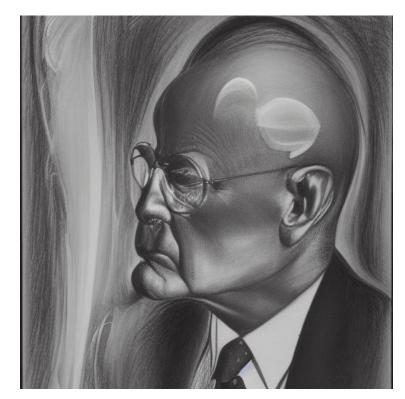
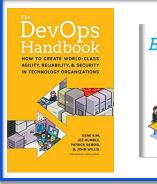
## What Would **Deming Do** In a "Cyber" World?

John Willis Botchagalupe



All Images Generated by OpenAl DALL-E-2

#### @botchagalupe

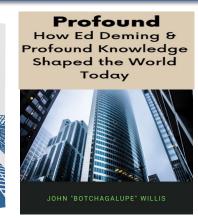


























KeyBanc Capital Markets



kosli









Hello, Botchagalupe Account & Lists -& Orders



Sponsored ®

\$19.80

Buy Again

Pharmacy

Health & Household Prime Video Amazon Launchpad Shopper Toolkit Smart Home Amazon Home Beauty & Perso<u>nal Care Shop Hispanic & Latino goods</u>

Advanced Search

New Releases

Look inside V

Best Sellers & More

Amazon Book Clubs

Children's Books

Textbooks Textbook Rentals Best Books of the Month



Emotional Intelligence for the Modern Leader: A Guide to...

★★★★★ 765 \$11.59 yprime

Books > Business & Money > Industries

Investments Unlimited: A Novel About DevOps, Security, Audit Compliance, and Thriving in the Digital Age Paperback –

September 13, 2022

by Helen Beal (Author), Bill Bensing (Author), Jason Cox (Author), Michael Edenzon (Author), John Willis (Author)



See all formats and editions

Kindle \$10.99



Audiobook 1 Credit

Paperback \$19.80 /prime

Read with Our Free App

7 Used from \$20.59 22 New from \$15.80

In the vein of the bestselling The Phoenix Project and The Unicorn Project, Investments Unlimited radically rethinks how organizations can handle the audit, compliance, and security of their software systems—even in highly regulated industries. By introducing concepts, tools, and ideas to reimagine governance, Investments Unlimited catalyzes a more humane way to enable high-velocity software delivery that is inherently more secure.

Buy new: List Price: \$22.00 1 Save: \$2.20 (10%) √prime FREE Returns Y FREE delivery Fri, Sep 30. Order within 17 hrs 41 mins

O Deliver to John - Auburn 36380



As an alternative, the Kindle eBook is available now and can be read on any device with the free Kindle app. Want to listen? Try Audible.







#### **Quote Wall**

"Learning is not compulsory... neither is survival."

"In God we trust; all others bring data."



"A bad system will beat a good person every time."

"Every system is perfectly designed to get the result that it does."

## **Demingmania**

**Mathematical Physics** 

**Epistemologist** 

**Statistician** 

**Professor** 

**Psychologist** 

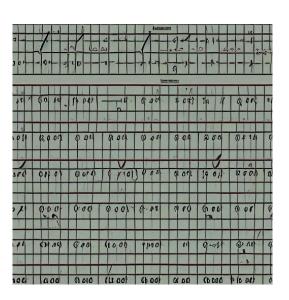
**Systems Thinker** 

**Agriculturist** 

**Industrialist** 

**Devopsist** 

**Futurist** 



In 2011 Marc
Andreessen said
"Software is
Eating the World"



# Software is infecting The World (DevSecOps???)

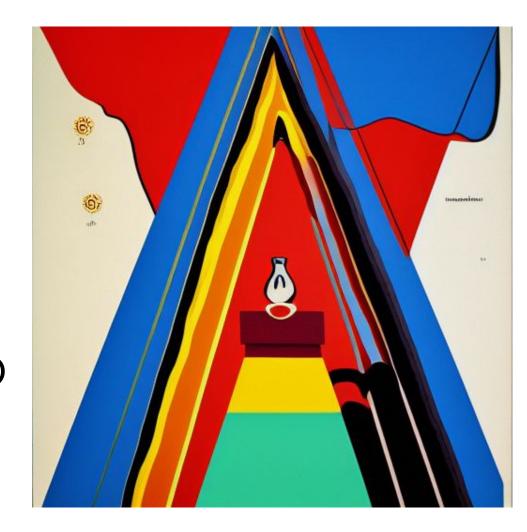
- 2015 Josh Corman



# Software is screwing with...

"Maslow"

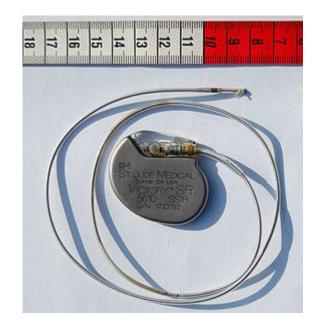
(Health, Food, Water, Shelter)



## **Create Purpose (AIM)**

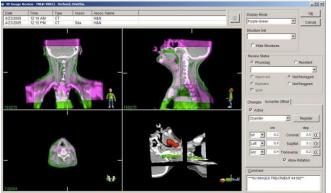
Research says 5,600 hospitals in the US have zero cybersecurity people on staff. Most people in an organization view governance, risk, and compliance (GRC) activities as an annoying inconvenience—something to leave to the IT guys.

**Profound - John Willis** 









#### **Revolution Ransomware (Maslow)**

- Schreiber Foods was hit with \$2.5 million ransomware
- JBS Paid \$11 Million to Resolve Ransomware Attack
- Hackers try to poison the drinking water in Tampa Bay
- Hackers Breached Colonial Pipeline
- Alabama hospital linked to 1st alleged ransomware death

Deming and the "Cyber" Future World



## System of Profound Knowledge (SoPK)

Four Elements as a Lens for understanding Complexity

- Theory of Knowledge
  - O How do we know?
- Theory of Variation
  - O How do we understand?
- Theory of Psychology
  - o How are people motivated?
- Appreciation for a Systems
  - Systems thinking integrates all four.



#### Statistical Data as a Rational Basis for Action

The job of the statistician is to work with experts in the subject-matter to help them to solve their problems. It is the responsibility of the substantive expert to decide with or without help of the statistician, what problems are important and what information or tests or comparisons or other spade-work, resulting in statistical information, might be helpful, and to arrive finally at a meaningful (statistical) statement of the problem and what might be done about it.

The Essential Deming

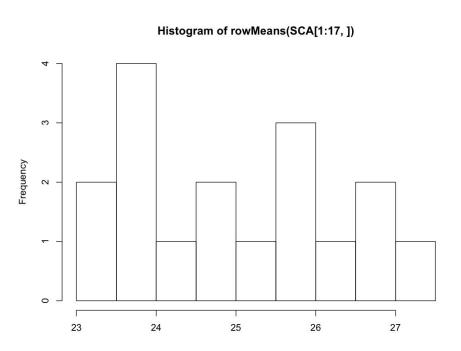
#### **SoPK for IT Risk**

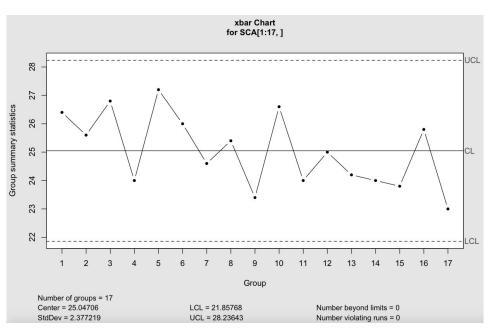
- Risk Control: Container Security Scanning
  - Attestation: "All dependencies in this build satisfy any known vulnerables."
  - Pass/Fail
- Risk Control: Unit tests
  - Attestation: "All tests executed and passed."
  - Percentage
- Risk Control: Information Leakage
  - Attestation: "Secret information observable information defects."
  - Pass/Fail

#### **SoPK for IT Risk**

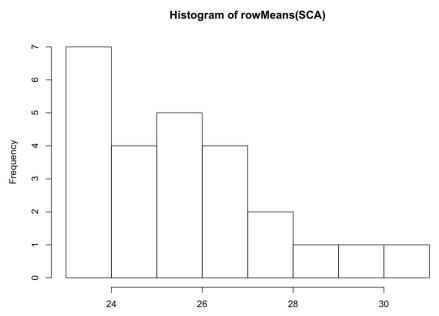
- Risk Control: Container Security Scanning
  - Attestation: "All dependencies in this build satisfy any known vulnerables.
  - Pass/Fail
- Risk Control: Unit tests
  - Attestation: "All tests executed and passed."
  - Percentage
- Risk Control: Information Leakage
  - Attestation: "Secret information observable information defects."
  - Pass/Fail

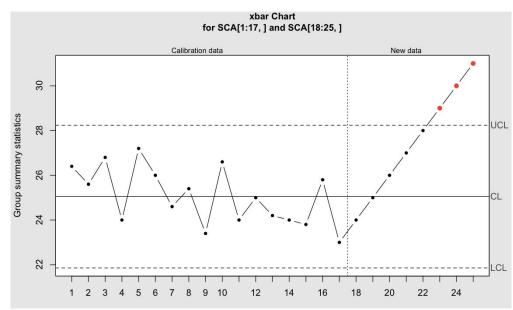
#### **Enumerated Versus Analytical**





#### **Enumerated Versus Analytical**

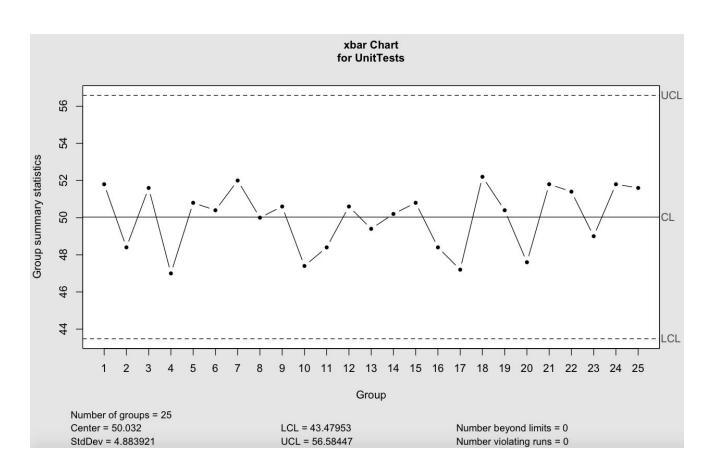




#### SoPK for Kaizen

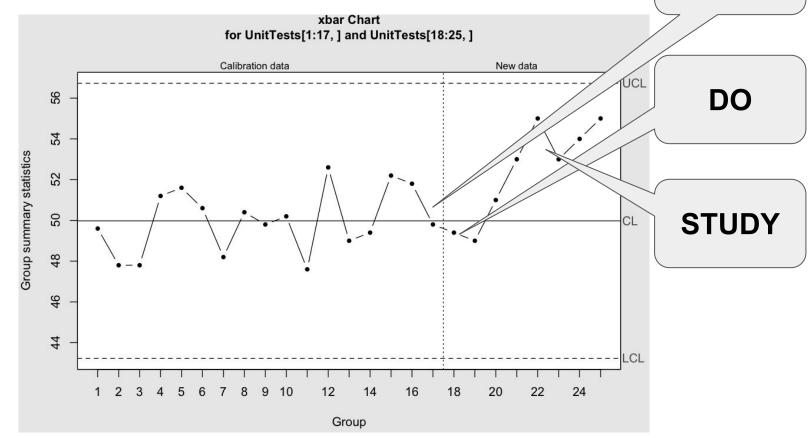
- Risk Control: Container Security Scanning
  - Attestation: "All dependencies in this build satisfy any known vulnerables."
  - Pass/Fail
- Risk Control: Unit tests
  - Attestation: "All tests executed and passed."
  - Percentage
- Risk Control: Information Leakage
  - Attestation: "Secret information observable information defects."
  - Pass/Fail

#### **SoPK for IT Risk**



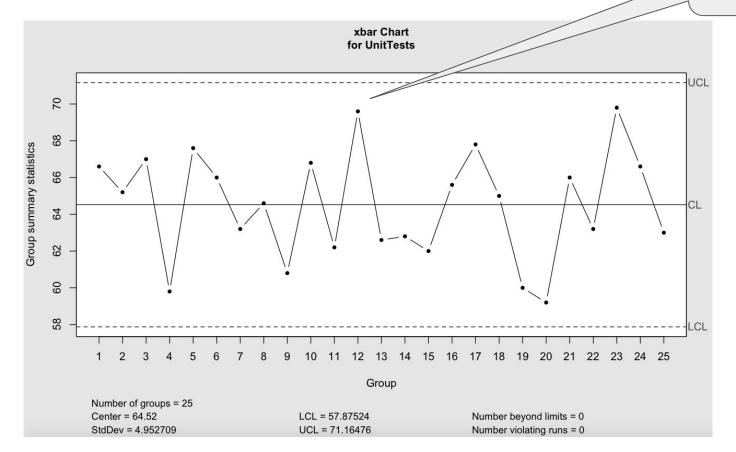






**The New Normal** 

**ACT** 



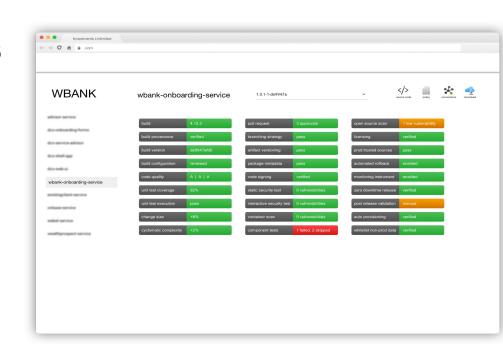
#### **DevOps/DevSecOps Analytical Statistics**

Modern Governance Practices

**Pragmatic SRE Practices** 

DevOps Data Lake

Adaptive Skills Liquidity



# Knight Capital Under the Lens of Profound Knowledge

In 2012, Knight was the largest trader of stocks on the NYSE and Nasdaq. Knight's Electronic Trading Group managed an average of 3.3 billion trades each day, worth over \$21 billion. 440 million lost in 45 minutes.

#### **SEC Cease and Desist**

#### • Knowledge:

• "Second technician to review the code installation"

#### • Variation:

• "Procedures sufficient to ensure an orderly installation of new code nor to prevent the activation of code no longer intended for use"

#### • Physcology:

 "Reasonably designed to guide employees' responses to significant technological and compliance incidents"

#### • Systems:

"Adequate written description of its risk management controls"

#### 14 Points in a Cyber World

- 1. Create constancy of purpose
- 2. Adopt the new philosophy
- 3. Cease dependence on inspection to achieve quality
- 4. End the practice of awarding business on the basis of price tag
- 5. <u>Improve constantly and forever the system of production and service</u>
- 6. Institute training on the job
- 7. <u>Institute leadership</u>
- 8. Drive out fear, so that everyone may work effectively for the company
- 9. Break down barriers between departments
- 10. Eliminate slogans, exhortations, and targets
- 11. Eliminate work standards (quotas) and management by objective
- 12. Remove barriers that rob the hourly worker of his right to pride of workmanship
- 13. Institute a vigorous program of education and self-improvement.
- 14. Put everybody in the company to work to accomplish the transformation

## **#1 Create Purpose**

Schreiber Foods is one of Wisconsin's largest milk providers and second behind Kraft as the largest producer of cream cheese. In Mark Swartz's "Seat at the Table," he asks the question of whether a company is serious about information technology if the CIO doesn't have a direct seat at the executive, board-level table. In the case of Schreiber Foods, they don't even have a seat at the C-Level table for security. Their top security professional, even today, is at a director level. They still don't have a Chief **Security Officer.** 

## **#5 Never Stop Improving**

This is a never ending cat-and-mouse game. The bad guys do bad things while the good guys try to keep up as well as they can. Shannon Lietz takes what I call a uniformity approach. Instead of a purely defensive stance, she takes a proactive stance which she calls adversary management. She monitors the behavior and motivations of attackers. How often do adversaries attack? What's their purpose or aim? What do they target and what do they ignore? How long will they mount an attack before giving up? In effect.

## #7 Don't Manage—Lead

Most organizations have enough resources to resolve only P1 incidents. Managers responsible for cybersecurity are primarily motivated by reducing P1 incidents. The more they see that number shrink, the better they believe things are. Incidents are software quality issues that need to be dealt with quickly and quietly. This is not leadership. This is firefighting. Ed, in contrast, would get rid of the arbitrary four categories and instead use SPC to create a mathematical approach to managing security incidents.

**Profound - John Willis** 

#### #9 No Silos

The US House of Representatives committee investigating the breach found some institutional organizational barriers between the chief information security officer (CISO) and the chief information officer (CIO): the CISO didn't report to the CIO, as you might assume with both of them being responsible for the company's tech. She didn't even report to the CEO. The person responsible for cybersecurity of multibillion-dollar corporation reported to...a lawyer.

**Profound - John Willis** 

#### **#11 Quality, Not Quotas**

A goal that lies beyond the means of its accomplishment will lead to discouragement, frustration, demoralization. In other words, there must be a method to achieve an aim. By what method?

Deming, W. Edwards. The New Economics for Industry, Government, Education, third edition.

#### MBO's, MBR's, OKR's

The required transformation of Western style of management requires that managers be leaders. Focus on outcome (management by numbers, MBO, work standards, meet specifications, zero defects, appraisal of performance) must be abolished, leadership put in place.

Deming, W. Edwards. Out of the Crisis (MIT Press) (p. 54).

#### Management by Means

If you can accomplish a goal without a method, then why were you not doing it last year?

Deming, W. Edwards. The New Economics for Industry, Government, Education, third edition - (Lloyd Nelson)

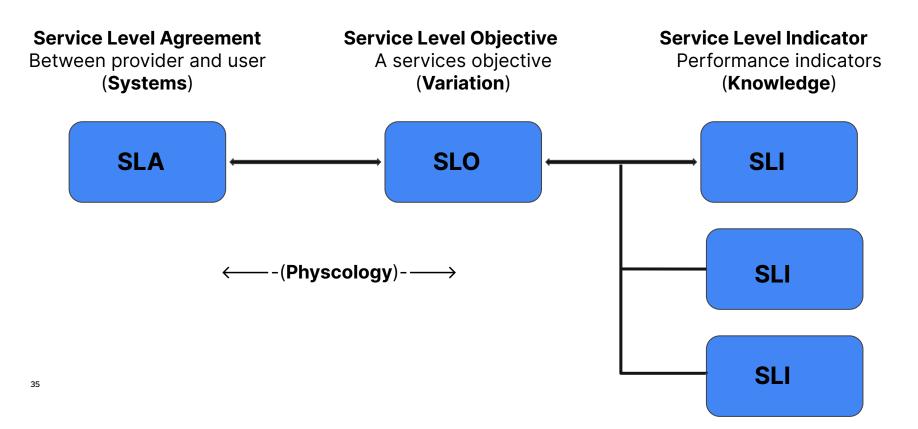
#### In Other Words

Give a "person" a Fish, and You Feed "them" for a Day. Teach a "person" To Fish, and You Feed "Them" for a Lifetime

**Chinese Proverb?** 



## **SRE is Profound Knowledge**



#### **#12 No Barriers to Pride**

I've seen this over and over again in the tech industry. Take one metric for example: KLOC, or "defect per thousand lines of code." One KLOC is considered good: Out of a thousand lines of code, there was only one bug or error. From a deterministic perspective, it's logical to want that number to be as close to zero as possible—100% clean code. Therefore, you would always want that number to be going down.

**Profound - John Willis** 







#### **Profound**

How Ed Deming &
Profound Knowledge
Shaped the World
Today

18 October 2022



## THINK THE BOMBER MAFIA MEETS MONEYBALL.

Dozens of books have been written about William Edwards Deming and his methods that led to Six Sigma and Total Quality Management. None have ever told the story of how he developed his ideas in the first place. PROFOUND fills that gap with neverbefore-seen details and insights as well as the unrecognized impacts of his work, from the US Census to Rosie the Riveter to the Economic Miracle in Japan...much less his influence in lean and agile software development as well as cyberwarfare today. This isn't a biography but a crash course in understanding the fundamentals of Deming's masterwork, the System of Profound Knowledge. Included are stories around Deming, such as a real-life Rosie, a missionary nun to Papua New Guinea, a retired woman who revolutionized software, and a hacker writing US cybersecurity law. The book best fits in the business history genre.

PROFOUND is the Deming book for the 21st century. While dozens of books have been written about Deming and/or his methods (statistical process control, Six Sigma, Total Quality Management), to date no source has revealed how Deming—a farm boy from the badlands of Wyoming-developed his ideas, enshrining them in his System of Profound Knowledge. Virtually none connect the dots of how Deming's experiences early in life uniquely positioned him to be perhaps the only outsider who could catalyze Japan's jumpstart economy, taking the country from the status of a devastated, wartorn developing nation to the second largest economy in the world. No books reveal how Deming influenced the outcome of WWII on multiple fronts. None adequately examine his lasting impact on global manufacturing, the American Quality Revolution of the 1980s, healthcare, and the US Census. None have even made the connection of how Deming's methods directly led to best-in-class software development and set the stage for the technological explosion over the last two decades nor examine how his ideas help us fight cyberterrorism today. Included in the narrative are never-before-seen

stories of those linked to Deming, including his wife (an accomplished statistician), a real-life Rosie the Riveter (the author's mother), a missionary nun to Papua New Guinea who became a Vanderbilt professor and head of quality education at MD Anderson Cancer Center, and an unsung Japanese statistician whose political savvy led to Deming being positioned to help Japan in the first place. PROFOUND corrects several historical inaccuracies and puts to rest the question of whether Deming deserves the accolades he's received over the years. Perhaps most interestingly, the author posits that Deming didn't save Japan—Japan saved Japan. In fact, Deming learned as much from the Japanese as he taught, resulting in a beautiful fusion of East meets West principles and ideas that Deming would evangelize for the rest of his life.



OUTLINE

#### - PROFOUND

#### Contents

Foreword

Preface

1| What Ed Said

The Tarnish of the Golden...

The Miracle Maker

History Repeats Itself

The Story of Profound Kn...

-PART I: FOUNDATIONS OF ...

2| Bound & Non-Determined

How Newton's Apple and ...

Missing the Forest for the...

When the Professor Beca...

3| The Jungle in Paradise

Hawthorne Works

The Makings of Modern A...

The Lowest Degradation ...

4| Quality Control: The Early ...

From the Stone Age to the...

Standardization & the Am...

Go or No-Go?

5l The Root of All Evil

The Celestial Police

Getting Quality Under Stat...

Why Does It Vary?

John Willis - DEMING - Manuscript master

#### **PROFOUND**

How Ed Deming & Profound Knowledge Shaped the World

John "Botchagalupe" Willis



53

#### **Thank You**

#### Websites:

Profound-deming.com

Kosli.com

#### **Twitter:**

@botchagalupe

#### Linkedin:

linkedin.com/in/johnwillisatlanta/

#### **Email:**

john.willis@kosli.com

