Facilitating Engagement with Analytics Cases
– IT and Business Analytics Teaching Workshop 2019

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More Universities Shut Down Traditional M.B.A. Programs as Popularity Wanes

Applications to full-time M.B.A. programs have been fallin
schools to shift resources online

FINANCIAL TIMES

Feature of the Week MBA + Add to myFT

The rise and rise of the flexible MBA

The full-time degree is losing its appeal as students become unwilling to leave the workforce

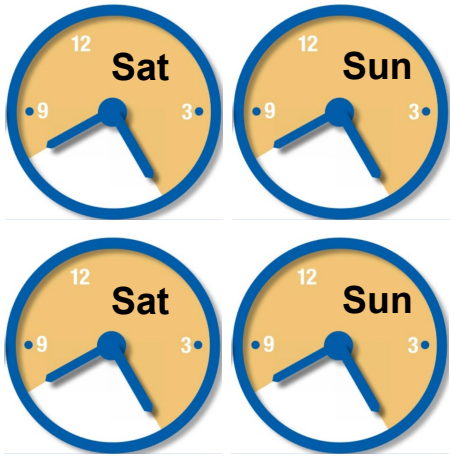
https://www.wsj.com/articles/more-universities-shut-down-traditional-m-b-a-programs-as-popularity-wanes-11559727000
https://www.ft.com/content/6d88a168-73ce-11e4-82a6-00144feabdc0

MIS 5001 - Information Technology Management - Fall ...

MIS 5001 Sec 401 - Survival Strategies in the Age of Amazon - Fall 2018

August 18, 19, 25, and 26, TUCC #521

Prof. Min-Seok Pang (minspang@temple.edu)



MIS 5801 - Managing Information in the Enterprise …

FOX | Executive MBA

Survival Strategies in the Age of Amazon

Meet Your Instructor: **Prof. Min-Seok Pang**

Class Syllabus

Class Agenda

Pre-Session: September 25

Friday Session: October 5

Saturday Session: October 6

Sunday Session: October 7

Post-Session: October 16

Frequently Asked Questions

Facilitating Engagement with Analytics Cases

https://www.naceweb.org/career-development/best-practices/how-to-make-classroom-presentations-more-interesting/
https://blogs.cdc.gov/publichealthmatters/2012/05/teaching-preparedness-through-a-zombie-outbreak/
https://www.gettyimages.com/detail/photo/we-never-turn-down-a-beer-gathering-royalty-free-image/861276228

Part-Time MBA Agenda

Date	Topic	Cases
#1 (Sat)	Introduction / IT-Enabled Strategies	HBS Case – GE Industrial Internet MIT CISR Case – Trinity Health
#2 (Sun)	Business Analytics	Ivy School Case - UCB HBR – Algorithm or Your Gut?
#3 (Sat)	Disruptive Innovation / Digital Platform	Hass School Case – Castlight HBS Case – Intuit Quickbooks HBS Case – Airbnb
#4 (Sun)	Cybersecurity / Future of Work	HBS Case – Caregroup HBS Case – iPremier

Executive MBA Agenda

Session	Topic	Cases
Pre (online)	Introduction	
Fri	IT-Enabled Strategies / Disruptive Innovation	HBS Case – GE Industrial Internet Hass School Case – Castlight HBS Case – Airbnb
Sat	Digital Platform / Business Analytics	HBS Case – Intuit Quickbooks Ivy Case – UCB HBR – Algorithm or Your Gut?
Sun	Cybersecurity / Future of Work	HBS Case – Caregroup HBS Case – iPremier
Post (online)	Group Project Presentations	

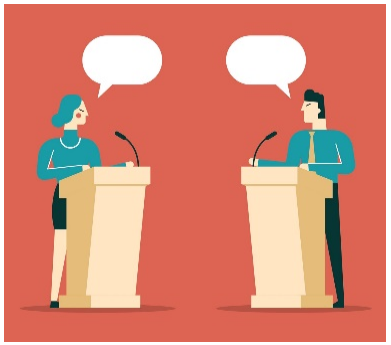
A Typical Daily Schedule

	Start	End	Minutes
Sub-Session #1	8:00	9:10	70
Break	9:10	9:20	10
Sub-Session #2	9:20	10:30	70
Break	10:30	10:40	10
Sub-Session #3	10:40	11:50	70
Lunch Break	11:50	12:50	60
Sub-Session #4	12:50	14:00	70
Break	14:00	14:15	15
Sub-Session #5	14:15	15:25	70
Break	15:25	15:40	15
Sub-Session #6	15:40	16:50	70
Wrap-up	16:50	17:00	10

How to Prevent Zombie Attacks?

- Don't lecture them (or you will become one).
- Variety, Engagements, Interactions

YouTube



Min-Seok Pang

Video Collection for My Information Systems Classes

Unfriended: The Facebook IPO Debacle - WSJ In Depth

Delta Air Lines glitch grounds passengers worldwide - CBC News

https://sites.google.com/site/minspang/video-lib

Business Analytics for 8 am – 5 pm

8 – 9 am	Fishing Game
9 – 11 am	Predictive Analytics with R
11 am – noon	Data Visualization with Tableau
1 – 2 pm	Analytics Strategy – UCB Case
2 – 3 pm	Group project – What's your data strategy?
3 – 4:30 pm	Challenges in Analytics – Algorithm or Gut Case

HARVARD | BUSINESS | SCHOOL

9-614-032

REV: MARCH 9, 2015

KARIM R. LAKHANI

MARCO IANSITI

KERRY HERMAN

GE and the Industrial Internet

We are the oldest remaining company in the Dow Jones Industrial Average. This is not because we are a perfect company; it is because we adapt. Through the years, we have remained productive and competitive. We have globalized the company, while investing massive amounts in technology, products and services. We know we must change again.

— Jeff Immelt, CEO, General Electric[1]

General Electric (GE) CEO Jeff Immelt (MBA 1982) sat in his office with Chief Marketing Officer Beth Comstock and Vice President Bill Ruh, head of the new GE Software business unit. It was early 2014, and they were reviewing the latest report of completed and potential customer contracts for GE's new Industrial Internet initiative. Now a little over two years after announcing the initiative and betting more than $1 billion on its rollout, GE could already directly attribute over $800 million in sales to the effort. Yet these numbers represented only a tiny portion of GE's annual revenues—close to $146 billion for 2013. Immelt and his team worried: Were they doing enough to give the initiative traction within GE? Could GE, an industrial machines manufacturer, sell outcomes-based services based on analytics and software?

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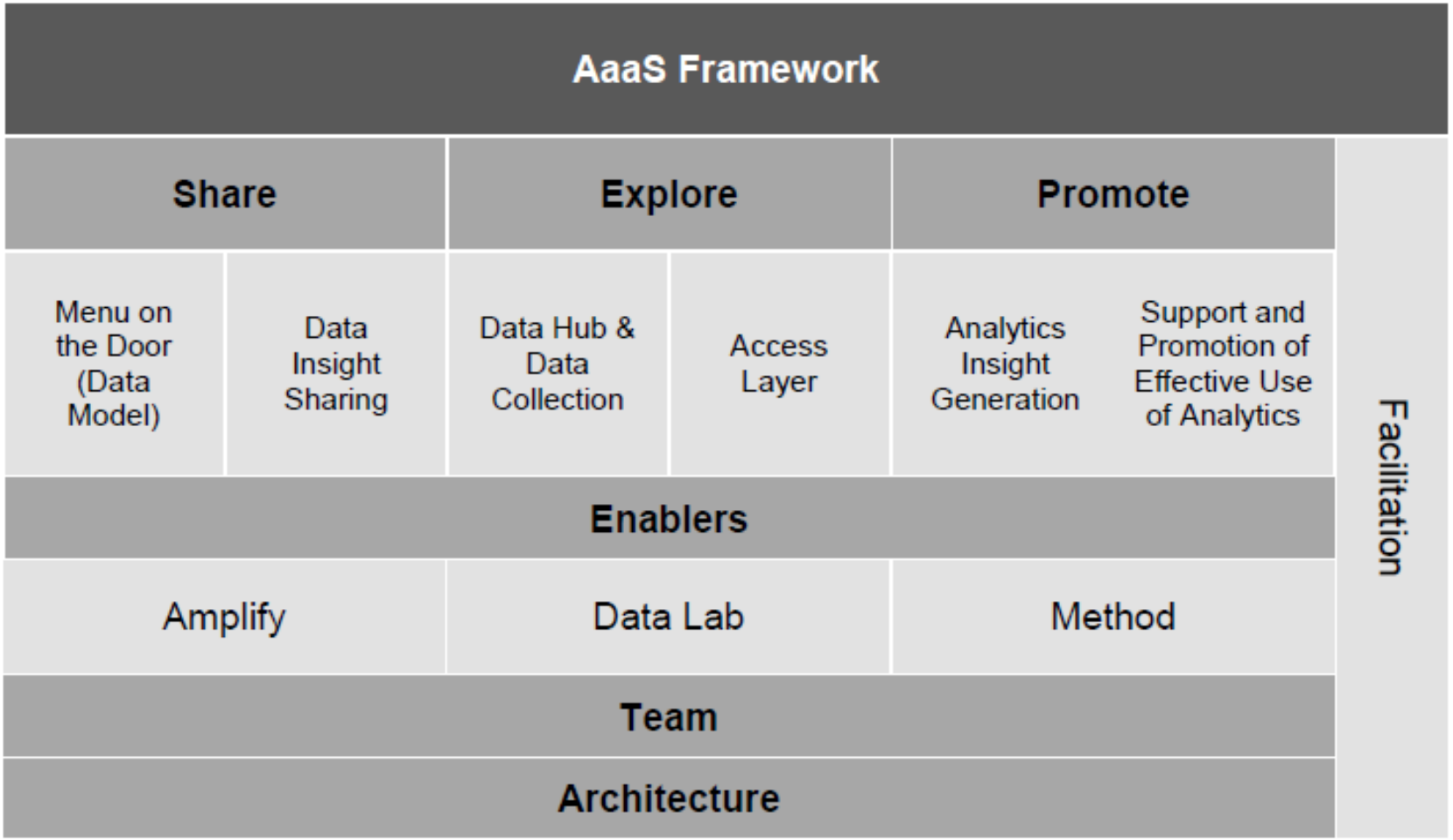
UCB: DATA IS THE NEW DRUG

At the beginning of 2016, Herman De Prins, chief information officer (CIO) at global pharmaceutical company UCB, felt he had made good progress with his data analytics efforts, which focused on neurology and immunology. Since 2014, he had used an "Analytics as a Service" (AaaS) framework to guide his efforts, and had employed a number of projects he called "analytics sprints" to inspire the organization and demonstrate the possibilities of data analytics. Over the past five years, the CIO had worked hard to transform the company's information technology (IT) culture from one of IT suppliers to one of IT entrepreneurs, based on his vision of the future of IT. Still, he could not help feeling a bit frustrated. The pharmaceutical industry had only begun to use real-world data to create patient value. De Prins had laid a solid foundation for accelerating IT in this direction, but the process was no longer solely in his hands. It seemed like the right time to further pull the analytics competency out of the IT domain.

EXHIBIT 5: ANALYTICS AS A SERVICE (AAAS) FRAMEWORK



Discussion Questions with UCB Case

- What is Analytics as a Service (AaaS)? What does it mean by "as a service"?
- What capabilities does AaaS emphasize?
- What roles do De Prins, the CIO, and his IT group play in implementing AaaS?
- What strategic imperatives have driven UCB to institute the AaaS strategy?
- What are the opportunities for AaaS to create value to UCB and patients?

Group Project Question

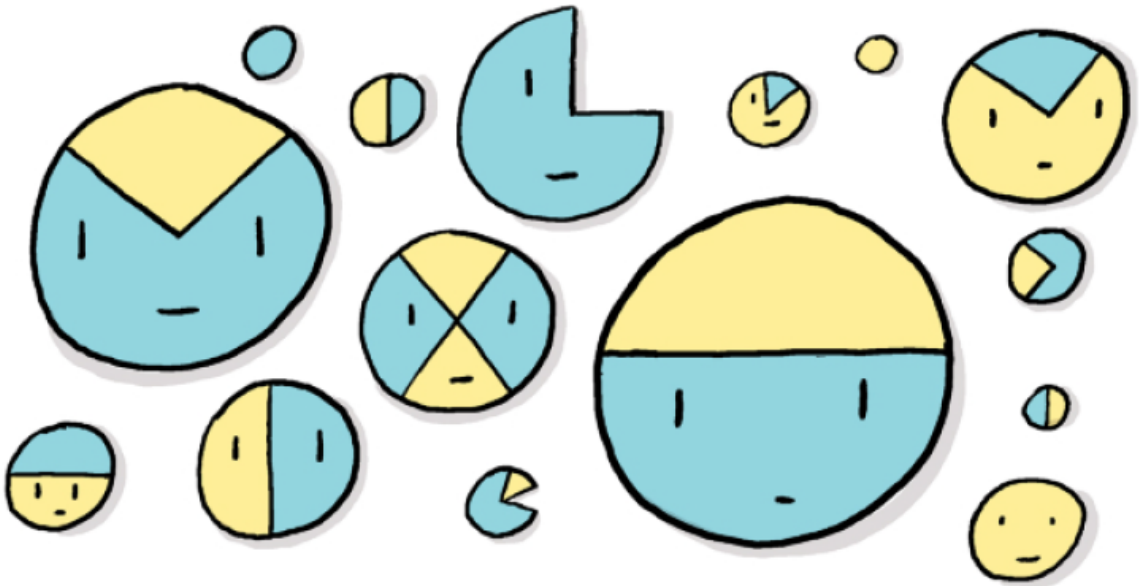
- GE and UCB have unlocked the value and business opportunities from the cornucopia of data accumulated over the years.
- Does your organization have a large amount of data that has been *neglected*?
- Propose a new *value-creating* opportunity from the data in your organization.

http://www.istockphoto.com/photos/gold-mine

MANAGING PEOPLE

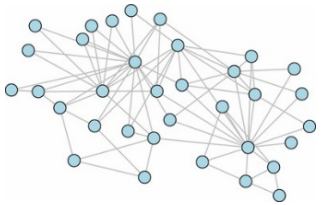
Case Study: Should an Algorithm Tell You Who to Promote?

by Jeffrey T. Polzer
FEBRUARY 28, 2018



https://hbr.org/2018/05/case-study-should-an-algorithm-tell-you-who-to-promote

If you're Aliyah Johns, who would you promote? Why?



Molly Ashworth

Ed Yu

Your Gut vs. Data/Algorithm (1/2)

- When your gut and your data are saying different things, what would you do?

Molly Ashworth

Ed Yu

Your Gut vs. Data/Algorithm (2/2)

- When your gut and your data are saying different things, what would you do?
- Question the data.
  - Is it accurate, representative, unbiased? Is it big enough?
- Question the algorithm.
  - Is it well-tested and calibrated?
  - What are the underlying mechanisms? Can you make sense of the rationales behind its working?
- Data and algorithm are created by humans. It reflects the perspectives and bias of the creators.

Should predicting someone's future be illegal?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BUSINESS

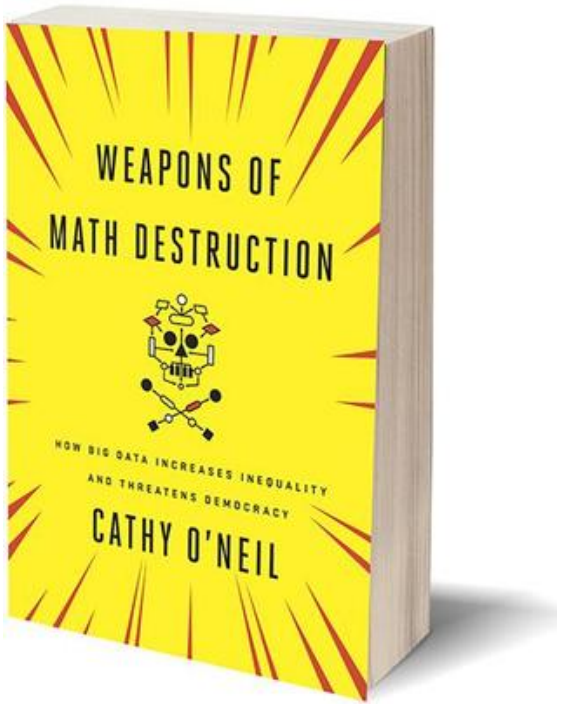
Bosses Tap Outside Firms to Predict Which Workers Might Get Sick

- The mountain of data allows many companies to predict what would happen not only to consumers but also to employees.
- Is this ethical?
- Should this be legal or illegal? If you are to draw a boundary, where should it be?

https://www.wsj.com/articles/bosses-harness-big-data-to-predict-which-workers-might-get-sick-1455664940?mod=e2tw

The Danger of "False Positive"

- Predictive analytics is powerful but not perfect.
- An example of False Positive – Someone is wrongly predicted to commit a crime.
- Anyone should not be punished or discriminated for a false positive.

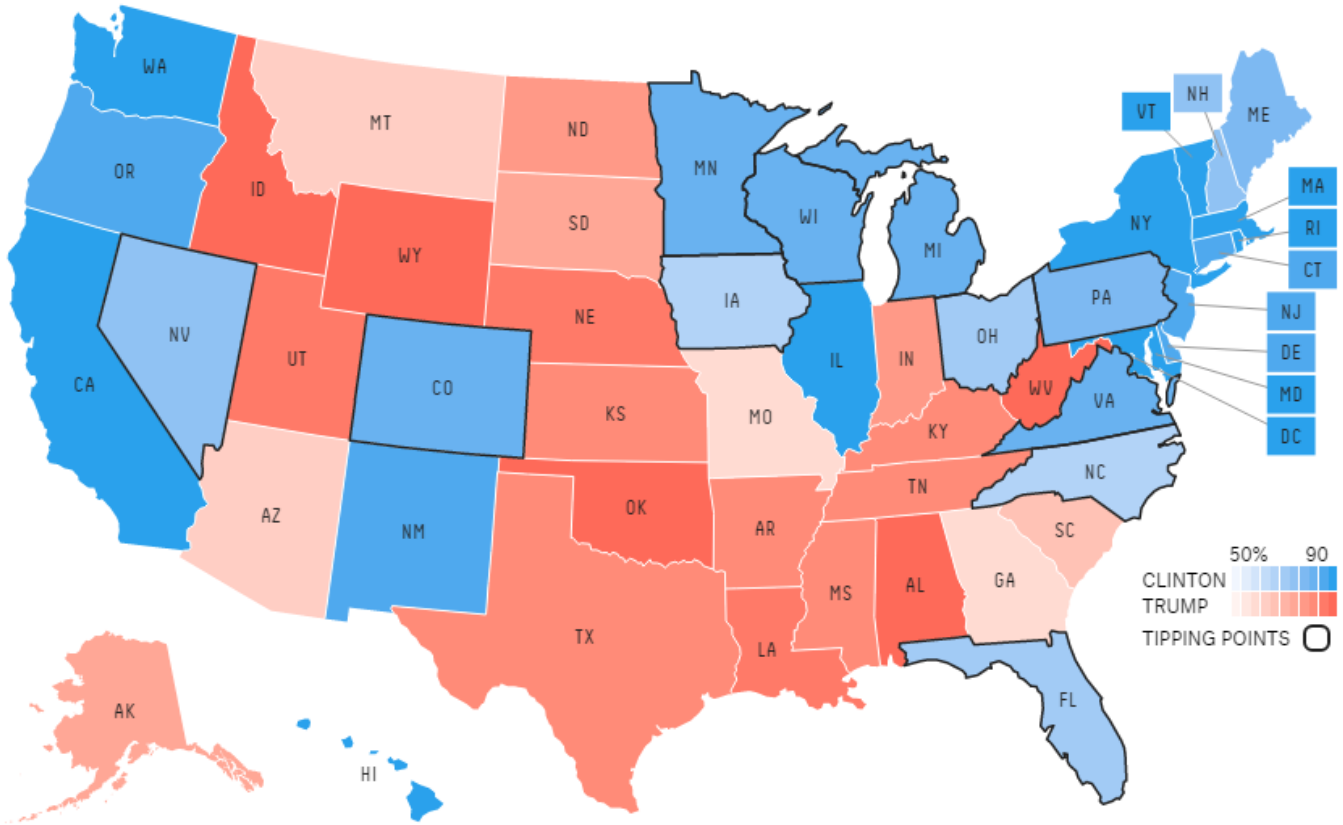


Who will win the presidency?

Chance of winning

Hillary Clinton **83.0%**

Donald Trump **16.9%**



http://projects.fivethirtyeight.com/2016-election-forecast/

Some Takeaways from the 2016 Election

- "Garbage in, garbage out" – With dirty data, you make a dirty prediction.
- The quantitative data failed to capture human sentiments.
- Confirmation bias – You only see what you want to see.
- Big data can't replace human judgement (and vice versa). Both complements each other.
  - But you need diversity in perspectives.
- Predictive analytics predicts the future based on the past.
  - The Trump victory could have been something that couldn't be predicted based on the past elections.

Some Tips for Full-Day Teaching

THANK YOU

Min-Seok Pang
Fox School of Business
Temple University
Jun. 7, 2019