

A DATA FEMINISM NETWORK &  
TORONTO WOMXN IN DATA SCIENCE  
COLLABORATION

# Data Feminism Study Guide

## Chapter 3-5

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### Meet the Authors



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### Seven Principles of Data Feminism:

*Examine Power*

*Challenge Power*

*Elevate Emotion and Embodiment*

*Rethink Binaries and Hierarchies*

*Embrace Pluralism*

*Consider Context*

*Make Labor Visible*

# Chapter 3 - On Rational, Scientific, Objective Viewpoints From Mythical, Imaginary, Impossible Standpoints

*Principle: Elevate Emotion and Embodiment*

→ Data feminism teaches us to value multiple forms of knowledge, including the knowledge that comes from people as living, feeling bodies in the world.

## Key Definitions:

- **Framing effects** → the impact data scientists have on how people interpret the graphics and what they take away from them (82)
- **Feminist objectivity** → a tool that can account for the situated nature of knowledge and bring together multiple partial perspectives (83)
- **Strong objectivity** → works toward more inclusive knowledge production by centering the perspectives or standpoints of groups that are otherwise theory (83)
- **Positionality** → concept that emphasizes how individuals come to knowledge making processes from multiple positions, each determined by culture and context (83)
- **Affect** → the term that academics use to refer to emotions and other subjective feelings (84)
- **Heuristics** → using mental shortcuts to make judgments (90)



# Key Themes

- *God trick (76)*
  - Coined by Donna Haraway: data visualization is a trick because it makes the viewer believe that they can see everything, all at once, from an imaginary and impossible standpoint. But it's also a trick because what appears to be everything, and what appears to be neutral, is always what she terms a partial perspective.
- *Visualization as rhetoric (80)*
  - "When visualizing data, the only verifiable fact is that it's impossible to avoid interpretation" - Jonathan Stray
- *Context is queen (91)*
  - A design choice made in one context or for one audience does not translate to other audiences
- *Demarginalizing the margins (95)*
  - Feminist human-computer interaction (HCI) scholar Shaowen Bardzell explains that the people pushed to the margins in any particular design context demonstrate who and what the system is trying to exclude. Subsequent work in HCI insists that designers then work to "demarginalize the margins" by recognizing intersections that exist, and engaging solidarity to navigate towards equity and inclusion.

## Data Feminism in Action

### PERISCOPIC, “DO GOOD WITH DATA”

In 2012, twenty kindergarten children and six adults were shot and killed in Sandy Hook, Connecticut. In light of this unconscionable tragedy, Periscopic began a new project: to visualize all the gun deaths that took place in the United States over the course of a calendar year. (73)

→ <https://periscopic.com/#/>

## **DR. NIECA GOLDBERG, *WOMEN ARE NOT SMALL MEN***

in her book *Women Are Not Small Men*, she found that heart disease in women unfolds in a fundamentally different way than men. The vast majority of scientific studies - not just of heart disease, but of most medical conditions are conducted on men, with women viewed as varying from this “norm” only by their size. (83)

→ [https://www.goodreads.com/book/show/1776520.Women\\_Are\\_Not\\_Small\\_Men](https://www.goodreads.com/book/show/1776520.Women_Are_Not_Small_Men)

## **GUERRILLA GIRLS, AN ANONYMOUS COLLECTIVE OF WOMEN ARTISTS, PUBLISHED AN INFOGRAPHIC, *DO WOMEN HAVE TO BE NAKED TO GET INTO THE MET MUSEUM?***

The graphic makes a data-driven argument by comparing the gender statistics of artists collected by the Met to the gender statistics of the subjects and models in the artworks. The Met readily collects paintings in which women are the (naked) subjects but it collects very few artworks created by women artists themselves. (85)

→<https://www.tate.org.uk/art/artworks/guerrilla-girls-do-women-have-to-be-naked-to-get-into-the-met-museum-p78793>

## **COMING HOME TO INDIGENOUS PLACE NAMES IN CANADA BY MARGARET PEARCE, A CARTOGRAPHER AND MEMBER OF THE CITIZEN POTAWATOMI NATION**

This map depicts the land that is known in contemporary Anglo-Western context as Canada, but without any of the common colonial orientation points. Pearce leverages the authority of the god’s eye view to challenge the colonizer’s view to advocate for a “reseeing” of the land under terms of engagement that recognize Indigenous sovereignty and respect Indigenous homelands. (92)

→<https://umaine.edu/canam/publications/coming-home-map/coming-home-indigenous-place-names-canada-pdf-download/>



# Chapter 4 - What Gets Counted Counts

## *Principle: Rethink Binaries and Hierarchies*

→ Data feminism requires us to challenge the gender binary, along with other systems of counting and classification that perpetuate oppression.

## Key Definitions:

- **Paradox of exposure** → the double bind that places those who stand to significantly gain from being counted in the most danger from that same counting (or classifying) act (105)
- **Patriarchy** → a term that describes the combination of legal frameworks, social structures, and cultural values that contribute to the continued male domination of society (108)

## Key Themes

- *Questioning classification systems (105)*
  - Lurking under the surface of so many classification systems are false binaries and implied hierarchies. Decades of feminist thinking have taught us to question why these distinctions have come about; what social, cultural, or political values they reflect; what hidden (or not so hidden) hierarchies they encode; and, crucially, whether they should exist in the first place.
- *Rethinking binaries in data visualization (111)*
  - By challenging the binary thinking that erases the experiences of certain groups while elevating others, we can work toward more just and equitable data practices and consequently toward a more just and equitable future.
- *Refusing data, recovering data (115)*
  - Questions about counting must be accompanied by questions about consent, as well as of personal safety, cultural dignity, and historical context.

# Data Feminism in Action

## **BORN EQUAL. TREATED UNEQUALLY, AN INTERACTIVE FEATURE IN THE TELEGRAPH THAT EXAMINED THE GENDER GAP IN THE UNITED KINGDOM ALONG A NUMBER OF DIMENSION**

Although the authors treated genders as a binary category, they used color to challenge the stereotypically man/woman color coding. An example of communicating clearly without reinforcing stereotypes. (111)

→ <https://www.telegraph.co.uk/women/business/women-mean-business-interactive/>

## **DOES THE NEW CONGRESS REFLECT YOU?, AN INTERACTIVE THAT APPEARED IN THE GUARDIAN**

Users select their own demographic characteristics to see how many people like them are in the 2018 Congress. Clicking on “trans + nonbinary” leads to a blank map showing zero people in Congress like you. The absence of data becomes an important takeaway, as meaningful as the data themselves. (113/114)

→ <https://www.theguardian.com/us-news/ng-interactive/2018/nov/15/new-congress-us-house-of-representatives-senate>

## **BEYOND XX AND YY (2017), AMANDA MONTAÑEZ, A DESIGNER FOR SCIENTIFIC AMERICAN, CREATED AN INFOGRAPHIC TO ACCOMPANY AN ARTICLE ON THE EVOLVING SCIENCE OF GENDER AND SEX**

Amanda discovered that insisting on binary categories of data collection - with respect to gender, to sex, to their relation, or to anything else - fails to acknowledge the value of what (or who) rests in between and outside. (113)

→ <https://www.scientificamerican.com/article/beyond-xx-and-xy-the-extraordinary-complexity-of-sex-determination/>

## **MAKE THE BREAST PUMP NOT SUCK, HACKATHON**

An ongoing forum for sharing stories, hacking pumps, and reengineering the postpartum ecosystem that surrounds them. (121)

→ <https://makethebreastpumpnotsuck.com>

# Chapter 5 - Unicorns, Janitors, Ninjas, Wizards, and Rockstars

## Principle: **Embrace Pluralism**

→ Data feminism insists that the most complete knowledge comes from synthesizing multiple perspectives, with priority given to local, Indigenous, and experiential ways of knowing.

## Key Definitions:

- **Data settings** → coined by Data studies scholar Yanni Loukissas, describes both the technical and the human processes that affect what information is captured in the data collection process and how the data are then structured (132)
- **Epistemic violence** → coined by Gayatri Spivak, the harm that dominant groups like colonial powers wreak by privileging their ways of knowing over local and Indigenous ways (133)

## Key Themes

- *Disciplining data* (131)
  - Certain assumptions and anxieties remain consistent across different articulations about the need for tidiness, cleanliness, and order, and the qualities of the people who should be doing this work. They must be able to tame the chaos of information overload. They must “scrub” and “cleanse” dirty data. The underlying belief of these ideas, that data should always be clean and controlled, have tainted historical roots (eugenics). As data scientists, we cannot forget these roots, even as the ideas themselves have been tidied up over time.
- *The solidarity genius* (135)
  - Downplays the work of coalitions, communities, and movements that are - not coincidentally - often led primarily by women and people of color.
- *Multiplicity of voices* (136)
  - The idea that many voices, rather than one single loud or technical or magical one, results in a more complete picture of the issue at hand.

- *Co-liberation* (141)
  - Grounded in the belief that enduring and asymmetrical power relations among social groups serve as the root cause of many societal problems. Rather than framing acts of technical service as benevolence or charity, the goal of co-liberation requires that those technical workers acknowledge that they are engaged in a struggle for their own liberation as well, even and especially when they are members of dominant groups.
- *Embracing Pluralism*
  - Offers a way to work toward a model of data for co-liberation. This means transferring knowledge from experts to communities and explicitly cultivating community solidarity in data work.
- *Problem with the singular data scientist "wizard"* (148)
  - They will never defeat the matrix of domination alone, no matter how powerful their spells may be. But a well-designed, data driven, participatory process, one that centers the standpoints of those most marginalized, empowers project participants, and builds new relationships across lines of social difference - well that might just have a chance.

## Data Feminism in Action

### ANTI-EViction MAPPING PROJECT (AEMP)

Since 2003, San Francisco has had an escalating rate of evictions. Data is collected on the number of evictions, but no data is collected on how many of those people end up homeless, or which landlords are responsible for systematically evicting major blocks of the city. The AEMP is a self-described collective of "housing justice activists, researchers, data nerds, artists, and oral historians." They are mapping eviction, and doing so through a collaborative, multimodal, and-yes-quite messy process. The main purpose is to document the effects of displacement and to resist it through critical and creative means. (125-130)

→ <https://antievictionmap.com/>



## **DESIGN JUSTICE NETWORK**

The Design Justice Network is an international community of people and organizations who are committed to rethinking design processes so that they center people who are too often marginalized by design. They work according to a set of principles that were generated and collaboratively edited by their network.

→ <https://designjustice.org/>

## **DATA MURALS**

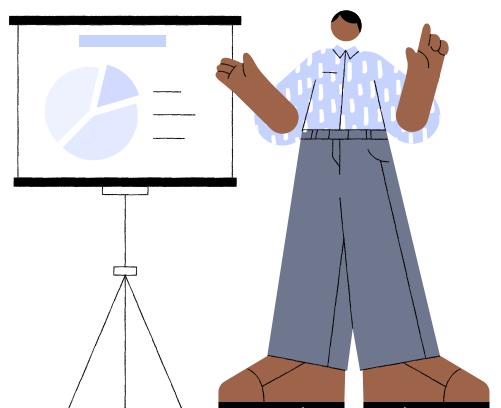
Rahul and Emily Bhargava partnered with community organizations to create data murals in public spaces. Each data mural originates from a need articulated by the community, rather than projected onto it by more powerful institutions. Each relies upon methods of data collection and processing. And each also incorporates an explicit process of knowledge transfer from external collaborators (consultants, academics, nonprofit specialists) to the community itself. (142-144).

→ <https://openjournals.uwaterloo.ca/index.php/JoCI/article/view/3285>

## **THE GLOBAL ATLAS OF ENVIRONMENTAL JUSTICE**

The Global Atlas of Environmental Justice works in partnership with activists, civil society organizations, and social movements to systematically document ecological conflicts around the globe. The EJ Atlas shows that scale is emphatically not incompatible with the feminist imperative to value multiple and local knowledges. (146-147)

→ <https://ejatlas.org/>



# Discussion Questions

1. How might activating emotion-leveraging, rather than resisting, emotion in data visualization - help us learn, remember, and communicate with data? (77)
2. How did the field of data visualization arrive at a set of conventions that prioritize rationality, devalue emotion, and completely ignore the nonseeing organs in the human body? Who is excluded when only vision is included? (95)
3. Why is it important to question how our classification systems are constructed, what values or judgements might be encoded into them, or why they were thought up in the first place? (104)
4. What might be lost in the process of domination and disciplining data? Whose perspectives might be lost in that process? And conversely, whose perspectives might be additionally imposed? (131)
5. 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 is producing new social relationships- increasing community solidarity and enhancing social cohesion- was valued (and funded) as much as acquiring data? (135)
6. What does data for co-liberation look like in action? Are there examples of feminist data science that value quantitative methods and pluralistic processes, data education, and community solidarity? (142)

