

SCALING DATA SCIENCE & ANALYTICS

Bill Franks
Chief Analytics Officer



INTERNATIONAL
INSTITUTE FOR
ANALYTICS.

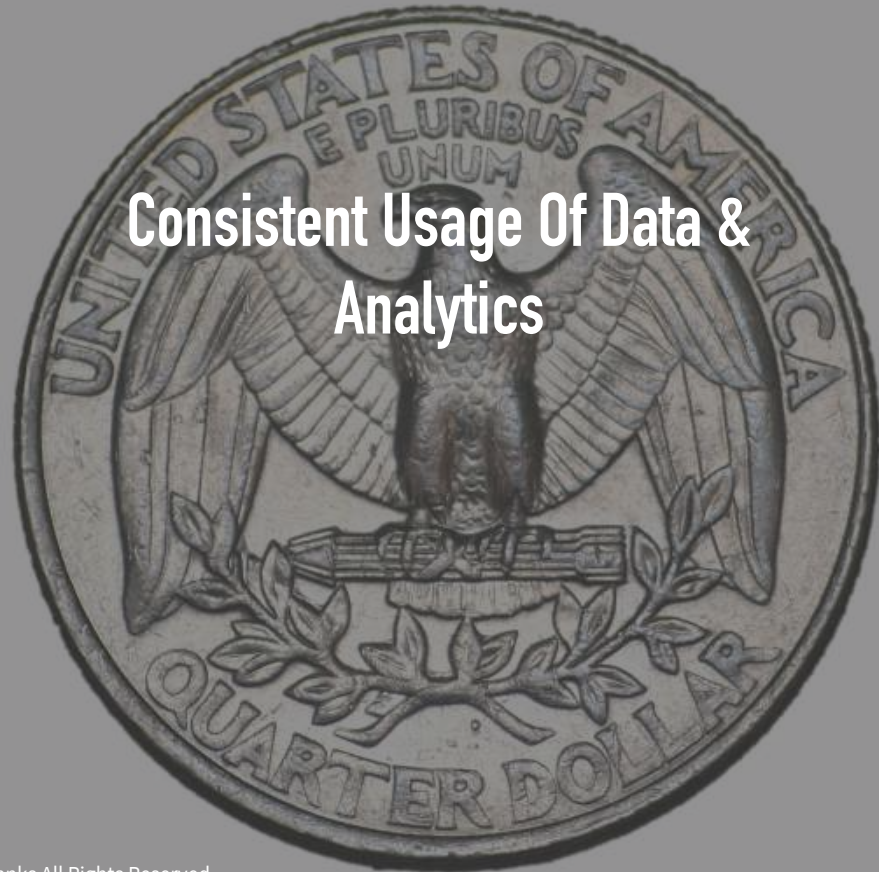
It's Time To Require Analytics In Business Plans



Who Cares What They Call It?



The Problem Of Scaling Analytics Has Two Sides:



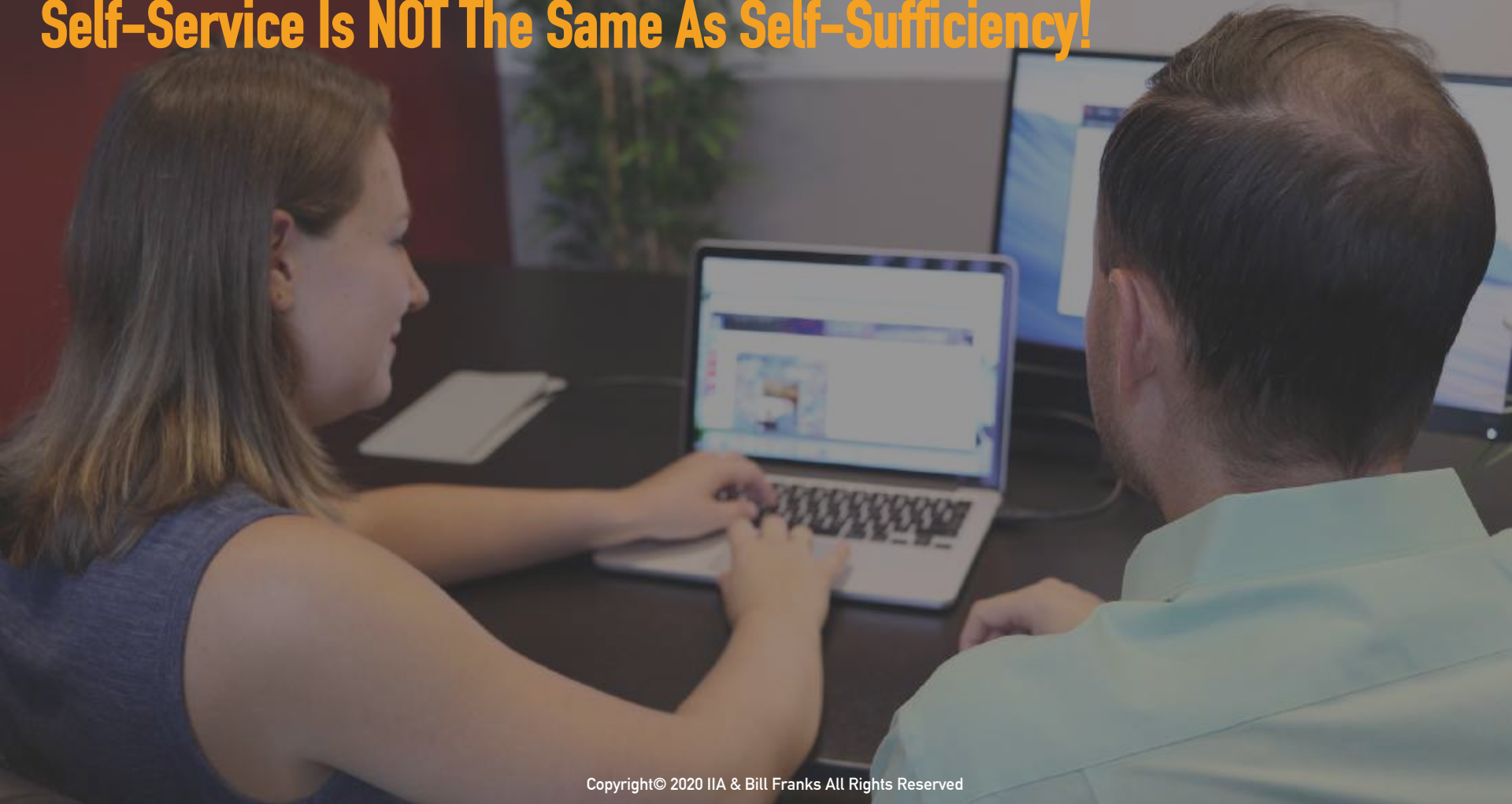
Multiple Versions Of A Metric Are Ok . . .

. . . If They Are Documented & Understood

“Self-Service” Means Different Things To Different Roles



Self-Service Is NOT The Same As Self-Sufficiency!



Democratizing Data Science Is Not As Risky As Many Fear



Deploying A Discovery Isn't Always A Big Effort

There are several paths that operationalizing a discovery can take

1. A policy or procedure needs to be changed & no other effort is needed
2. Simple logic can be built into operational systems & business processes
3. Sophisticated logic and process changes are required

Build Complexity In Phases

Add more complexity after the prior layers are fully deployed and stable

Truck Delivery Route
Optimization Example:
3 - Optimize In Real Time

2 - Optimize Daily Route

1 - Optimize Truck Contents



Validate The Ability To Operationalize

At enterprise scale, it is not possible to look at functionality alone ...



Goal: Good Enough, Not Perfect

Don't aim to maximize the quality of each individual decision ...



... but rather to maximize the aggregate impact
of a process across all decisions

The Netflix Prize Was Won . . .

... but the winning solution was never implemented!



The screenshot shows the Netflix Prize Leaderboard with a 'COMPLETED' banner. The table lists the top 10 teams, their scores, and their improvement over the baseline.

Rank	Team Name	Score	Improvement	Score
1	Team Leaning Tower of Pise	10.06	0.000000	10.06
2	Team 7	10.06	0.000000	10.06
3	Team 2	10.06	0.000000	10.06
4	Team 3	10.06	0.000000	10.06
5	Team 4	10.06	0.000000	10.06
6	Team 5	10.06	0.000000	10.06
7	Team 6	10.06	0.000000	10.06
8	Team 8	10.06	0.000000	10.06
9	Team 9	10.06	0.000000	10.06
10	Team 10	10.06	0.000000	10.06

Image source: Netflix



Image source: Netflix

Theoretical value is irrelevant in the absence of a way to pragmatically realize it!!!

Steps To Take Today

1

Make analytics part of every business initiative

2

Focus on both proper creation and proper usage of analytics

3

Don't mistake self-service for full self-sufficiency

4

Remember that operationalizing builds on the basics

5

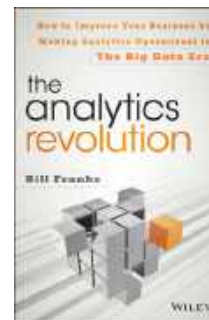
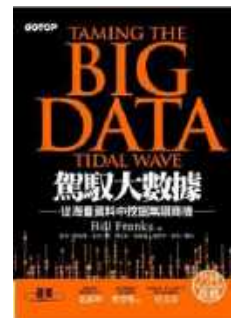
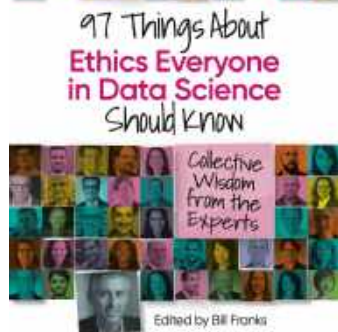
Make sure to plan for operationalizing from the start

Further Questions Or Comments?

 BFranks@iianalytics.com

 www.Bill-Franks.com

 Twitter: @BillFranksGA



Brand New Update!

I just joined Kennesaw State University this past week as part of the Analytics & Data Science Institute



I will be heading the Center For Statistics And Analytical Research:
<https://datascience.kennesaw.edu/csar/index.php>

