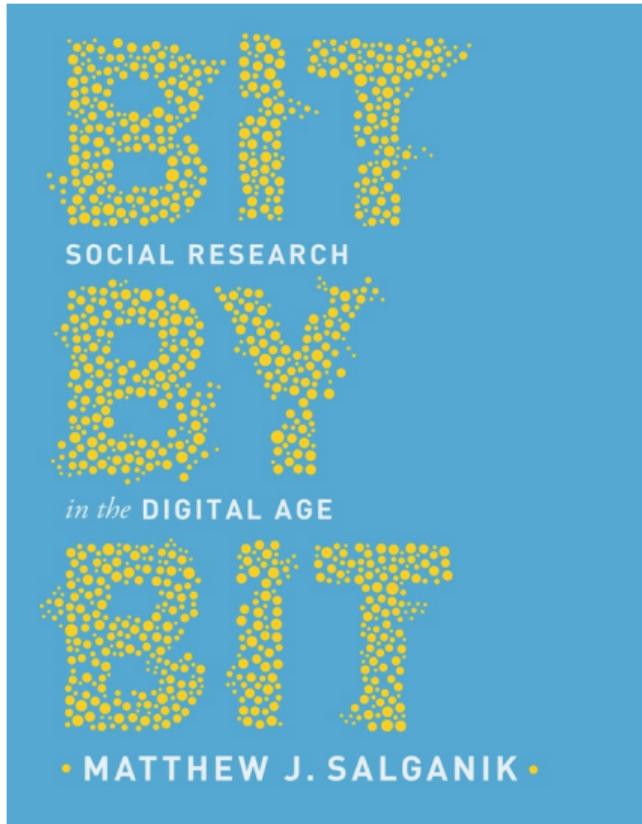


[Survey research in the digital age], [Probability and non-probability sampling], [Computer-administered interviews], [Combining surveys and big data], [Additions and extensions]

Matthew J. Salganik
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- 1) Introduction
- 2) Observing behavior
- 3) Asking questions
- 4) Running experiments
- 5) Mass collaboration
- 6) Ethics
- 7) The future







readymades



custommades

https://commons.wikimedia.org/wiki/File:Duchamp_Fountaine.jpg
https://commons.wikimedia.org/wiki/File:%27David%27_by_Michelangelo_JBU0001.JPG

A few notes on my teaching:

- ▶ Anti-status quo bias

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- ▶ Very brief, more information in Ch. 3 of *Bit by Bit*

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We need surveys even especially in the digital age.

We will always need to ask

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But how we are going to ask is going to change

	Sampling	Interviews
1st era	Area probability	Face-to-face

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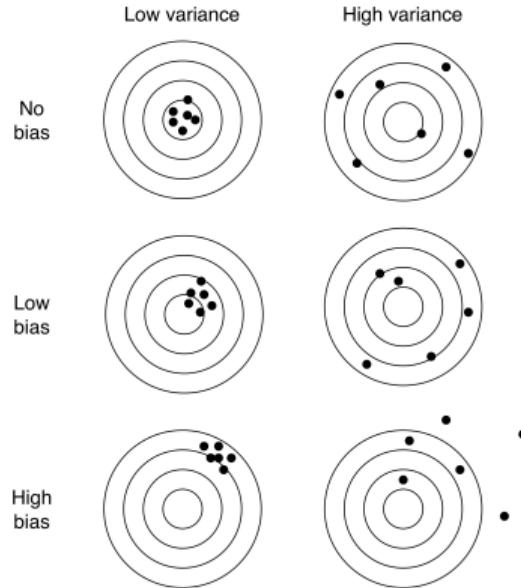
Total survey error framework

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Insight 1: Errors can come from bias and variance

Total survey error framework

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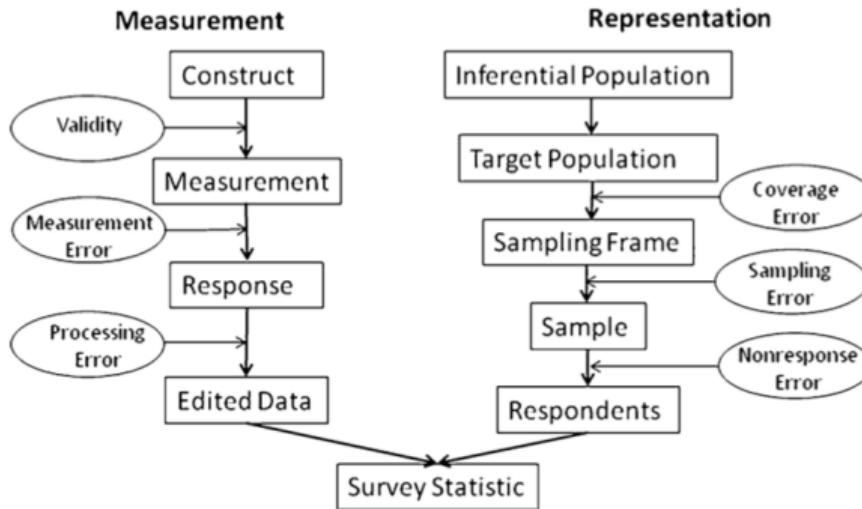


Total survey error framework

Insight 2: Total survey error = measurement error + representation error

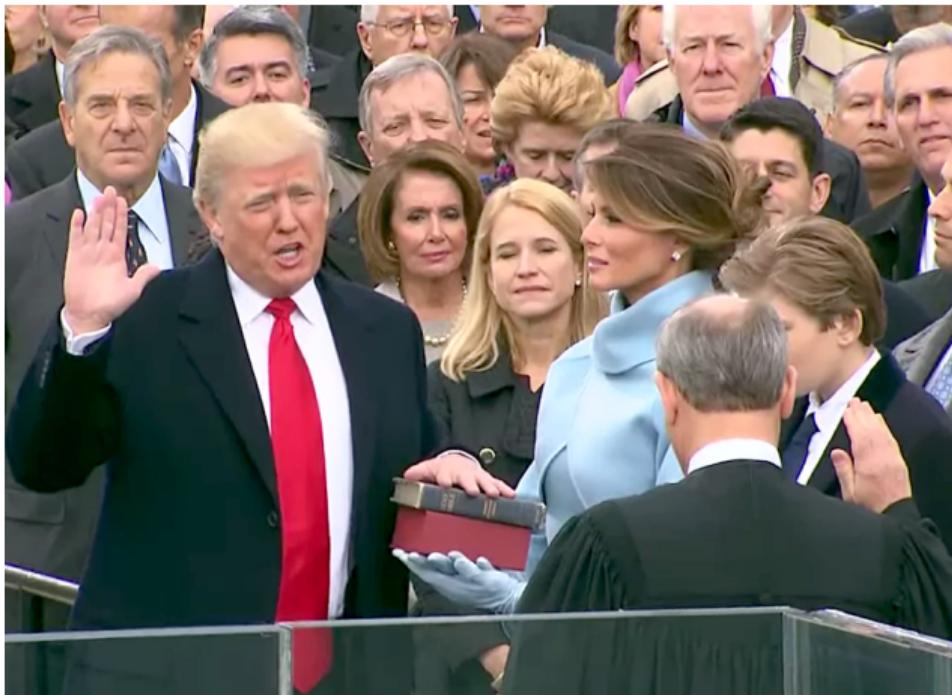
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Insight 2: Total survey error = measurement error + representation error



Groves and Lyberg 2010, Fig 3

Case study of total survey error framework



https://commons.wikimedia.org/wiki/File:Donald_Trump_taking_his_Oath_of_Office.png

Case study of total survey error framework

An Evaluation of 2016 Election Polls in the U.S.

Ad Hoc Committee on 2016 Election Polling

Courtney Kennedy, Pew Research Center

Mark Blumenthal, SurveyMonkey

Scott Clement, Washington Post

Joshua A. D. Clinton, Vanderbilt University

Claire Durand, University of Montreal

Charles Franklin, Marquette University

Kyley McGeeney, Pew Research Center[1]

Lee Miringoff, Marist College

Kristen Olson, University of Nebraska-Lincoln

Doug Rivers, Stanford University, YouGov

Lydia Saad, Gallup

Evans Witt, Princeton Survey Research Associates

Chris Wlezien, University of Texas at Austin

<http://www.aapor.org/Education-Resources/Reports/An-Evaluation-of-2016-Election-Polls-in-the-U-S.aspx>

Case study of total survey error framework

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Case study of total survey error framework

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 - ▶ State-level polls showed a competitive, uncertain contest . . .
 - ▶ . . . but clearly under-estimated Trump's support in the Upper Midwest.

Case study of total survey error framework

"There are a number of reasons as to why polls under-estimated support for Trump. The explanations for which we found the most evidence are:"

- ▶ "Real change in vote preference during the final week or so of the campaign"

Case study of total survey error framework

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 - ▶ “Adjusting for over-representation of college graduates was critical, but many polls did not do it”

Case study of total survey error framework

"There are a number of reasons as to why polls under-estimated support for Trump. The explanations for which we found the most evidence are:"

- ▶ "Real change in vote preference during the final week or so of the campaign"
- ▶ "Adjusting for over-representation of college graduates was critical, but many polls did not do it"
- ▶ "Some Trump voters who participated in pre-election polls did not reveal themselves as Trump voters until after the election, and they outnumbered late-revealing Clinton voters"

Full report: <http://www.aapor.org/Education-Resources/Reports/An-Evaluation-of-2016-Election-Polls-in-the-U-S.aspx>

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- ▶ Total survey error framework 2nd key insight: errors can be related to representation and measurement
- ▶ Total survey error framework also helps us think about how digital age can create new opportunities (who to ask and how to ask)
- ▶ To learn more: [Groves et al \(2009\)](#)

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