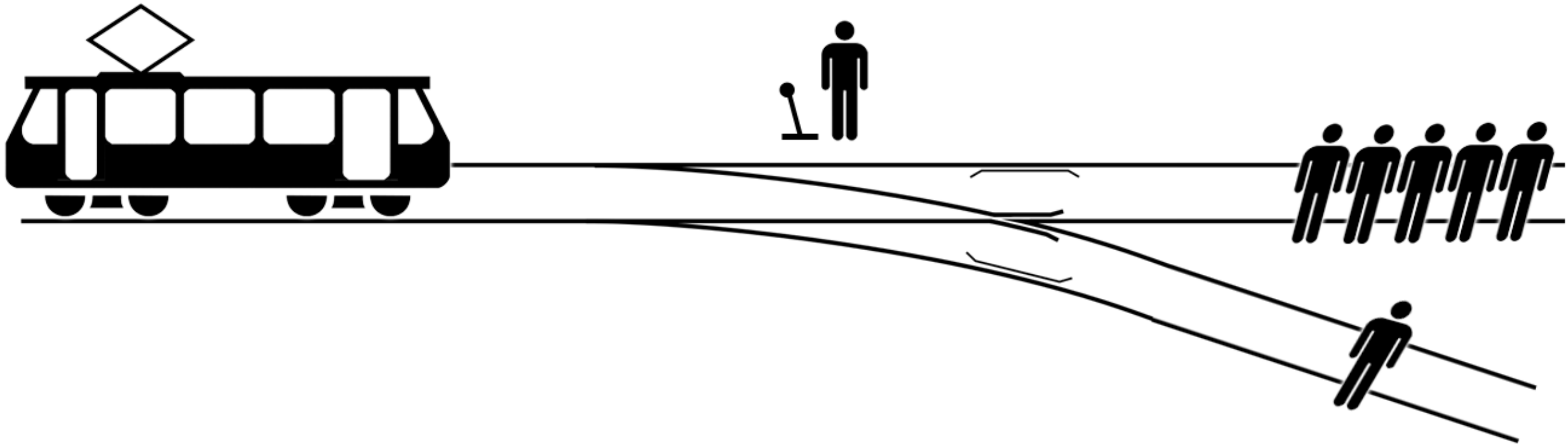# Ethical Issues

In Business Analytics

Emerson S. Bañez

Introduction

What is Ethics?

Introduction: What is Ethics?

Introduction: What is Ethics?

Code of Ethics

Introduction: What is Ethics?

Legal Obligations

Introduction

Why Ethics?

Concerns
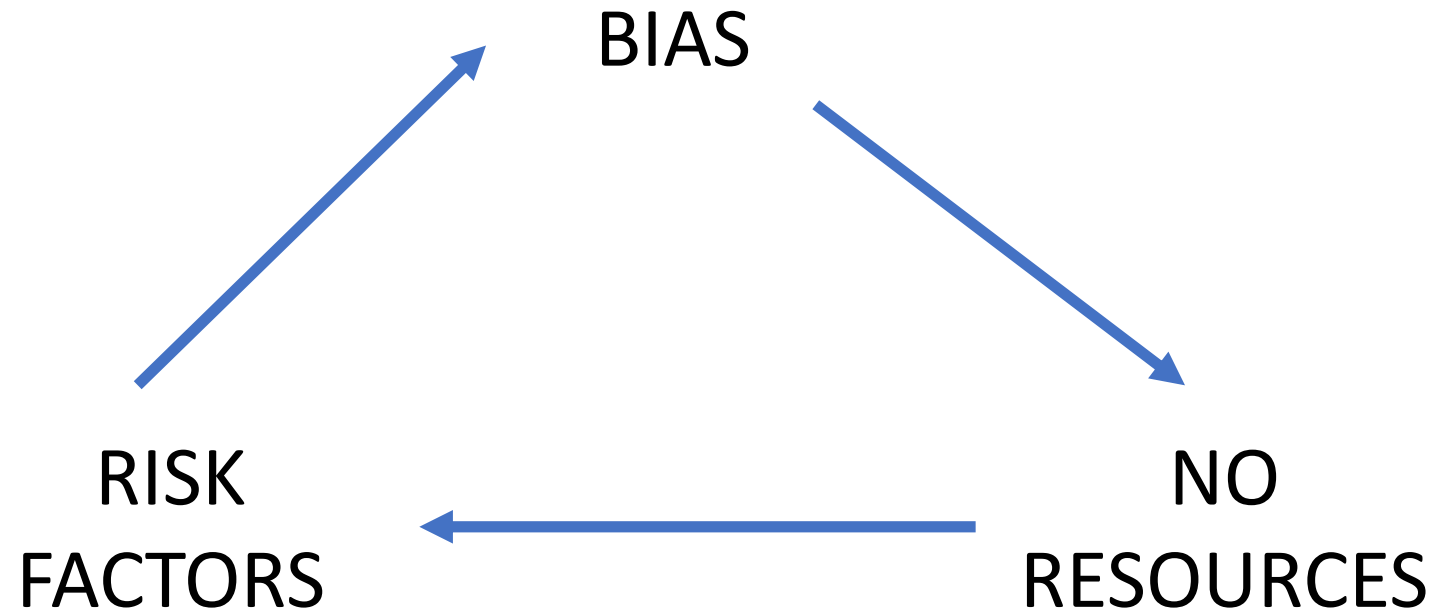
Discrimination & Bias

Integrity

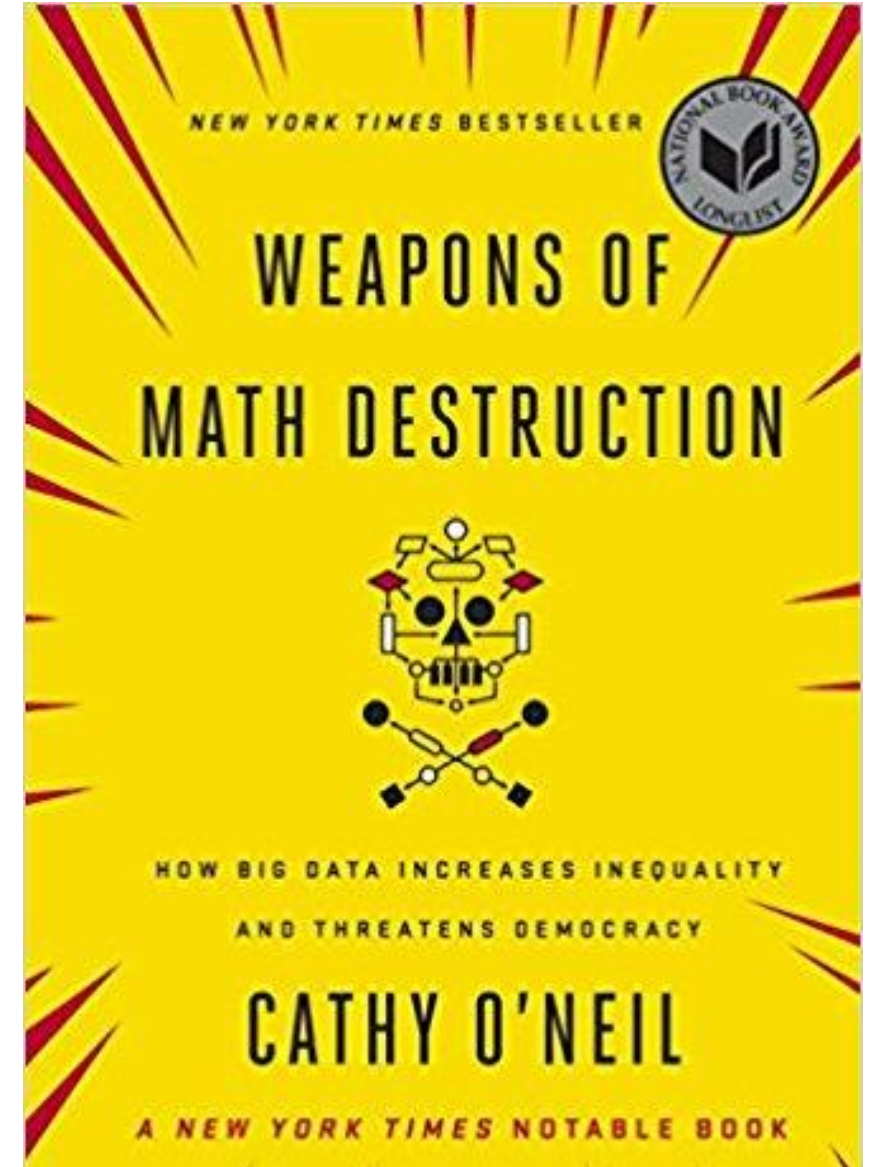Lack of Transparency

Data Privacy Law

Concerns

Discrimination & Bias

Concerns: Discrimination

Concerns: Discrimination

These are only tools, not ends in themselves
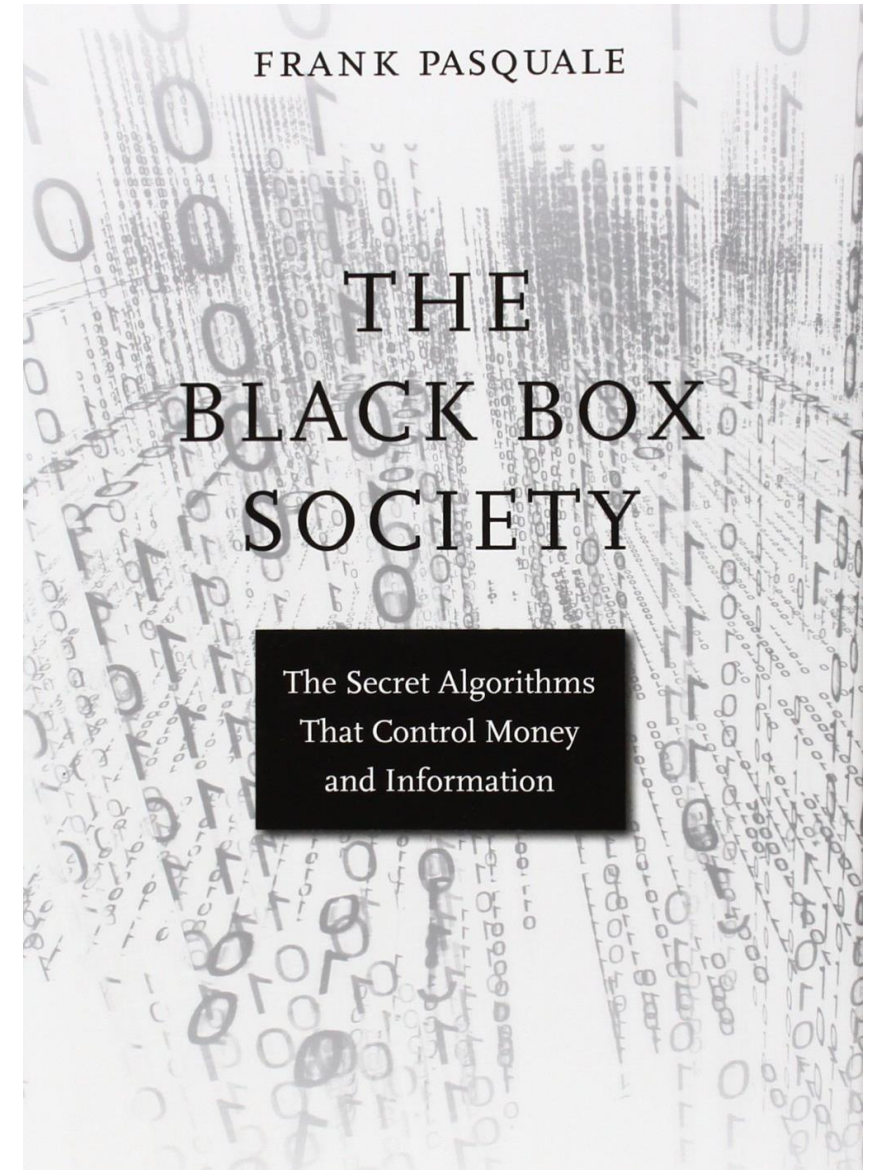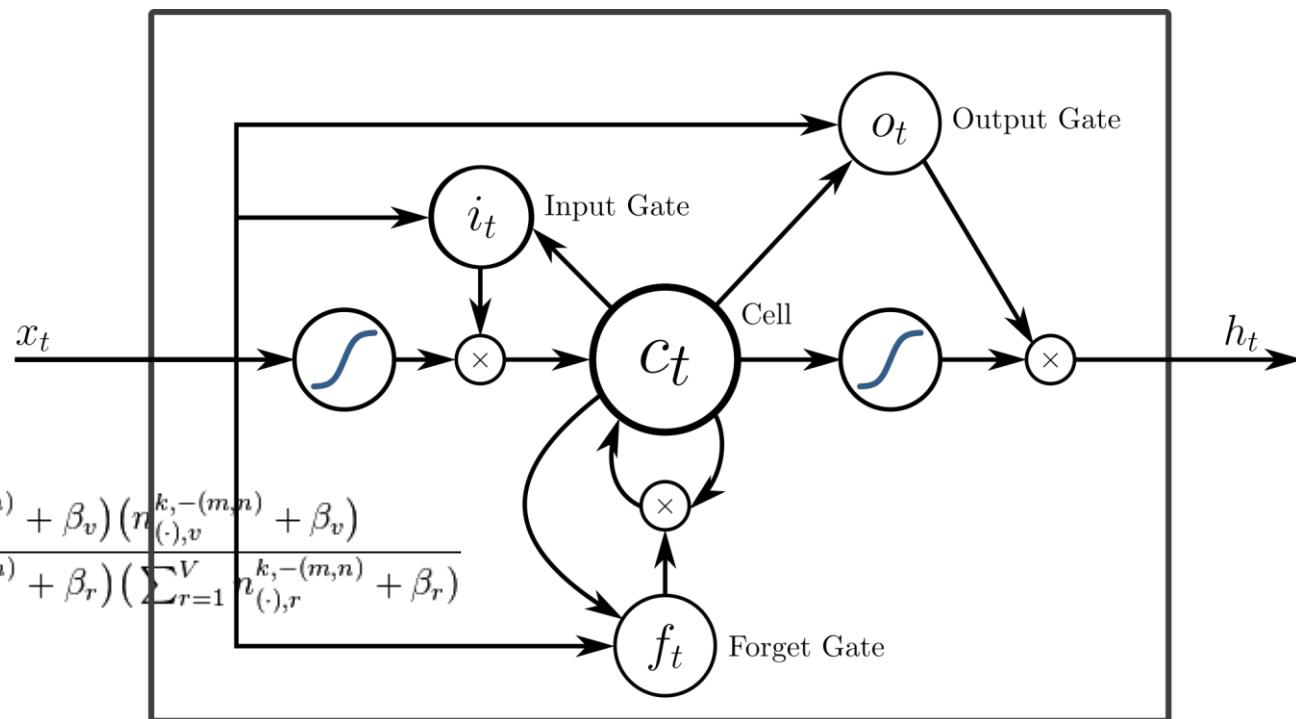
Concerns

Integrity

Concerns

Transparency

Concerns: Transparency

- What is black box?
- Can be convenient
- But opaque

FRANK PASQUALE

THE
BLACK BOX
SOCIETY

The Secret Algorithms
That Control Money
and Information

Concerns: Transparency

$$\propto \frac{\prod_{i\neq k} \Gamma(n_{m,(\cdot)}^{i,-(m,n)} + \alpha_i)}{\Gamma\left(\left(\sum_{i=1}^{K} n_{m,(\cdot)}^{i,-(m,n)} + \alpha_i\right) + 1\right)} \prod_{i\neq k} \frac{\Gamma(n_{(\cdot),v}^{i,-(m,n)} + \beta_v)}{\Gamma\left(\sum_{r=1}^{V} n_{(\cdot),r}^{i,-(m,n)} + \beta_r\right)}$$

$$\times \Gamma(n_{m,(\cdot)}^{k,-(m,n)} + \alpha_k + 1) \frac{\Gamma(n_{(\cdot),v}^{k,-(m,n)} + \beta_v + 1)}{\Gamma\left(\left(\sum_{r=1}^{V} n_{(\cdot),r}^{k,-(m,n)} + \beta_r\right) + 1\right)}$$

$$\propto \frac{\Gamma(n_{m,(\cdot)}^{k,-(m,n)} + \alpha_k + 1)}{\Gamma\left(\left(\sum_{i=1}^{K} n_{m,(\cdot)}^{i,-(m,n)} + \alpha_i\right) + 1\right)} \frac{\Gamma(n_{(\cdot),v}^{k,-(m,n)} + \beta_v + 1)}{\Gamma\left(\left(\sum_{r=1}^{V} n_{(\cdot),r}^{k,-(m,n)} + \beta_r\right) + 1\right)}$$

$$= \frac{\Gamma(n_{m,(\cdot)}^{k,-(m,n)} + \alpha_k)\left(n_{m,(\cdot)}^{k,-(m,n)} + \alpha_k\right)}{\Gamma\left(\sum_{i=1}^{K} n_{m,(\cdot)}^{i,-(m,n)} + \alpha_i\right)\left(\sum_{i=1}^{K} n_{m,(\cdot)}^{i,-(m,n)} + \alpha_i\right)} \frac{\Gamma\left(n_{(\cdot),v}^{k,-(m,n)} + \beta_v\right)\left(n_{(\cdot),v}^{k,-(m,n)} + \beta_v\right)}{\Gamma\left(\sum_{r=1}^{V} n_{(\cdot),r}^{k,-(m,n)} + \beta_r\right)\left(\sum_{r=1}^{V} n_{(\cdot),r}^{k,-(m,n)} + \beta_r\right)}$$

$$\propto \frac{\left(n_{m,(\cdot)}^{k,-(m,n)} + \alpha_k\right)}{\left(\sum_{i=1}^{K} n_{m,(\cdot)}^{i,-(m,n)} + \alpha_i\right)} \frac{\left(n_{(\cdot),v}^{k,-(m,n)} + \beta_v\right)}{\left(\sum_{r=1}^{V} n_{(\cdot),r}^{k,-(m,n)} + \beta_r\right)}$$

$$\propto \left(n_{m,(\cdot)}^{k,-(m,n)} + \alpha_k\right) \frac{\left(n_{(\cdot),v}^{k,-(m,n)} + \beta_v\right)}{\left(\sum_{r=1}^{V} n_{(\cdot),r}^{k,-(m,n)} + \beta_r\right)}.$$

Concerns

Privacy

Concerns

Data Privacy Act

Addressing Concerns

Consent Required

Addressing Concerns: Data Privacy Act

The Right to be Informed

Addressing Concerns: Data Privacy Act

The Right to Access

Addressing Concerns: Data Privacy Act

The Right to Rectify

Addressing Concerns: Data Privacy Act

The Right to Complain

Addressing Concerns: Data Privacy Act

Data Protection

Summary

- Ethical dilemmas
- Discrimination/Bias, Integrity, Transparency, Privacy
- Professional Codes/Voluntary Codes
- Legal Duties under the Data Privacy Act