

What is Quantification

- "the production and communication of numbers" (Espeland and Stevens 2008, p. 401).
- o Involves rendering experiential or social phenomena as numbers
- Involving aspects of measurement/reporting, « audit culture », ranking and evaluation, mathematical/statistical analysis
- Distinct from but related to datification

Why is Quantification Important?

Increasing importance of quantitative description/evaluation: Higher Education, Social/environmental activities/reporting, professional activity, psychosocial experience, leisure activity

- Prevalence of algorithmic systems, big data and AI narratives, "surveillance capitalism"
- Emergence of new forms of markets and valuation
- Provenance of social and environmental goals through standards, reporting, ranking
- Increased self-understanding through numerization of the self in terms of quantifiable traits and activities

All of these phenomena raise issues around the role of numbers in generating knowledge, driving behavior, and establishing new social forms



Quantification as Capture

- Capture involves a moment in which social experience is transformed into numerical values
- Quantification as "extraction" (Sadowski, 2019), "life mining" (van Dijk, 2014), "communicative capitalism" (Dean, 2006)
- Ethically, capture presumes a pre-existing lifeworld of social experience, which may or not be the case (e.g., happiness versus GDP).
- Qualitative versus quantitative capture (i.e., naming versus measuring)

The ethical stakes of quantitative capture involve the question of when actors are/are not justified in bringing social experience into numerical form.

Quantification as Specification

- Specification involves HOW capture results in specific numeric objects, "transforming different qualities into a common metric" (Espeland & Stevens, 1998)
- The question of inclusion/exclusion both at conceptual level (e.g., what counts as a concept) and political level (e.g., who counts as a member)
- Examples: Education metrics at UNESCO- attainment/cost vs access/expenditure (Cusso, 2016), estates versus social classes (Desrosieres, 1993), faculty/staff salaries in rankings (Espeland & Stevens, 1998).

The ethical stakes of specification involve the inclusion/exclusion of elements with the spaces created by metrics. These spaces are both conceptual and political, and determine who or what "counts".

Quantification as Appropriation

- Appropriation has to do with what happens to number *after* their creation, who controls them, profits from them, is able to access/use them
- From properties in the epistemic sense to "property" in the economic sense
- Data production versus data control/ownership. Quantification as "primitive accumulation" (e.g., social media, IoT, surveillance data, health data). Numbers as capital.

The ethical stakes of appropriation involves questions of data justice and distribution as well as the consequences of large accumulations of de-contextualized data.



Conclusion: Doing Numbers Ethically

- Reflecting on the relation between metrics and lived experiences
- Paying attention to who is included/excluded when a metric is made
- Paying attention to who designs, collects, and own quantified metrics
- Distinguishing between using number as ways of knowing, and forms of goverining:
- "when a measure becomes a target, it ceases to be useful as a measure." Greenfield, 2015, p. 205