

Measuring Governance

– a review of using IT and Statistics

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Measurement Explosion in the last decade

- 550 initiatives
- 170 recognized ones
- 45 main projects – updated regularly and cited a lot
- are identified in “Map-making and analysis of the main international initiatives on developing indicators on democracy and good governance” by Todd Landman and Julia Hausermann 2003

More and More Work of Using IT and Statistics

- to enhance the rigor and reliability of measuring governance, democracy and human rights
- Work by David Banks, R. Claude, T. Jabine (1980s) of using statistics – example: *Statistics and Human Rights*, edited by T. Jabine and R. Claude, University of Maryland. Press
- Work sponsored by American Association for the Advancement of Science (1990s) of using IT systems – example: *Making the Case*, ed. by Patrick Ball, Herbert F. Spierer, and Louise Spierer (AAAS, 2000).
- Using Structural Equation Modeling, Classification Trees and other datamining methods – example: work by K. Bollen, P. Paxton, A. Liu ...

Conceptual Frameworks

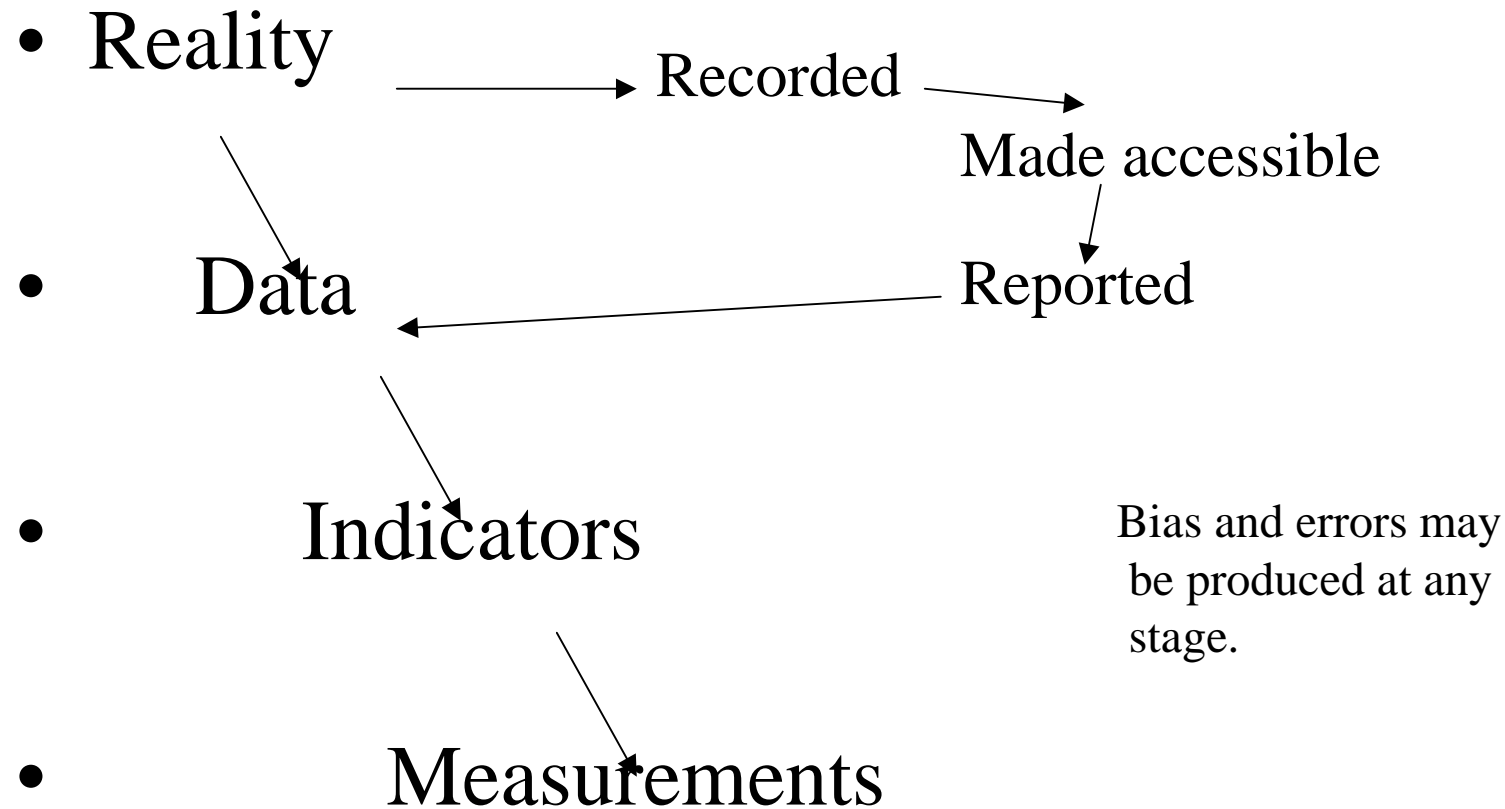
- Governance
- Human Rights
- Democracy
- are still contested concepts
- Diff definitions do lead to diff measurements.

trend: simple classification or ranking to scientific measuring.

example: ranking democracy to measuring quality of democracy

OR measuring state of democracy

Measuring Process



Advanced IT and statistical analytical tools are tested for improvement at every stage of this process.

Measurement Theory

- Governance as a latent variable
- $f(\text{measure/indicator}) =$
- $f(\text{measure}) * f(\text{indicator/measure}) / f(\text{indicator})$
- Principles are not followed by most of the practice.
- Methods to estimate MEASURE's value from INDICATORS' values are often simplified.

Ref: Bartholomew, D.J. (1996). *The Statistical Approach to Social Measurement*, Academic Press, San Diego, CA

Democracy as a Latent Variable 2003 S. Treier and S. Jackson

Data Types

- Survey Data
- Events Data
- News Articles
- Research Reports

- more and more types of data are made available by IT.

Indicator Types

- Objective vs. Subjective Indicators
- Input indicators
- Output indicators
- Process indicators

Problems of Current Practice

- Information (data) bias
- Lack of transparency
- Measurements errors (aggregation problems, scale problems, validity, reliability) not assessed or not reported

More on Democracy Measures

- 1954-1965, 2080 democracy measures were created, but only 28% were used more than ONCE (see pg 91 of Barsh, R.L. 1993 Measuring Human Rights, HR Quarterly 15 (1) 87-121)
- Freedom House ratings, Polity and Polyarchy are the remaining 3 popular ones.

More on Human Rights Measures

- 3 streams
- - human rights monitoring – developed events data standard
- - political science research – developed measurement scales
- - development studies – developed “progressive realization” measures

More on Governance Measures

- Political freedom or performance as proxy measures
- Political violence as an inverse measure
- Subjective measures like expert opinion
- Objective measures such as confidence in financial institutions or economic return of government projects

Examples

- Freedom House Rating
 - civil liberties
 - political competitiveness
- Worldwide Governance Indicators KKZ
 - voice and accountability
 - political stability and absence of violence
 - government effectiveness
 - regulatory quality
 - rule of law
 - control of corruption

Assessing Method Bias

- Ken Bollen & P. Paxton (1993, 1998, 2000) proposed ways to detect and estimate method bias
- A. Liu (2004) proposed ways to assess method bias more accurately, and ways to minimize bias.

Assessing Reliability

- Major measures are correlated highly, but not interchangeable as discovered by many (Casper and Tufts 2003), mainly due to low reliability (A. Liu 2003).
- Need to assess reliability and improve it.

Bias and Errors from 4 Ways

- Incomplete set of indicators leads to low validity
- Wrong value assigned to indicators – incomplete information or bias produced errors
- Wrong weight assigned to each indicator
- Simple additive combination of indicators to measure democracy
- RM may be the only group studying all these 4 systematically

Aggregation of Indicators

- Everything else being equal, the more indicators one uses, the better measurement one can get.
- A. Liu (2003, 2004) suggested to use some popular democracy rankings as indicators of a new democracy measurement.
- Jairo Acuña-Alfaro (2005) used a 2-2-1 method to combine the Freedom House, Polity and Poliarchy indices for a composite democracy index.
- Tens or hundreds of indicators need to be aggregated, but not with a simple additive way, as many agreed.
- A Liu (2006) suggested a latent measurement model-based approach to combine indices to create a new democracy measurement.