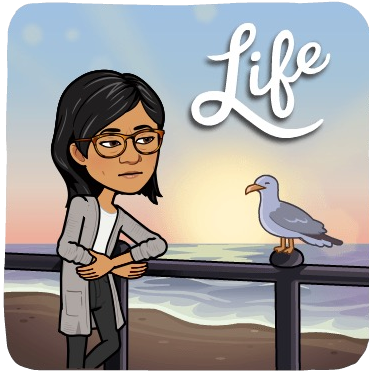


Photo Credits: 1.Maricel Santos, 2.Kat Pierce, 3.Jon Crispin, 4.Daryl Gordon



- the adult literacy classroom as a safe space for gaining critical skills and practices for navigating our healthcare system
- participation in adult ELL >> health-protective factor
- talk and interaction >> critical resources for learning
- talk and interaction in the classroom  $\approx$  doing healthcare

## Chapter 3

# Classrooms and “Real” Worlds: Boundaries, Roadblocks, and Connections

Leo van Lier, Monterey Institute of International Studies

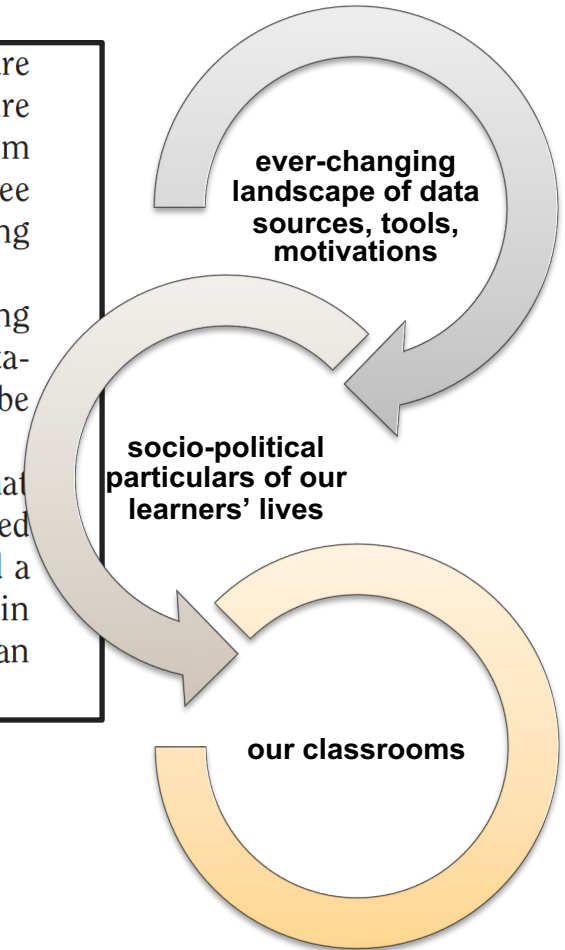
## Abstract

In this chapter, I examine the language classroom and its relations to the rest of the world. I take an ecological approach; that is, I focus on the relationships among the various places and situations that members of language classrooms find themselves in and how these relationships are affected by a variety of constraining and enabling factors. In particular, I look at three sets of issues, two of them (named boundaries and roadblocks) constraining and the third (named connections) enabling. The chapter discusses ways in which the various issues raised have been and can be researched and reviews key theories and approaches, including the tension between micro- and macroperspectives and emic and etic perspectives. Questions addressed include the following: How do classrooms turn out the way that they do, and in what ways are they shaped by society or by their inhabitants? What are the factors that promote or limit connections between social ecosystems such as the family, the peer group, and the social/institutional ecosystem of the classroom? The sketch provided here is a very partial one, but in the last part of the chapter, some suggestions are offered that can make the classroom into a learning space that may forge connections between learning and the rest of the students' lives.

In ecological terms, the classroom can be seen as a niche. In nature, niches are parts of ecosystems that are particularly suited for particular organisms. There are two aspects to a niche: it has in and of itself properties that suit the organism and that provide affordances, but in addition, it is to a greater or lesser degree constructed by the organism, to make it even more suitable (enhancing existing affordances and creating new ones).

A niche offers important advantages to the organism: safety, shelter, rearing of offspring, proximity of food, and so on. It also introduces constraints: limitations on movement, flight, or foraging; the need to defend the niche to would-be intruders; and a disincentive to explore other (and possibly better) niches.

Going back to the classroom as ecological niche, the first thing to note is that it is preconstructed to a large degree. It is designed for its perceived and intended purpose. Students walk in for the first time and encounter walls, desks, and a certain arrangement of artifacts, barren or cluttered. These things are givens in the same way that a certain cave is a given for a bear or an empty snail shell is an affordance for a growing hermit crab.



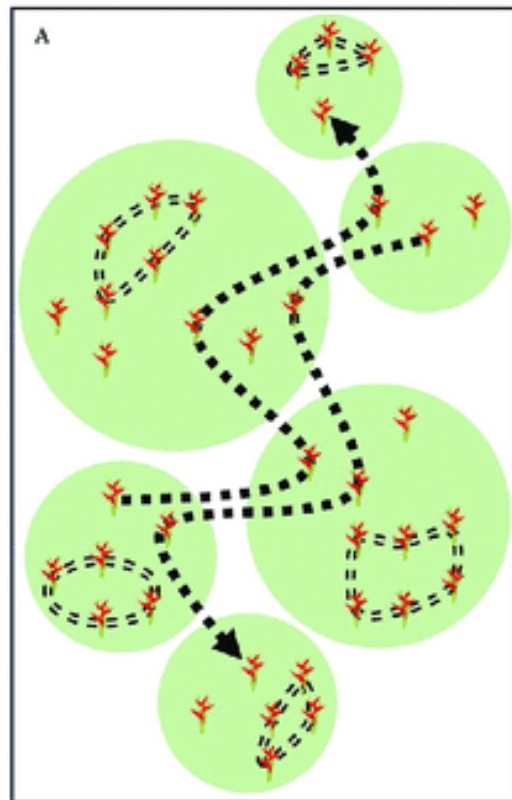
(van Lier, 2012, p. 33)



The other topic is the extent to which the classroom niche is a second-language-oriented safe haven, retreat, or temporary cage and to what extent it is a place from which to do two things: (1) venture forth and hunt for language stuff and (2) bring back language stuff to share, savor, and digest. The venturing forth and bringing back can be seen literally, virtually, or symbolically. That is, one can perfectly well stay in a seat and venture forth into imagined worlds and come back to share them with neighbors. Or one can stay in the seat and enter virtual social worlds, thus transforming the notion of niche into something completely new and not bounded by physical space.

(van Lier, 2012, p. 34)







Briggs (2008)

Figure 1. Internet Meme Depicting T-Rex and COVID-19 Mitigation Measures.

**Task #1:** How real are these creatures? Rank from MOST LIKELY to LEAST LIKELY. Talk to a neighbor. Compare your rankings. Same or different?



**mermaid**

1



**la llorona**

2



**yeti**

3



**angel**

4



**Santa**

5



**unicorn**

6

**Task #2:** In the next year, how likely are you to be affected by one of these conditions?



**insomnia**

1



**diabetes**

2



**depression**

3



**weight gain**

4



**migraine**

5



**flu**

6





AQUARIUS  
(Jan 20 - Feb 18)



PISCES  
(Feb 19 - Mar 20)



ARIES  
(Mar 21 - Apr 19)



TAURUS  
(Apr 20 - May 20)



GEMINI  
(May 21 - Jun 20)



CANCER  
(Jun 21 - Jul 22)



LEO  
(Jul 23 - Aug 22)



VIRGO  
(Aug 23 - Sep 22)



LIBRA  
(Sep 23 - Oct 22)



SCORPIO  
(Oct 23 - Nov 21)



SAGITARIUS  
(Nov 22 - Dec 21)



CAPRICORN  
(Dec 22 - Jan 19)

wikiHow to Know Your Horoscope

Who gets  
**vaccinated?**  
What do the  
**stars** say?

Salt Lake County COVID-19 vaccination rates  
**BY ZODIAC SIGN**

SIGN	% FULLY VACCINATED
♌ LEO	70%
♒ AQUARIUS	67%
♈ ARIES	59%
♐ SAGITTARIUS	59%
♋ CANCER	58%
♉ TAURUS	56%
♊ GEMINI	55%
♎ LIBRA	54%
♓ PISCES	51%
♑ CAPRICORN	51%
♍ VIRGO	50%
♏ SCORPIO	46%



The COVID-19 vaccine is backed by science and is in no way influenced by horoscopes.  
*But come on Scorpions!*

Number of SLCo residents vaccinated, by date of birth, from USIS; \*US Population by Zodiac Sign\* from [this link](#) (500k+ population, 14,600k+ for 2020, and 14,600k+ for 2021).



# What supports data literacy learning?

Opportunities...

- to **play with data** – hear, see, read, write, say, embody it, imagine, **problem-solve with others**
- to **see yourself in the data**
- to **practice ‘speaking data’** (D’Ignazio, 2017; D’Ignazio & Bhargava, 2016)





Changing the way we think  
about health data by changing  
the way we engage adult  
learners as

DATA CREATORS

DATA STORY-TELLERS

DATA VISUALIZERS

# CJI Team



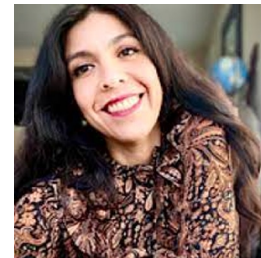
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UCSF



**Jose Parra, BS**  
PRISE Center, UCSF



**Maricel Santos, EdD**  
SFSU



**Maria Bastias, MA**  
SFSU / Mujeres Unidas  
y Activas



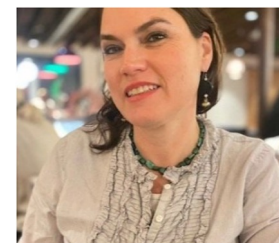
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**Elaine Chang, MPH**  
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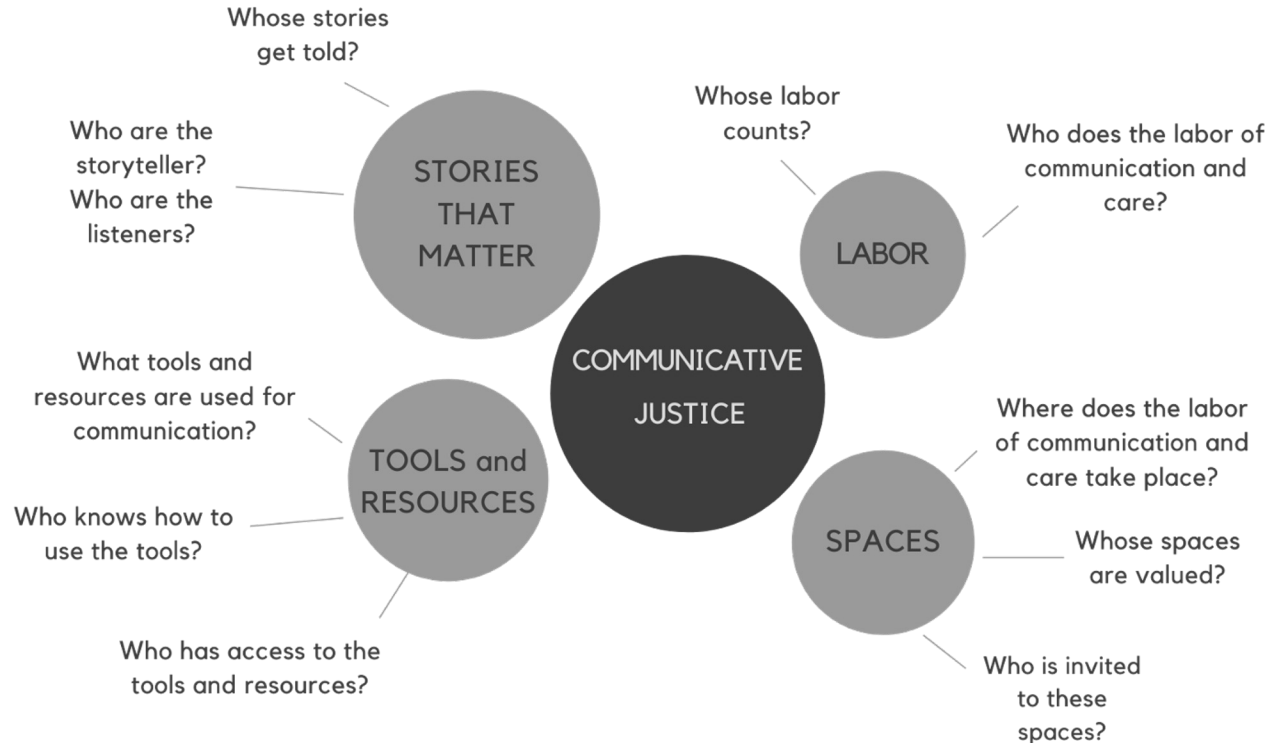


**Rebecca Kim, MA**  
SFSU



**Yasmin Webster-  
Woog, MA**  
SFSU

# Exploring new questions about health/communicative labor with learners and teachers (cf. Briggs, 2017; D'Ignazio & Klein, 2020; Handley, Santos, & McClelland, 2009)



# BRAINSTORM: What is 'communicative justice'?

A collage of ideas, definitions, inspirations

## HEALTH COMMUNICATION (Briggs, 2003)



"Why not include people who are 'experts' in reading how information is interpellated within their own communities? In doing so, we might learn a lot more about the full range of publics that emerge as discourse about health circulates. Nevertheless, inviting popular participation in shaping how health-related public discourse is disseminated should form part of efforts to break the hold of hegemonic models and practices—not to make them more effective" (p. 313)

0 Add comment

## DATA VISUALIZATION LITERACY (Börner et al, 2015)



"the ability to make meaning from and interpret patterns, trends, and

## COMMUNICATIVE LABOR (Briggs, 2017)

"I position care and storytelling as forms of labor that... are co-produced (...) To explore relations of care, we need to ask what kind of labor is involved in calling 911..., making a doctor's appointment, telling a family member about one's pain, and both asking and responding to diagnostic questions (...) I want to attend to differences as to whose bodies, lives, deaths, and experiences get narrativized, by whom, and how" (p. 290)

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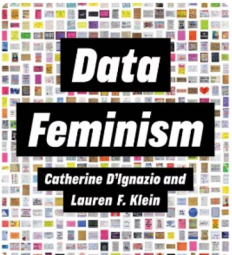
## DATA LITERACY (Lim et al, 2015)



"the ability to understand, find, collect, interpret, visualize, and support arguments using quantitative and qualitative data" (p. 67)

2 Add comment

## DATA FEMINISM (D'Ignazio & Klein, 2020)



Open Source Link: <https://data-feminism.mitpress.mit.edu/>

0 Add comment

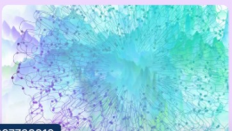
1yr A book you can read entirely online!

1yr Started to read some of this---great resource! A-ha-- consistent reminder of the questions we need to ask ourselves as critical consumers of data—who collected the data? for what purpose? who benefits? whose voice is left out?

1yr Hi Leah, I want to read this book. Yes, as educators and for our students, so important to be critical consumers of data.

0 Add comment

## STREET DATA (Safir & Dugan, 2021)



## DATA FEMINISM (D'Ignazio & Klein, 2020)



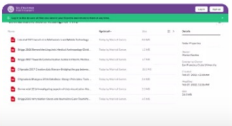
"What might be gained if we not only recognized but also valued the fact that data work involves multiple voices and multiple types of expertise? What if producing new social relationships -- increasing community solidarity and enhancing social cohesion -- was valued (and funded) as much as acquiring data? We think this would lead to a multiplication of projects... that do demonstrate good with data and do so together with the communities they need to support" (p. 135)

1 Add comment

1yr This reminds me of Jacqueline Royster's CCCC address, in which they speak about subjectivity and voice in writing studies. "Using subject position as a terministic screen in cross-boundary discourse permits analysis to operate kaleidoscopically, thereby permitting interpretation to be richly informed by the converging of dialectical perspectives." How can we think about subjectivity and subject position in relation to this project?

Rebecca Add comment

## Link to Box Folder



## CREATIVE DATA LITERACY (D'Ignazio, 2017)



"Working with data is an increasingly powerful way of making knowledge claims about the world. There is, however, a growing gap between those who can work effectively with data and those who cannot. Because it is state and corporate actors who possess the resources to collect, store and analyze data, individuals (e.g., citizens, community members, professionals) are more likely to be the subjects of data than to use data for civic purposes. There is a strong case to be made for cultivating data literacy for people in non-technical fields as one way of bridging this gap" (p. 6)

0 Add comment

1yr Yassin- This one stands out to me. Seems so important to acknowledge and address this gap between those who can and cannot work effectively with data. I think this is what we are trying to get at and make change to in our work with CJLL.

1yr I agree with you, Yassin. I also think that there's a need to rethink the concept of data and how we can interact with it.

0 Add comment

## STREET DATA (Safir & Dugan, 2021)



## CREATIVE DATA LITERACY (D'Ignazio, 2017)



"How do we go about empowering new learners with data?" (p. 7)

"I use the term **creative data literacy**, rather than simply 'data literacy', to draw attention to the fact that ... non-technical learners ... need an alternative to the traditional quantitative approach to working with data" (p. 7)

"non-technical learners may need pathways towards speaking data other than those coming from technical fields" (p. 15)

1 Add comment

1yr The teaching practices introduced in this article are helpful to support data literacy and empower learners to "speak data" and develop a "data mindset". Practices to inform classroom activities from this text: Work with community-centered data that is specific to learners' lives. Start with less complex data sets. Write data biographies. Contextualize data that you find through a Google search by researching--who collected the data? how did they collect it? what are its know limitations? etc.

1yr Love this idea of "data biographies"! How might we turn that into a classroom activity? Maricel

1yr In the text, the author suggested Googling data or working backwards from data that was decontextualized to contextualize it by asking the questions above to write a "biography for the data" love this! I think teachers could provide the initial data to

## DATA LITERACY (D'Ignazio & Bhargava, 2016)



"The ability to read, work with, analyze and argue with data. Reading data involves understanding what data is, and what aspects of the world it represents. Working with data involves creating, acquiring, cleaning, and managing it. Analyzing data involves filtering, sorting, aggregating, comparing, and performing other such analytic operations on it. Arguing with data involves using data to support a larger narrative intended to communicate some message to a particular audience" (p. 83).

0 Add comment

## PLEASE START HERE

Dear colleagues,

We are at a con frame of the curio! Pleas to do

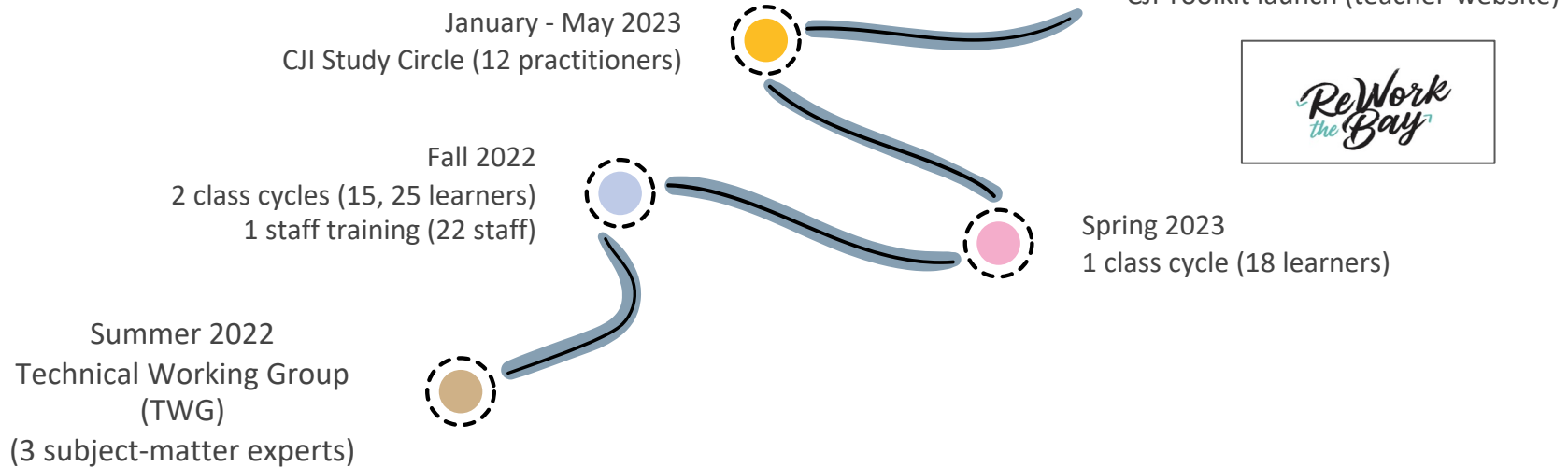
\* Sha comn \* Whi most of co



# Project Timeline: July 2022 - June 2023



The Innovating Digital Education in  
Adult Learning (IDEAL) Consortium





# Coming soon [www. communicativejustice.com](http://www.communicativejustice.com)

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## 1. Students and Teachers' voices

- Study circle participants (different regions and contexts)
- Students' testimonies

## 1. Publications

- [Working with Data in Adult English Classrooms: Lessons Learned about Communicative Justice during the COVID-19 Pandemic](#)
- [Community engagement in the development of health-related data visualizations: a scoping review](#)

## 1. Blogs, newspaper, and webinars

- [Advancing Data Literacy for Adult Learners and Democratizing Data - World Education](#)
- [Targeting COVID-19 disparities in local ESL classrooms | Epidemiology & Biostatistics](#)
- [Now the President and Frontline Workers Have Something in Common - The New York Times](#)
- [Equity Data: Using Meaningful Data to Make Positive Changes in Our Communities](#)

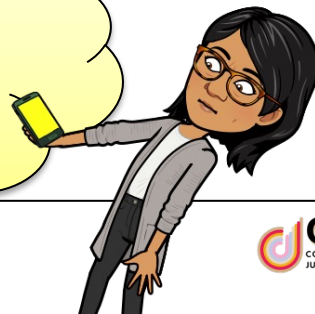
## 1. Data Visualization Tutorials:

- <https://www.datavistoolkit.com/>

## 1. Curriculum and classroom activities

## 2. Contact and partnerships opportunities

**FYI - our website  
not yet live but  
coming soon Fall  
2023!**



**Understanding data**



**Curiosity and  
courage**

**Learning to 'speak  
data'**

**LEARNING DOMAINS**

**Data-storytelling  
with a purpose**

**Playing with data**



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# A CLOSER LOOK AT CJI LEARNING DOMAINS

1. **UNDERSTAND DATA** - ask essential questions – what's data? who works with data? does data improve our lives?
2. **SPEAK DATA** - learning and using language to talk about data, puzzle through our interpretations
3. **PLAY WITH DATA** - hear, see, read, write, speak, imagine, collect, and interpret data while problem-solving with others
4. **STORY-TELL WITH DATA** - see ourselves in data and tell stories with a purpose, through a purpose-driven discovery process that shows the power and limitations of data
5. **CULTIVATE COURAGE AND CURIOSITY** - leaning into the possibility that learners have power as data story-tellers in their own right

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## Next steps: Networking, capacity-building, pushing back

1. Champion data literacy policies that support access to education and tools
2. Change the narratives about “low data literacy”
  - ✓ Data literacies not data literacy (Fotopoulou, 2021)
  - ✓ Emphasis on engagement process (LEARNING), not merely tool proliferation
  - ✓ Celebrate the foragers
  - ✓ Call out the barriers that impeded foraging
3. Interdisciplinary networking: data science, health equity, adult education - Roundtables? Who’s attending whose conferences? Collaborative grant-writing?

# RECAP What supports communicative justice?

Empowered opportunities (spaces, tools, networks) for learners to...

- **play with data** – hear, see, read, write, say, embody it, imagine, **problem-solve with others**
  - data story-telling as a collective act
- **practice ‘speaking data’** (Data Basic video)
- **see yourself in the data**

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