

ETHICAL ISSUES IN THE BIG DATA INDUSTRY - IMPLICATIONS FOR INSURANCE

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1. Source of Big Data
2. Analysis of Big Data
3. Marketing Use of Big Data



Sourcing Issues

1. Treatment of Individuals
2. Environmental Damage
3. Poor Quality



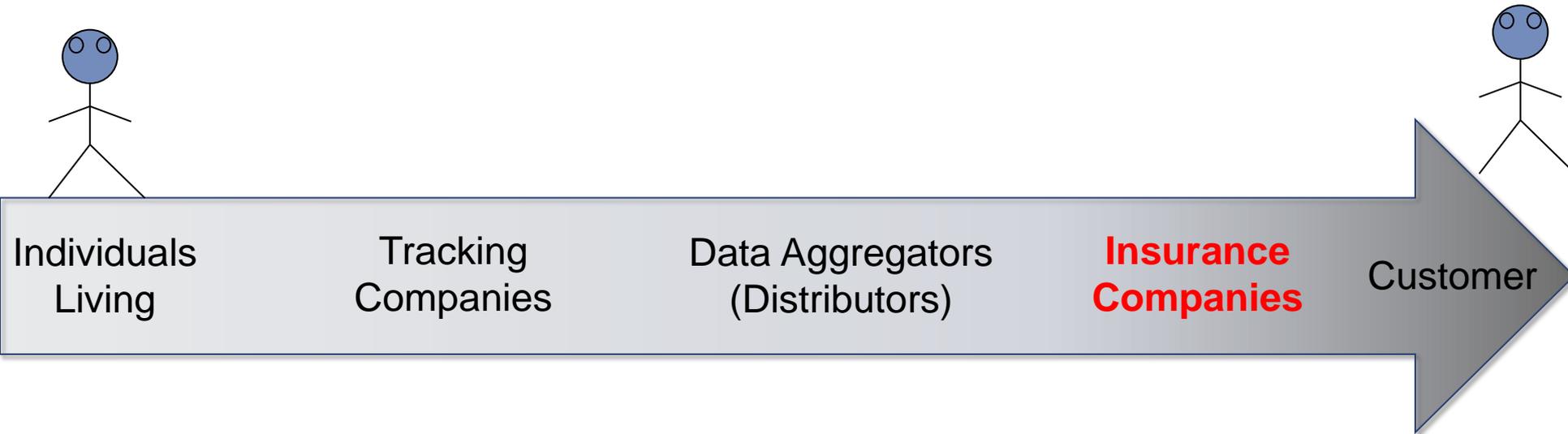
Manufacturing Issues

1. Treatment of Individuals
2. Pollution
3. Poor Quality

Use Issues

1. Distribution
2. Harm to Consumer
3. Novel 2nd Use

1. SOURCE OF BIG DATA



But

~~0. Data is public information without any expectation of privacy.~~

1. Someone else did it. *I* didn't actually do anything wrong (e.g., breach confidentiality/laws/privacy expectations), so why should *I* be held accountable? (Nike, Wal-Mart, Apple, Kathy Lee Gifford Argument).
2. Everyone else is doing it (Connor Argument; Lance Armstrong c. 2013 Argument)

Difference in Trust



65% of respondents have complete or moderate trust in insurance companies (EY 2014)

7% of respondents have confidence that data aggregators protect their data; 50% believe they should not have any data (Pew 2014)

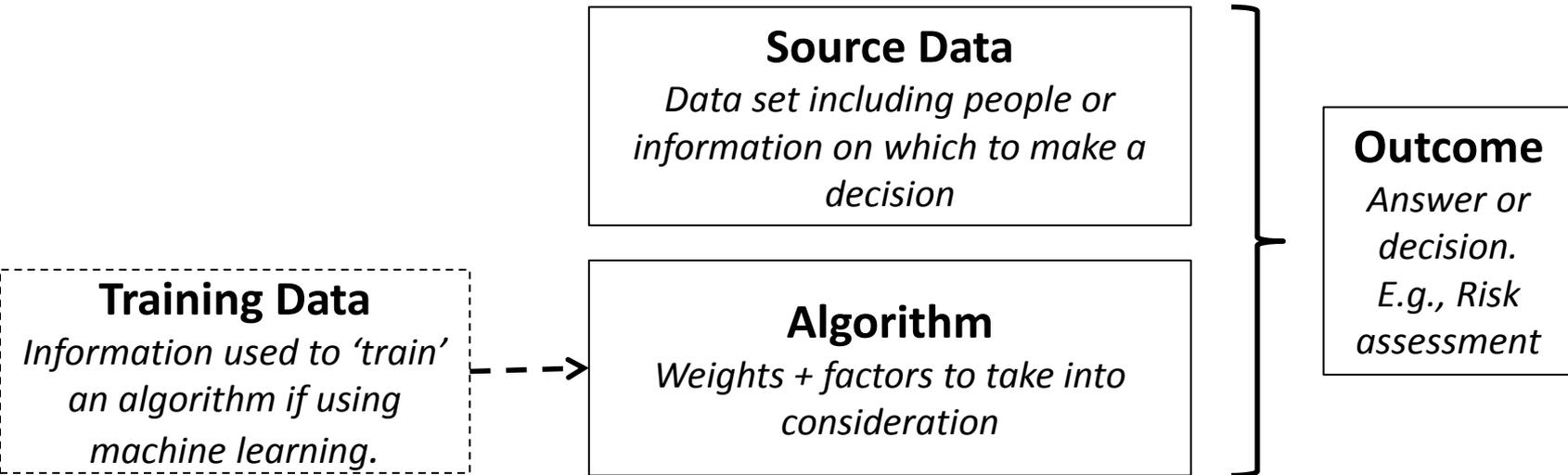


2. ANALYSIS OF BIG DATA

Policy as Hidden

**Policy as Quickly
Replicated**

Current Approach to Algorithmic Decision Making



Acknowledge Unjust Biases Throughout

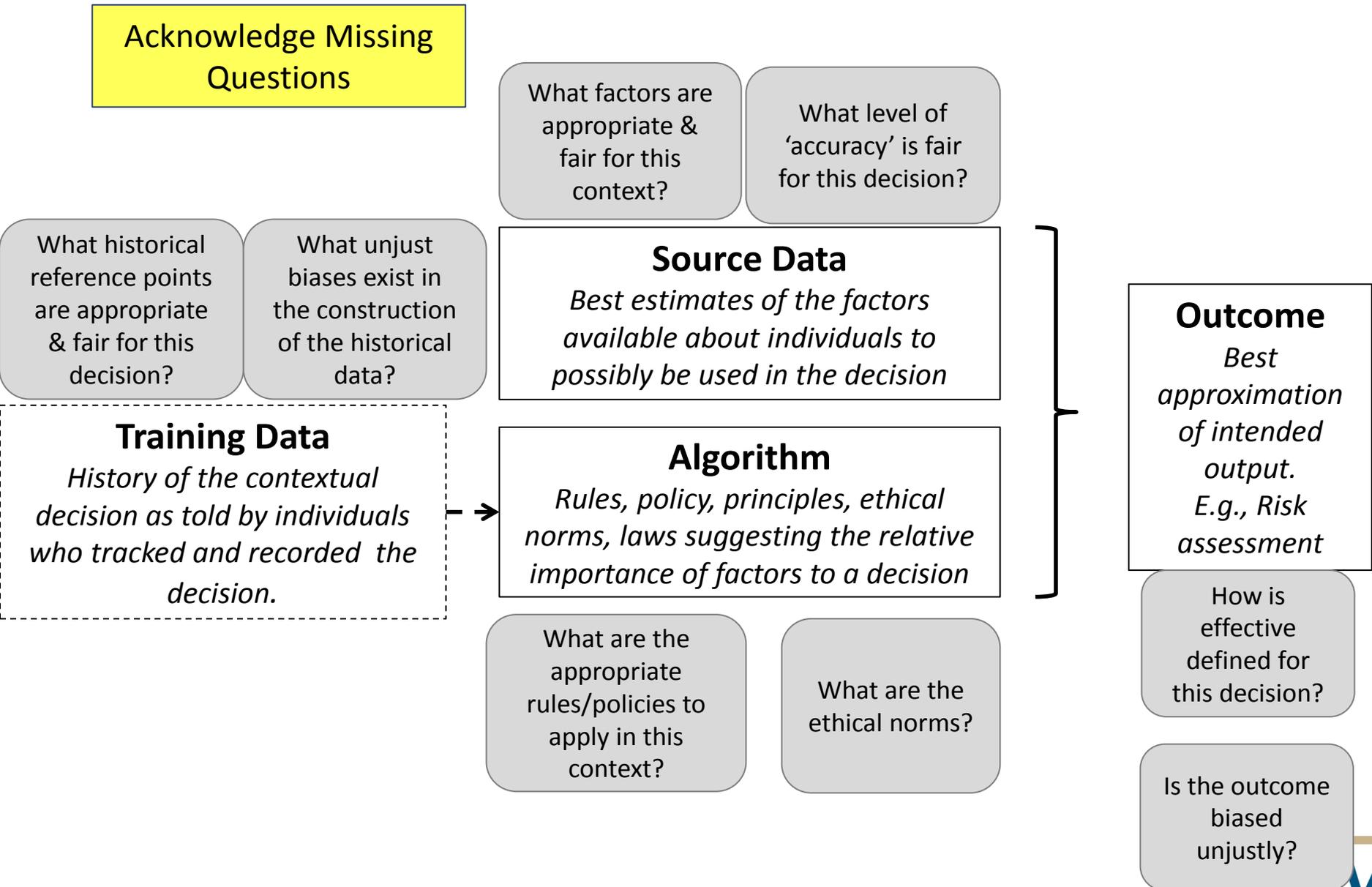
Training Data
History of the contextual decision as told by individuals who tracked and recorded the decision.

Source Data
Best estimates of the factors available about individuals to possibly be used in the decision

Algorithm
Rules, policy, principles, ethical norms, laws suggesting the relative importance of factors to a decision

Outcome
*Best approximation of intended output.
E.g., Risk assessment*

Algorithms as producing an answer



Policy as Hidden

Less Oversight

Policy as Quickly Replicated

Greater Impact

3. MARKETING USE OF BIG DATA

Product, promotion, pricing

Pivotal Decisions – allocation of social goods

- Who deserves the insurance
- Who should have access to financial protections
- Whose claim should be questioned?
- Who should take on greater costs for the same service

Digital marketing manipulation (Calo)

“An insurer might target a chain-smoking motorcycle buff with an action-packed video game designed to help him quit — while appealing to his profile as an adrenaline junkie.”

<https://www.statnews.com/2015/12/15/insurance-big-data/>

“Accuracy” v. “Good Decision”

New Information

- + ‘True’ Information
 - + More Information
 - + Deeper Information
- Biased Information**

E.g., False Claim Detection:

<http://www.tellius.com/machine-learning-transforming-insurance-industry/>

Example

E.g., False Claim Detection:

“With a person-centric [versus claim-centric] approach, the beneficiary’s claim history and behavior across multiple sources (such as using a person’s social graph to find similar behavior patterns among individuals that he or she is connected to, and similar claims that were reported by the same person) are analyzed.”

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Pivotal Decisions – allocation of social goods

- Are there biases in the data such that some demographics have more accurate estimates?
- Are some groups afforded better terms in claims adjustments based on this data?

Digital marketing manipulation (Calo)

- Are individuals particularly vulnerable during this negotiation or promotion?
- Does the data we use give us an unfair advantage?

“Accuracy” v. “Good Decision”

- Are contacts an appropriate factor in determining claims?
- Is the claim decision reviewable? Justified?

IN SUM....

1. Source of Big Data

- *Difference in trust between supplier of data and insurance company*
- *Difference in the importance of trust in their businesses*

2. Analysis of Big Data

- *Policy as hidden*
- *Policy as quickly replicated*

3. Marketing Use of Big Data

- *Pivotal decisions*
- *Good versus accurate decision*
- *Consumer manipulation*