



Justice Rising

The Growing Ethical Importance of Big Data, Survey Data, Models and AI

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Ipsos

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Google

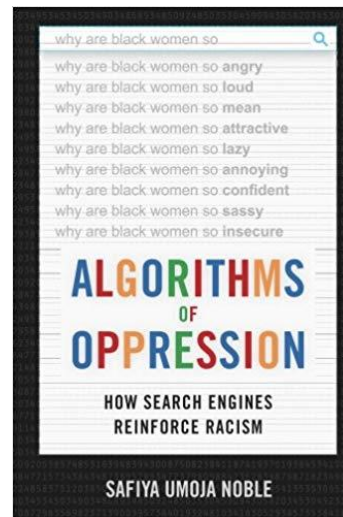
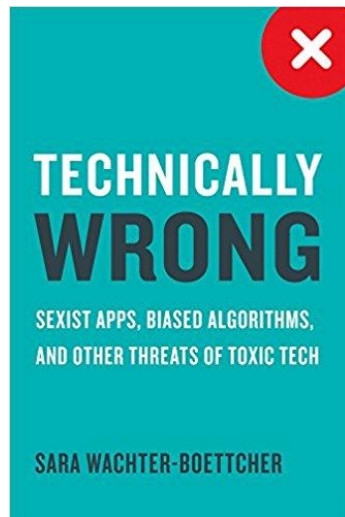
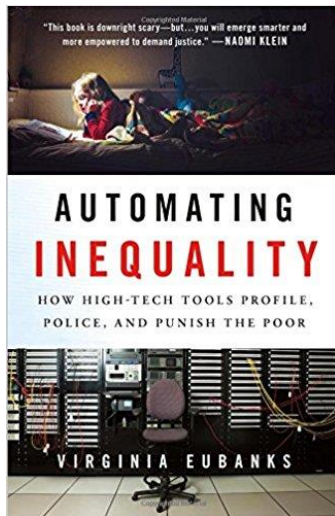
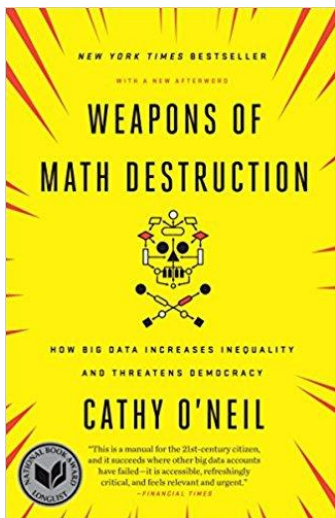
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Issues Occur



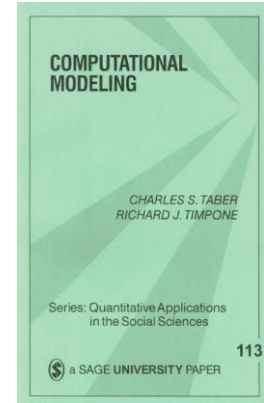
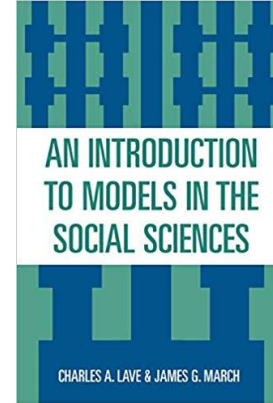


Criteria of Evaluation

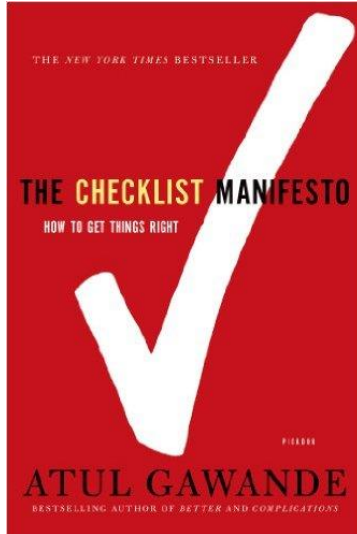
Truth

Beauty

Justice



Tools to Reduce Risks



“We have accumulated stupendous know-how. We have put it in the hands of some of the most highly trained, highly skilled, and hardworking people in our society. And, with it, they have indeed accomplished extraordinary things.”

Atul Gawande 2009

Research Phases

Who Are We Including

Sample
Representativeness

What Are We Collecting

Measurement
Quality

How Do We Model

Model Quality and
Utilization

**How Do We Know
What is Happening**

Transparency



Answer the checklist questions through the lens of *Justice*.

Representativeness Challenges

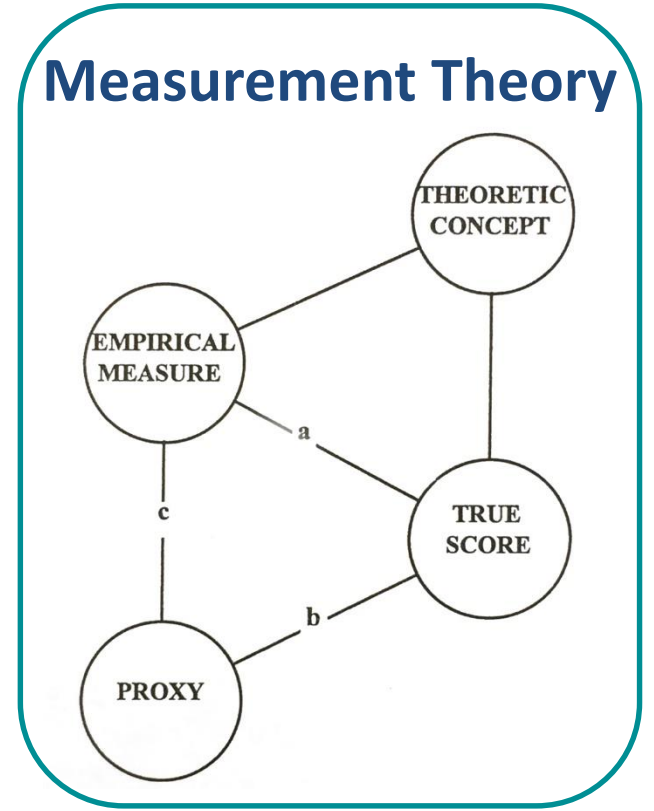


Phase 1 Checklist

Who Are We Including: Sample Representativeness

1. Is the research team diverse?
2. Do we have the the appropriate unit of analysis?
3. Do we have a representative sample of the population of interest?
4. If not, is the selection related to the outcomes themselves?
5. Is there meaningful heterogeneity in the sample of interest?
6. Are there dynamics that can change the population in the future?

Measurement Quality Challenges

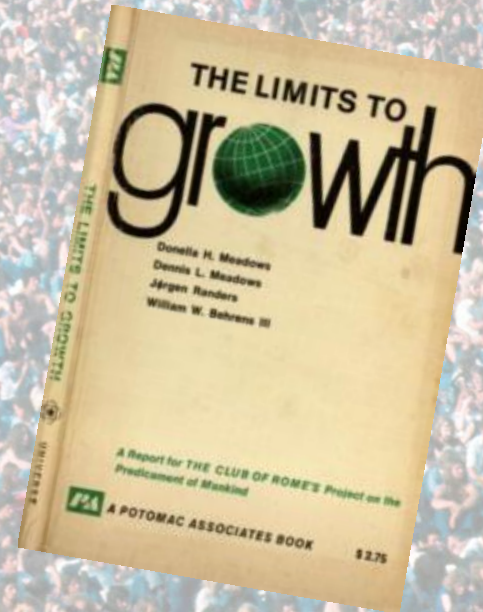


Phase 2 Checklist

What Are We Collecting: Measurement Quality

1. Is the research team diverse?
2. Have we identified the theoretically important inputs and outputs?
3. Do we have direct measures of the theoretic concepts?
4. Are we using proxies where we don't have direct measures?
5. Have we considered risks from measurement error and proxies?
6. Is there heterogeneity in measures to include and measurement?

Model Quality Challenges



Phase 3 Checklist

How Do We Model: Model Quality and Utilization

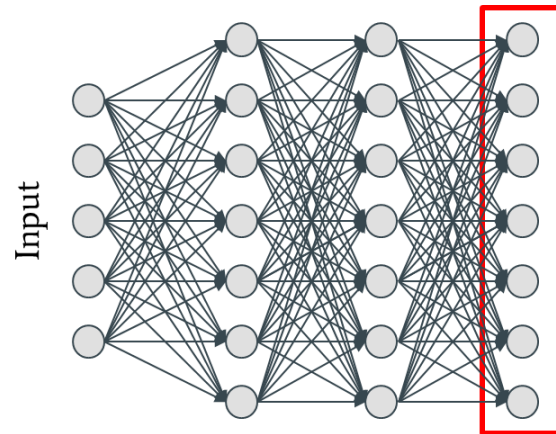
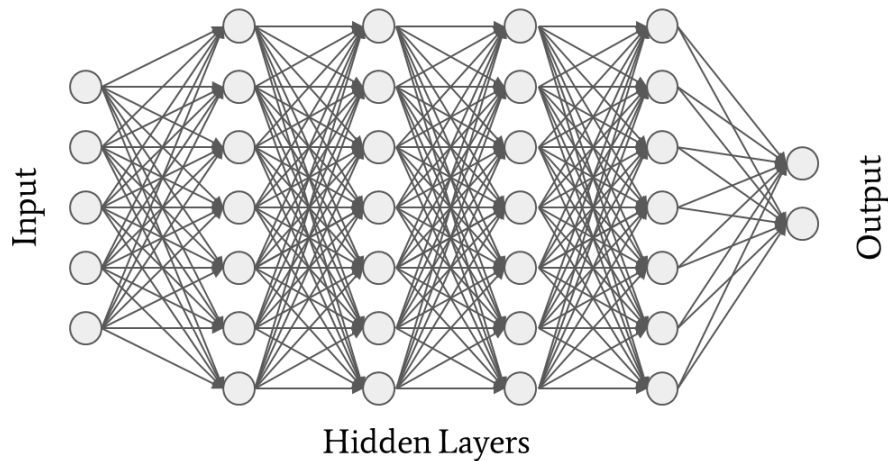
1. Is the research team diverse?
2. Have we selected a method that matches the process theorized?
3. If there is a training step, is the training data adequate?
4. Is the model quality adequate for its purpose?
5. Are we updating the model as circumstances change?
6. Does the model handle heterogeneity in relationships?
7. Are there more issues to consider with the application in practice?

Phase 4 Checklist

How Do We Know What's Happening: Transparency

1. Are there institutional barriers to transparency?
2. If so, have steps been made to provide what can be shared?
3. Is the method used opaque?
4. If so, have steps been taken to produce more understanding?
5. Has there been outside evaluation?

Predictive Explanation



Who Are We Including

Sample
Representativeness

What Are We Collecting

Measurement
Quality

How Do We Model

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**How Do We Know
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Transparency



Thank You!

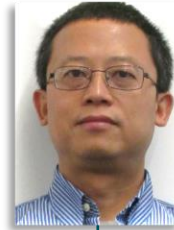


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