
***Does People Analytics really mean
making better decisions?
Carnegie Mellon University***

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People Analytics as Evidence-Based HR Mgt

EB HR Mgt is the practice of making HR decisions based upon conscientious use of

1. Science-based principles & knowledge
2. Valid & relevant organizational and business facts
3. Critical thinking aided by decision supports

Why Should We Care about EBMgt?

- Better Decisions by Using Practices that Work (and avoiding those that don't!)
- Defensible Decisions that Stand Up to Scrutiny (using best evidence and best process)
- Developing Expertise throughout a Career (experience can be a poor teacher--bad habits!)

20 years of valid experience is different than 1 year of experience repeated 20 times!

What does EBMgt Look Like?



Evidence-based Piloting?

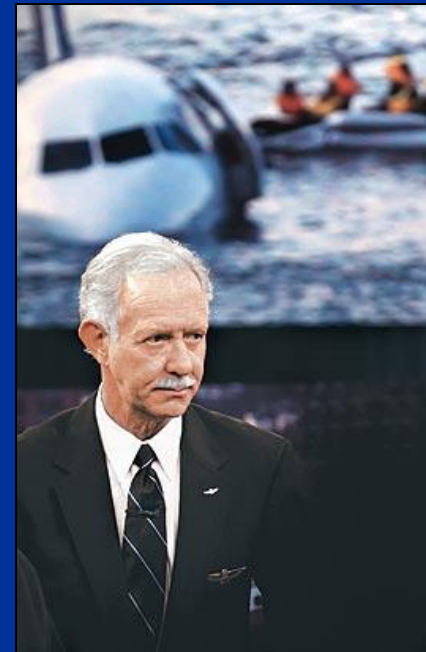


1. Use of Scientific Findings

- Chesley Sullenberger, USAIR pilot, has been a visiting scholar at UC Berkeley's Collaborative for Catastrophic Risk Management since 2007
- He participates in research on how to make decisions to maintain safety despite technological complexity and crisis conditions

2. Reliance on Reliable and Valid Organizational Facts

- Has written and analyzed aviation accident reports for over 20 years
- Walked down aisle twice to ensure all passengers deplaned
- Last act on plane was to get passenger list from cockpit



3. Mindful Decision Making: Becoming Decision Aware

- Formal Education to Prime His Skills: Sully is a graduate of the U.S. Air Force Academy and holds masters degrees from both Purdue University in Industrial Psychology and the University of Northern Colorado in Public Administration
- Used Decision Aids to Support Good Decision: As Sully considered what decision to make that day, he had his copilot review and follow all checklists on board relevant to crash landings
-

In Sullenberger's Own Words...

“One way of looking at this might be that for 42 years, I've been making small, regular deposits in this bank of experience, education and training.

And on January 15, the balance was sufficient so that I could make a very large withdrawal.”

How Is Sullenberger's Example
Relevant to Practicing Evidence-
based HR Management?

EBMgt is a means to
improve decision quality.

»» *It's a career, not a course.*

The Zeitgeist

- Evidence-based practice movements abound in medicine, education, and public policy
- Management research from psychology, engineering, operations research (ETC.) yields 1000s of studies annually
- Internet (scholar.google.com) gives ready access
- Innovative companies now hiring “chief evidence officers”
- Public demands accountability (quality decisions that are defensible)

EBMgt Overcomes Limits of Unaided Decisions

- 
- ▶ Bounded Rationality
 - ▶ The Problem Solvers
Problem Solvers
Individual
Experience
 - ▶ Problem Solvers
Seeks Patterns
Even Random Data

The “Human” Problem

- ▶ Critical Thinking
- ▶ Decision Supports
- ▶ Research
 - Large Ns > individual experience
 - Controls reduce bias

Evidence-Based Practice

Five Good EBMgt Habits

Get Evidence into the Conversation

Use Relevant Scientific Evidence

Use Reliable and Valid Business Facts

Become “Decision Aware” and Use Appropriate Processes

Good EB HR Habits

Get evidence into the conversation

Regularly ask *“what’s the evidence...?”*

Illustration- Discuss with your seatmates...

What’s a practice in your organization that you suspect might not be NOT evidence-based?

Good EBMgt Habits

Learn and use Evidence in Your Area of Practice

- Familiarize yourself with HR Research
- Focus on Business Facts based on valid metrics relevant to your decisions

Reduce dysfunctional variations in practice

Build effective routines, procedures, checklists

What is evidence?

- **Evidence** is not the same as ‘proof’ or ‘hard facts’
- ... can be
 - so strong that no one doubts its correctness, or
 - so weak that it is hardly convincing at all



Don't confuse

- Evidence of effect (do!)
- Evidence of no effect (don't!)
- No evidence of effect (research!)

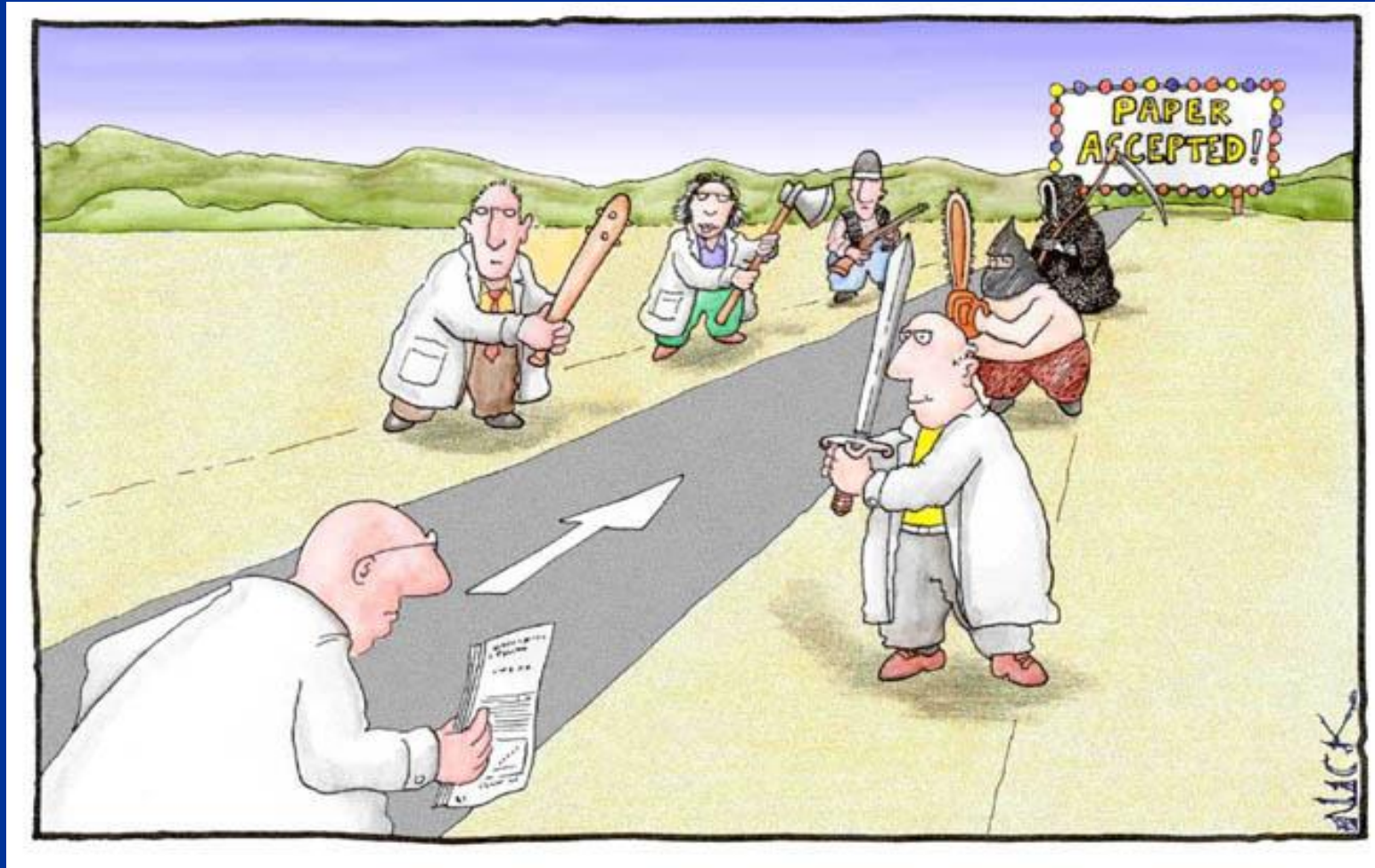
Good EBMgt Habits

Use of Scientific Evidence

Best Scientific Evidence is

- based on large N (sample size of people/organizations)
- well-controlled studies with comparison groups &/or longitudinal data
- peer-reviewed

Peer Reviewed Journals



Good EBMgt Habits

Use Reliable and Valid Business Facts

Best Business Facts are

- large numbers sampled relative to population
(not single or isolated cases, e.g. sales/# sales calls)
- linked to context (season, location, #users, etc.)
- provide key indicators for business decisions

Good EBMgt Habits

Illustration--Discuss with your seatmates...

To what problem is Leadership Training an effective solution?

How would you know? How could you find out?

Gathering Scientific Evidence is a 5-step approach

Email denise@cmu.edu for more info on how to do it yourself

Or, Contact: Center for Evidence-Based Management to commission a rapid evidence review o

Practice Searching for Evidence Using “Google Scholar”

Learning through play !

- Try all buttons
- Make lots of mistakes
- Have fun!
- Just do it!

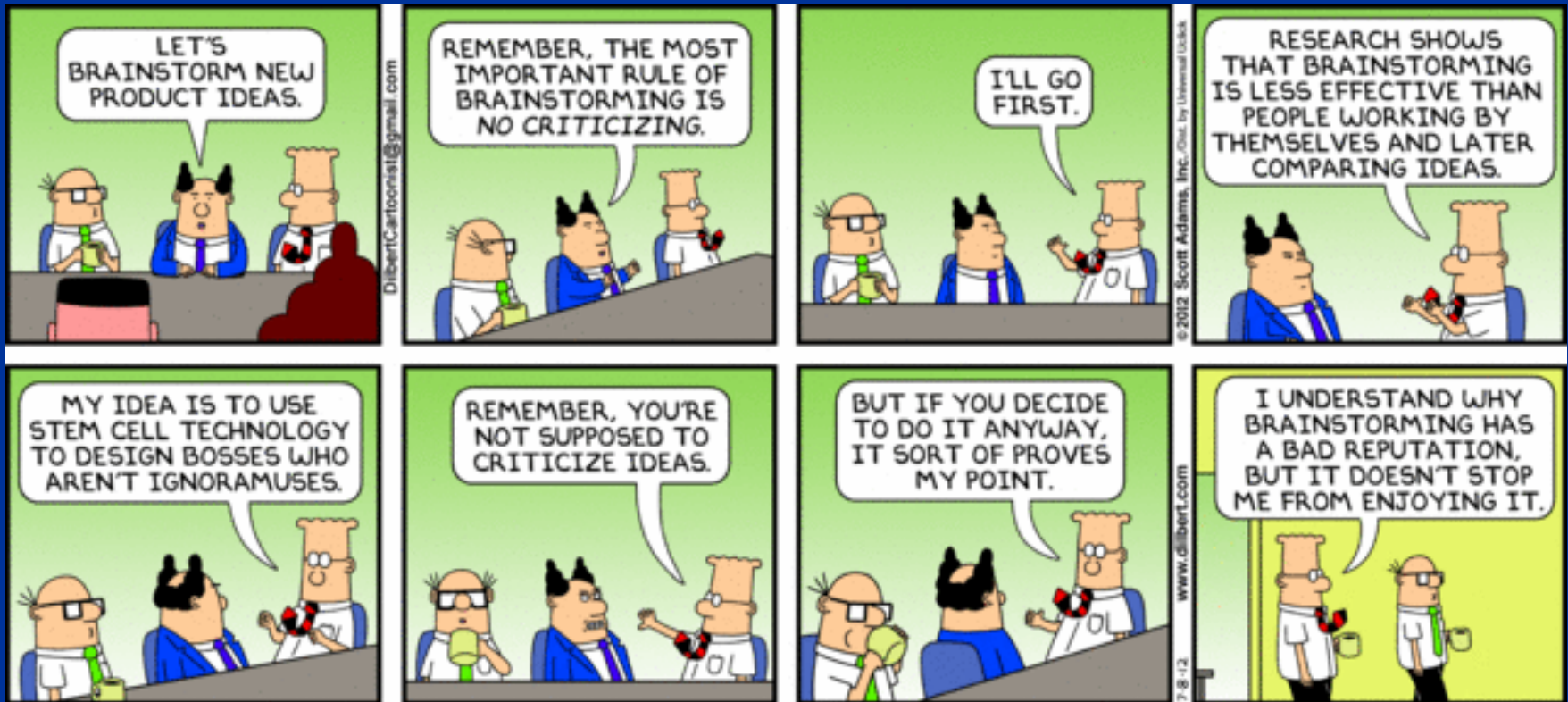


Good EBMgt Habits

Become “Decision Aware”

- What does decision research indicate is best way to make decision with “known unknowns?” (Employees, managers and customers have different concerns regarding new customer service guidelines)
- What’s the best way to make decisions with unknown unknowns? (Setting up HR practices for doing business in Mysterastan)

Using Evidence Well Requires Your Own Critical Judgment: Critical Thinking is Key to People Analytics



Turning Evidence into Practice & Practice into Evidence



Evidence-based management:
closing the gap between research and practice