

Feminist Data Visualization *Catherine D'Ignazio and Lauren Klein (2016)*

What is Feminist Data Visualization? The visual presentation of systematically collected information that intentionally and explicitly addresses questions of power, inequality, representation, and ethics.

A data visualization may be feminist in content, form, and/or process. (D'Ignazio 2017)

Principles of Feminist Data Visualization (D'Ignazio and Klein 2016)

1. Rethinking Binaries

Design Process Questions: Is our data the right type? What categories have we taken for granted? How can we register responses that do not fit into the categories we have provided, even and especially if they are “edge cases” and “outliers”?

Design Output Questions: How do we communicate the limits of our categories in the final representation? How can we allow the user to refactor the categories we have presented for view?

2. Embrace Pluralism

Design Process Questions: Whose voices are not represented on the design team but might be important for the conceptualization of the project? Who is being envisioned as the ideal user? How could additional perspectives be accommodated, even those considered marginal? Whose perspectives have been excluded from the categorization schema? For example, collecting gender in female/male buckets excludes transgender, gender-fluid and two-spirit people.

Design Output Questions: Can the artifact communicate the subject positions of the researcher(s) and designer(s) in a transparent way? Whose view of the world does the visualization represent? Can the visualization communicate whose voices are missing? Could perspective-taking be a useful strategy to consider for multiple views on the data?

3. Examine Power and Aspire to Empowerment

Design Process Questions: How is power distributed across the design team? Whose voice matters more and why? How can end users' voices be more fully integrated into the design process? Can we build capacity in user communities, or enlarge our internal perspectives, by employing a more participatory design process?

Design Output Questions: Can the visualization empower the end user and/or her community, group, or organization? When do values often assumed to be a social good, such as “choice,” “openness,” or “access,” result in disempowerment instead?

4. Consider Context

Design Process Questions: How can we leverage humancentered design [14] and participatory design [72] methods to learn about and with our end users, including learning more about their culture, history, circumstances, and worldviews? How can we let these insights shape our design practice and change our notions about what constitutes “good” information design?

Design Output Questions: What kinds of terminology, symbols, and cultural artifacts have meaning to end users, and how can we incorporate those into our designs? What might we learn if we were to visualize “messy” data [68]? How do we take context into account in the assessment of visualizations?

5. Legitimize Embodiment and Affect

Design Process Questions: How can we leverage embodied and affective experience to enhance visualization design and engage users? What kinds of expertise might we need on our design team in order to do that? (e.g. fine art, graphic design, animation, or communication specialists)

Design Output Questions: What kinds of embodied and affective experience has meaning to end users? Should we consider tactile, experiential, or social ways of accessing the data visualization? Can we consider visualization outputs in an expanded field, such as data murals, data sculptures, public walks, quilts and installations?

6. Make Labor Visible

Design Process Questions: Can the team work backwards from the given data to document their provenance and talk to their caregivers? Has the team discussed roles, responsibilities, and credit in advance of publication?

Design Output Questions: Is it feasible to provide a metadata visualization that shows the provenance of the data and their stakeholders (caregivers) at each step? Have we properly attributed work on the project?

Feminist Terminology Primer

Feminism: Theoretical and practical frameworks that explore the construction of knowledge, the distribution of power, and genders' intersections with identity, sexuality, race, ethnicity, class, education, etc. Feminism does not solely address women's issues (D'Ignazio and Klein 2016)

Feminist Data Visualization: The visual presentation of systematically collected information that intentionally and explicitly addresses questions of power, inequality, representation, and ethics. A data visualization may be feminist in content, form, and/or process. (D'Ignazio 2017)

Binaries: Categorical distinctions or polar opposites that are distinguished without overlap. Feminist thought, for example, rejects binaries such as gender or sex or the differences between women and men, female and male. Other binaries include: body and mind, reason and emotion, nature and culture, subject and object. (D'Ignazio and Klein 2016)

Situated Knowledge / Standpoint Theory: A rejection of pure objectivity. Situated knowledge acknowledges that all knowledge is partial and produced from a particular perspective (Haraway 1988)

Reflexivity / Positionality: An inward-facing reflection on one's own subjective experience and situated knowledge that acknowledges any bias, influence, and impacts on a research project or map. (McDowell and Sharp 1999; England 1994; Kwan 2002)

Pluralism / Multiplicity: Recognition of two or more identities that exist simultaneously; "expressions of a single self" (Laden 2014)

Intersectionality: This intersectionality refers to social inequalities and experiences that are multidimensional and shaped by intersecting notions of "race, class, gender, sexuality, ethnicity, nation, ability, and age" (Crenshaw 1991; Collins 2015, 2).

Gaze / Male gaze: The process by which people, things, and landscapes are made into objects of consumption by a privileged onlooker. (McDowell and Sharp 1999)

God Trick / View from Nowhere: The process by which people, things, and landscapes are made into objects of consumption by a privileged onlooker. (Haraway)

Empowerment: To be invested in power and agency. (McDowell and Sharp)

Embodiment: The representation or expression of something in a tangible and visible way (Wikipedia)

Affect: The continuous and non-conscious state of emotion before we assign a label to it. Core affect can be placed along to axes: degree of pleasure/displeasure and degree of arousal. (Barrett 2006; Griffin 2012)

Emotion: The label assigned to an affective state of being. Emotions might include: happy, sad, angry, frustrated, and excited. (Barrett 2006; Griffin 2012)