The Ethics Of Analytics

Bill Franks
Chief Analytics Officer
Model Bias Isn’t Just In The Scores
GDPR Is Here . . . And Expanding
Where Does Ethics Need Consideration?

Everywhere!

Zone where ethics is relevant
Ethics Check Point #1: Model Targets / Business Problems
Fair Or Foul?
Different organizations make different choices
Three Critical Questions About Privacy Standards

1. What is legal?
2. What is ethical?
3. What will customers / consumers find acceptable?

Ignore these questions at your own peril!
The Ethics Of Censorship Algorithms
Ethics Check Point #2: Model Input Data
A Core Bias Is That Models Use Past Data

Therefore, you get “as-is” versus “should-be” answers!
Who Owns IoT Data?

Connected products make ownership less clear, leading to privacy and legal issues.
Ethics Check Point #3: Model Transparency & Monitoring
Al’s Unexplananability Can Lead To Odd Situations

“Does your car have any idea why my car pulled it over?”

Source: The New Yorker
What Happens Under The Hood?

There are ideas for making deep learning more transparent and understandable.

Original Image
\[ P(\text{tree frog}) = 0.54 \]

Sources: Marco Tulio Ribeiro, Pixabay
Extreme Care Is Required

With power comes responsibility and risk!!!
Ethics Check Point #4: Model Usage
Context Is Critical!

Teaching AI models context may be the hardest part.
Don’t Let Exceptions Drive The Rules

Focus on the net gains instead
Ethics Check Point #5: Defining Policies
Beware Of Privacy Catch-22’s

The lack of legal and ethical clarity can lead to surprising decisions
Organizations Must Take A Stand

Clarity is important!
Five Check Points To Address Ethics

1. Setting Model Targets / Business Problems
2. Model Input Data
3. Model Transparency & Monitoring
4. Model Usage
5. Defining Policies
Laws And Public Opinion Must Catch Up
The Analytics Community Must Take Ownership

Ethics is everyone’s responsibility!
Steps To Take Today

1. Make ethics a priority
2. Set up an ethical review board
3. Develop written ethical guidelines & take violations seriously
4. Aim for transparency and fairness
5. Always put yourself in the shoes of those being analyzed!
Further Questions Or Comments?

✉️ BFranks@iianalytics.com
🌐 www.Bill-Franks.com
🐦 Twitter: @BillFranksGA
Rate today’s session
ABOUT IIA

COMPETING ON ANALYTICS FROM THE BEGINNING

Founded in 2010 by Jack Phillips and Tom Davenport with the belief that . . .

• **Competing on analytics** is the future
• Success will be a **strategic** imperative, but **difficult** to achieve
• Success will require specialized and leveraged **expertise**

Industry recognized foundational research from IIA’s Tom Davenport, Robert Morison & Bill Franks
IIA helps **develop** and **sustain** enterprise analytics capabilities that drive performance and create competitive advantage.

IIA focuses on the key levers of success and maximum return:

- **Access to Expertise**
- **Skills Development**
- **Measurement**