



PROJECT MANAGEMENT FOR THE WORLD

**A 24 HOUR GLOBAL CONFERENCE
29- 30 MARCH 2023**

#PM4THEWORLD #PMIMPACT



Strategies Of Adaptive Project Management

From Crust To Core



An experience sharing by Soumen Sarkar

25+ years veteran of Silicon Valley



No Useful Software!

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Who Are You?

Honest existential experience sharing from real life technological disaster management - firefighter survivor.

→ **Disaster**

A release in 2004 caused millions of dollars loses with reputation. CTO exited out after few months.

→ **Burn**

I made a promise to myself to share my experience with Project Management under Chaos.

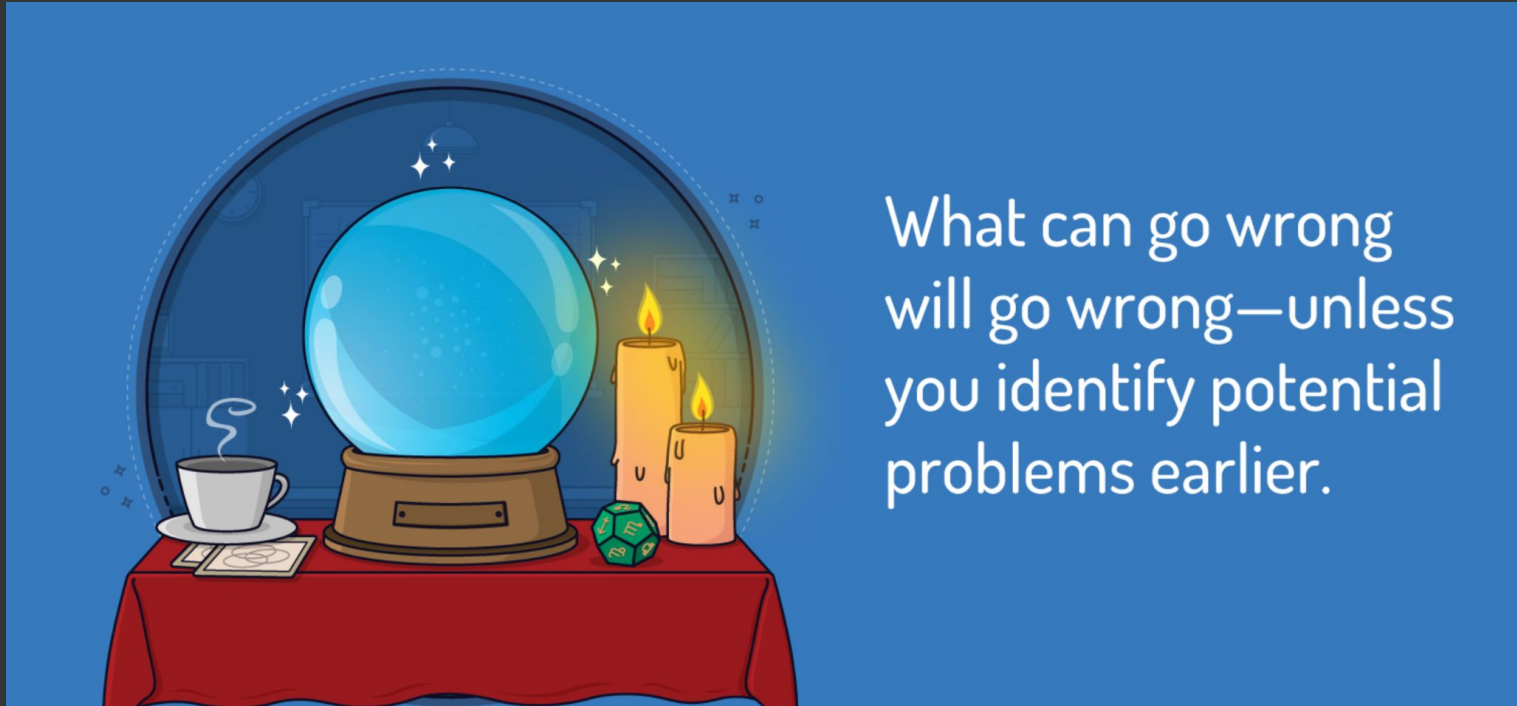
→ **Remember**

I care to prevent harmful stress and burnout.

—

**How many disasters do
you need to experience to
practice Adaptive Project
Management?**

Just one! Or You Are A Fool!

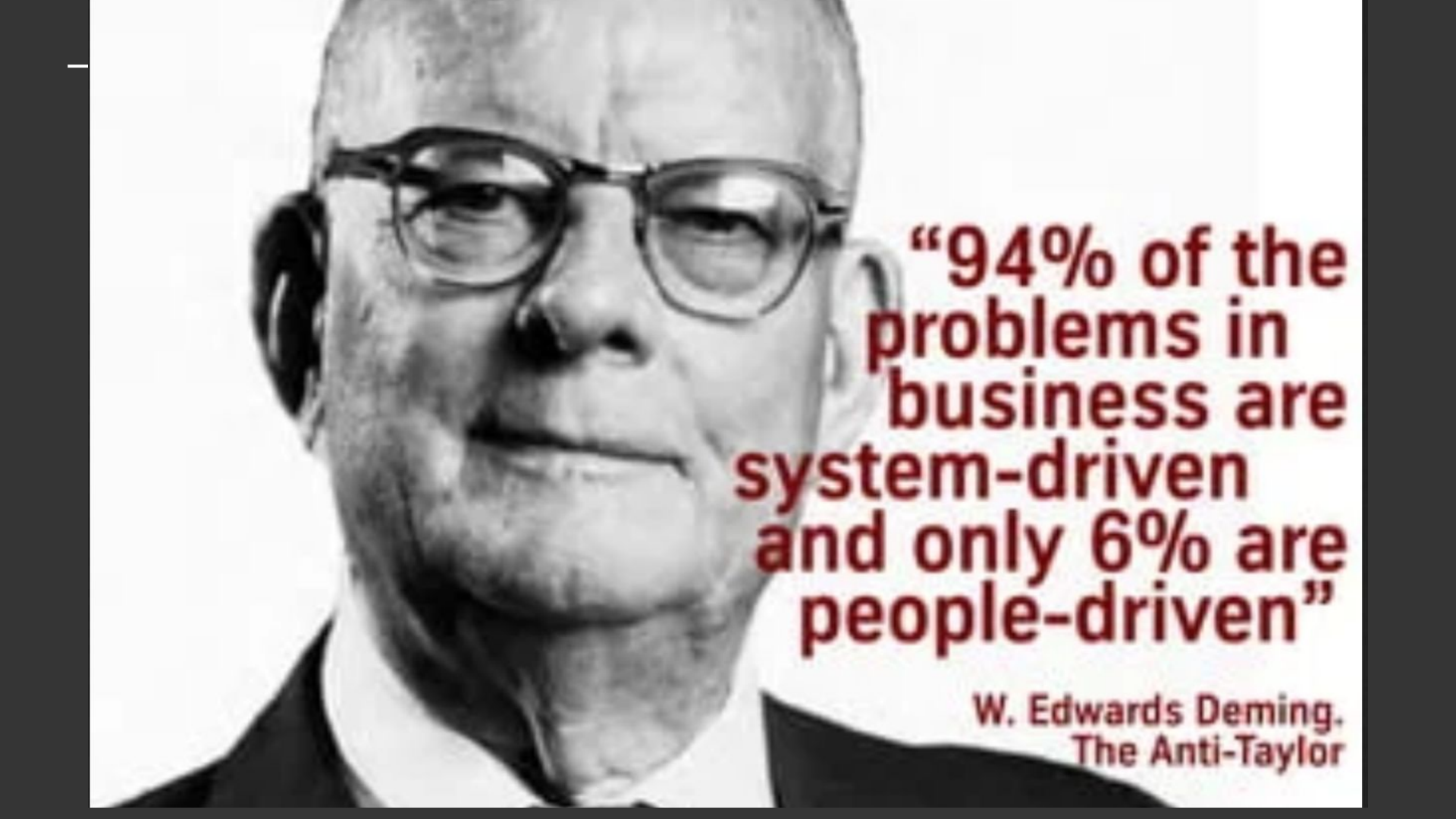


What can go wrong
will go wrong—unless
you identify potential
problems earlier.

Why Practice Adaptive Project Management?

Tip



A black and white portrait of W. Edwards Deming, an older man with glasses, wearing a suit and tie. The portrait is the background for the text.

**“94% of the
problems in
business are
system-driven
and only 6% are
people-driven”**

W. Edwards Deming,
The Anti-Taylor



There are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns - the ones we don't know we don't know.

— *Donald Rumsfeld* —

AZ QUOTES

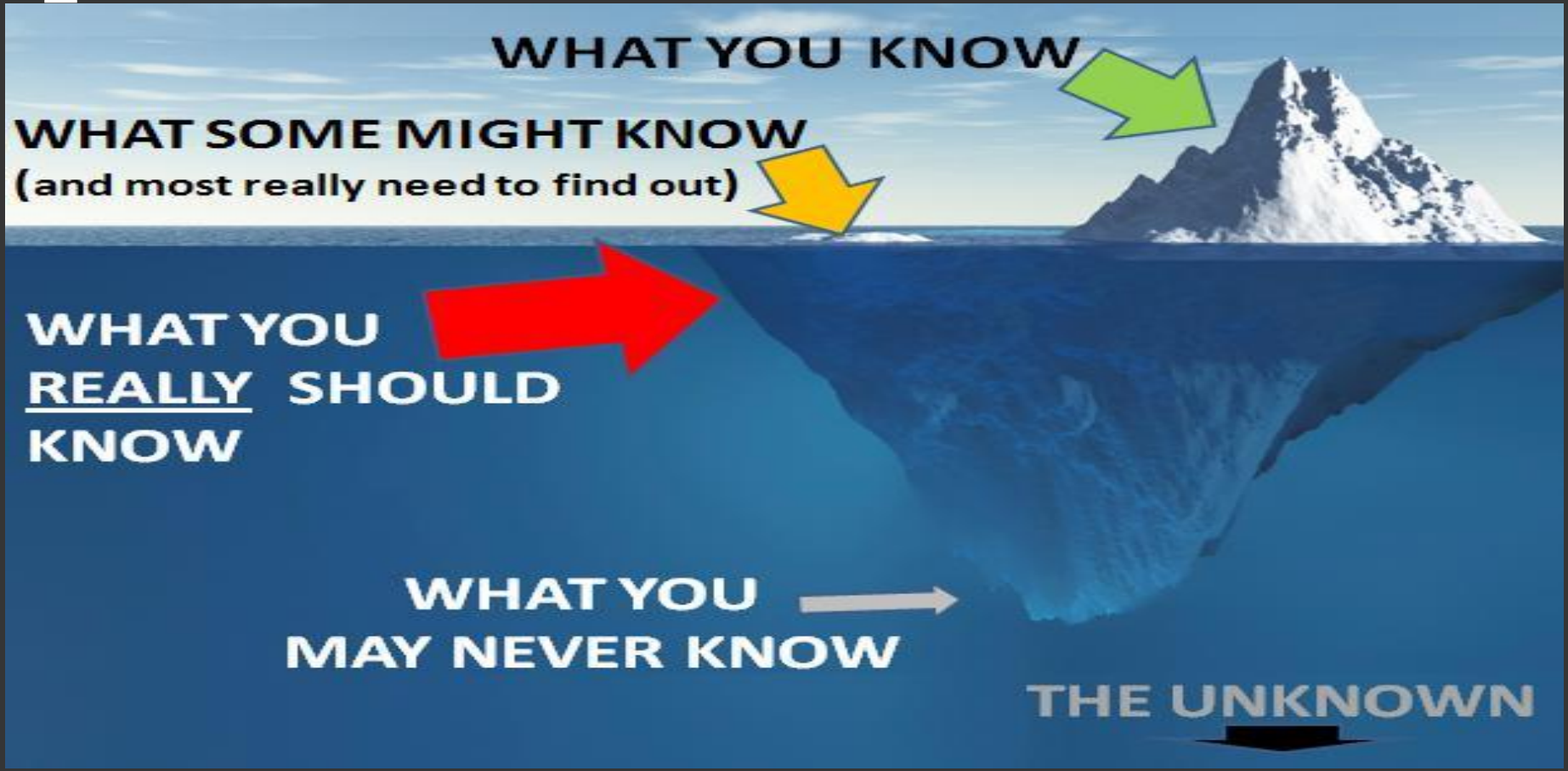
WHAT YOU KNOW

WHAT SOME MIGHT KNOW
(and most really need to find out)

**WHAT YOU
REALLY SHOULD
KNOW**

**WHAT YOU
MAY NEVER KNOW**

THE UNKNOWN



- 1) Adaptability is needed to Survive
- 2) Survival is Uncertain
- 3) Uncertainty is a Knowledge Issue
- 4) We can cover a lot by way of Knowledge Navigation
- 5) Knowledge Navigation can be Planned
- 6) Leverage the planned knowledge
- 7) Be adept at Quick Decision Making
- 8) Gather Information on Failure Modes in advance
- 9) Adaptive Project Management is not about Iron Triangle
- 10) Luck favors the Prepared

Examples

- (now) SV Bank Failures
- (recent) Boeing 737 MAX
- (2010) BP Oil Spill
- (2009) WMATA Collision
- (1986) Chernobyl Disaster

Normal Accidents



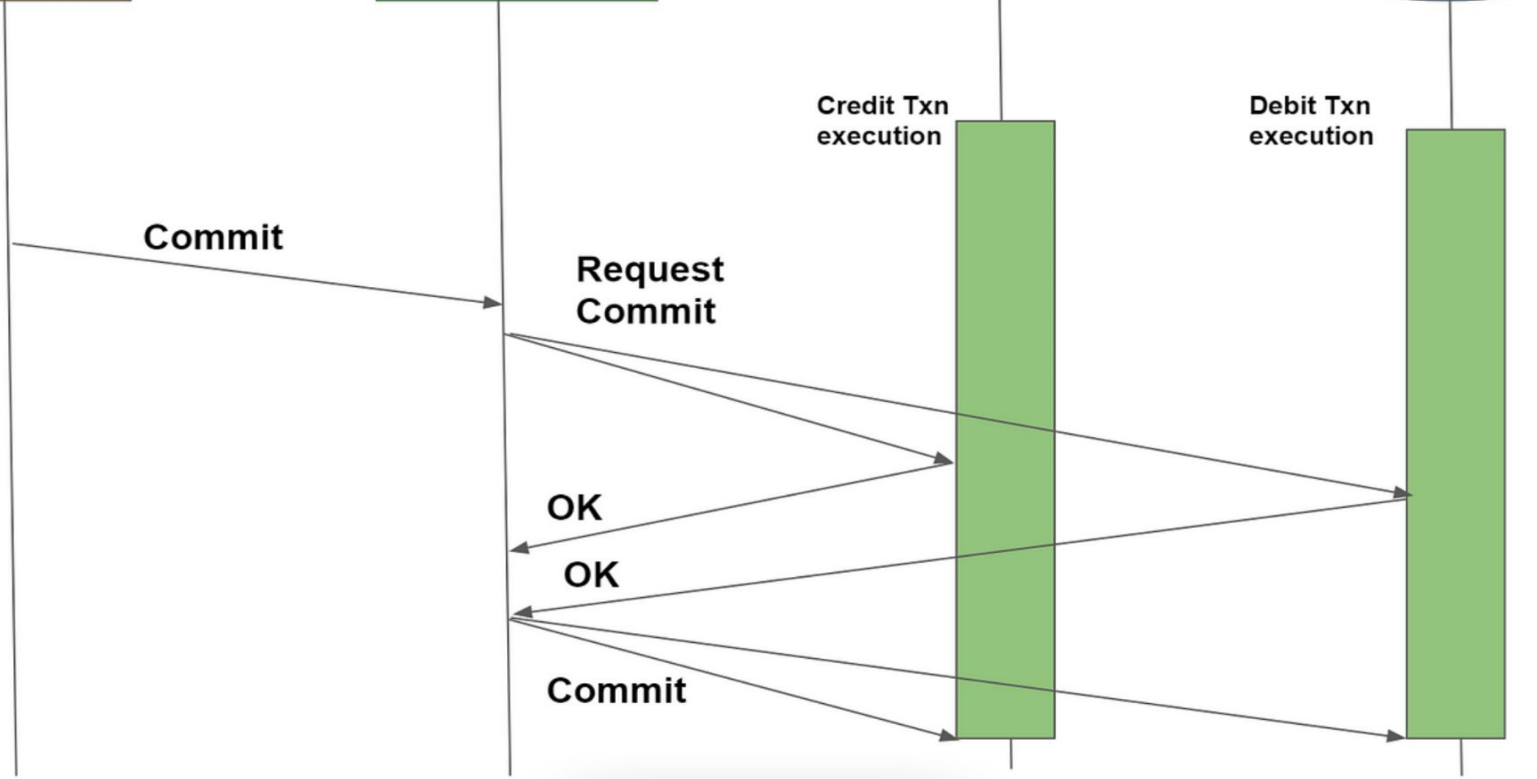
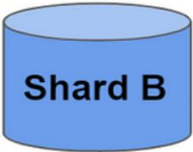
Living with High-Risk Technologies

In 2004 A High Scale Payment Company Wanted To Horizontally Scale Out The Transactions Database.

This introduces Two Phase Commit (2PC) Protocol (next slide)

One giant database partitioned into many small databases (shards)







2PC Is Slow!

After The Release Payment Volume Plummeted!

We Understood That The Release Was A Failure. We Needed To Rollback!

Rollback To Unshaded Database.

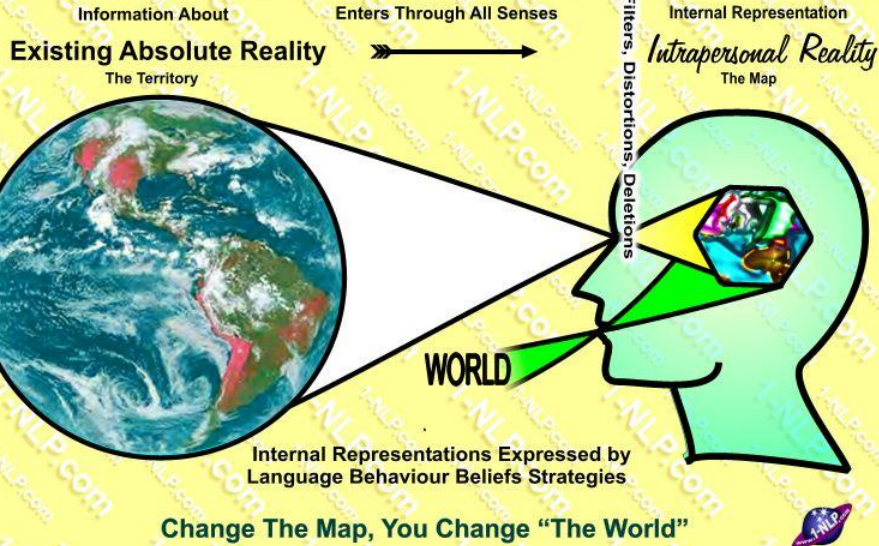


Rollback Was Messy!

- The Rollback Took 33+ Hours!
- This Is Project management Under Chaos.
- Millions Lost And Reputation Lost As Well.

The Map Is Not The Territory

"But some maps are more likely to get you from A - Z than others ..."



Map Territory Language

- We did not expect high error %
- Payment Platform users are noisy
- Load & Performance Stage a Map

Why Practice Adaptive Project Management?

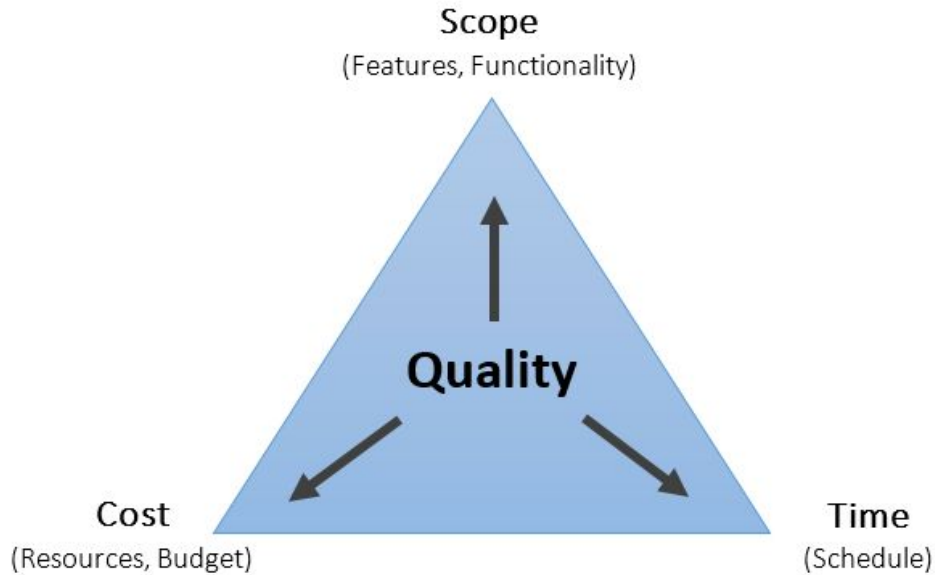




To Survive!

1. Contain Chaos
2. Degraded Mode
3. New Normal

—

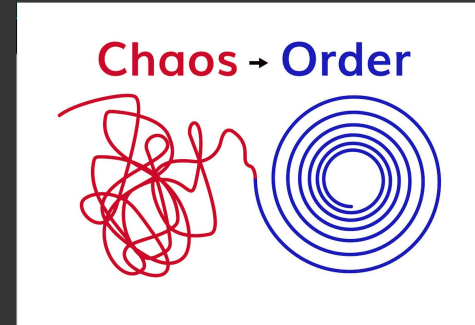


Not Iron Triangle

1. Adapt to Survive
2. Adapt to Normalcy
3. Adapt to Resilience

Contain Chaos

Disasters do not just appear one day — they exist throughout time and have a life cycle of occurrence. This cycle is matched by a series of management phases: establish strategies to mitigate hazards; prepare for and respond to emergencies; and recover from effects.



Knowns

Known Knowns

Things we are aware of and understand.

Known Unknowns

Things we are aware of but don't understand.

Unknowns

Unknown Knowns

Things we understand but are not aware of.

Unknown Unknowns

Things we are neither aware of nor understand.

Knowns

Unknowns

—

Premortem

Pretend it's the future and you're looking back on a failed project. Consider why it failed and make adjustments in the present.



Product launch day



Postmortem

After a project is over, discuss what went well and what didn't go well.



Reduce Unknown - Unknown

- It is OK to have Known Unknowns
- Premortem
- Analyze past Postmortems

Step 1: Prepare

Step 2: Imagine a fiasco

Step 3: Generate reasons for failure
2 minutes to write these

Step 4: Consolidate the lists: Triple Filter
Method —Impact, Reversibility,
Likelihood

Step 5: "What can I do to reduce the
chance of the fiasco?"

Step 6: Revisit the plan

Step 7: Periodically review the list



Gary Klein : Premortem

- Identify Trouble Spots
- Reduce Overconfidence
- Improve Mental Model
- Increase Trust

MELTDOWN

Why Our Systems Fail and
What We Can Do About It



Systems Thinking Culture

- Lead in Systems Thinking
- Plead System Ownership
- Avoid Bureaucracy

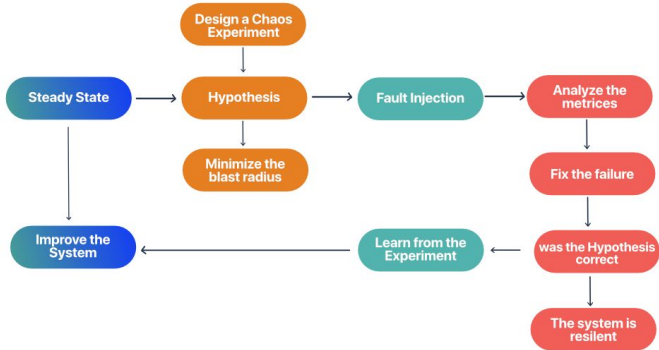
Common Bank Stress Scenario Variables



Stress Test

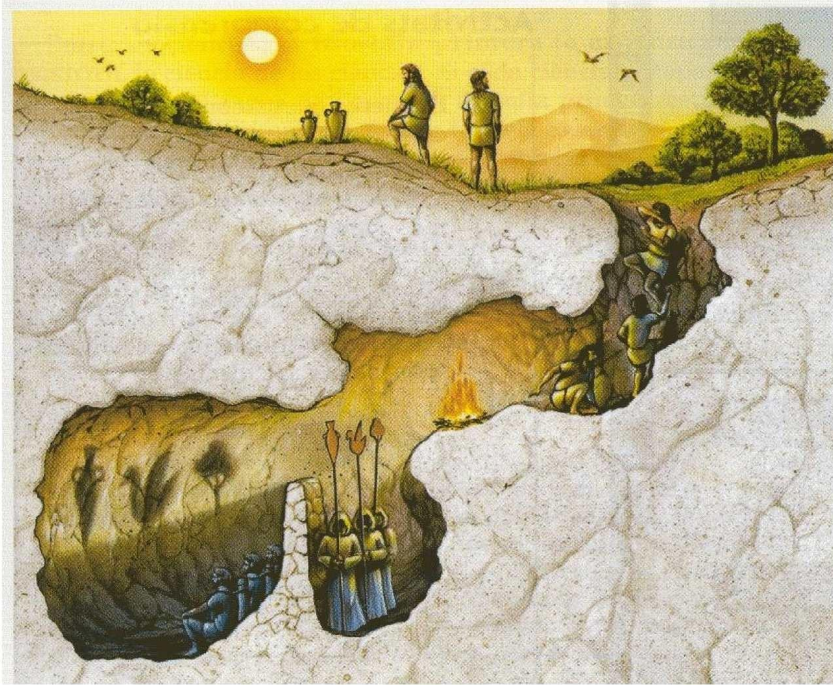
- Silicon Valley Bank
- Can be Simulation or Real
- Note what is not covered

How Chaos Engineering Works?



Chaos Test : Resiliency

- Failure is Leverage!
- Quality of Service (QoS)
- GameDay



Bureaucracy : Plato's Cave

- To access Great Unknown
- Be suspicious of Structure
- Be suspicious of Culture
- Bureaucracy = Structure X Culture



Diversity of Input

- What some might know
- What you really should know
- Diversity is your Friend
- Broadbased Tapping (into Knowledge)

UNCERTAINTY, CHAOS, AND LUCK—
WHY SOME THRIVE DESPITE THEM ALL

GREAT BY CHOICE

Jim Collins

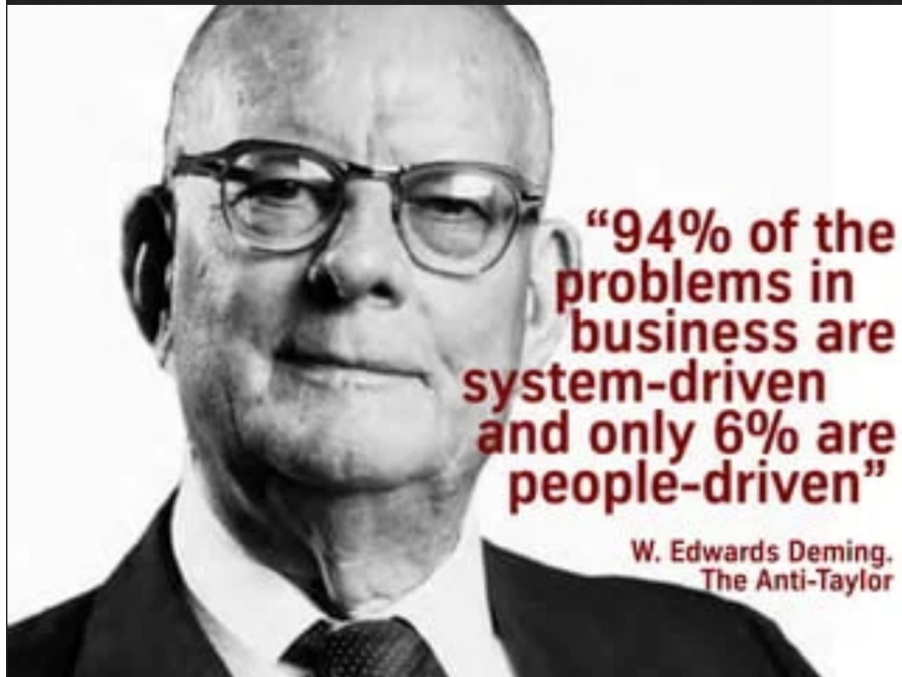
AUTHOR OF *GOOD TO GREAT*

A MILLION COPIES SOLD

Morten T. Hansen

Great By Choice!

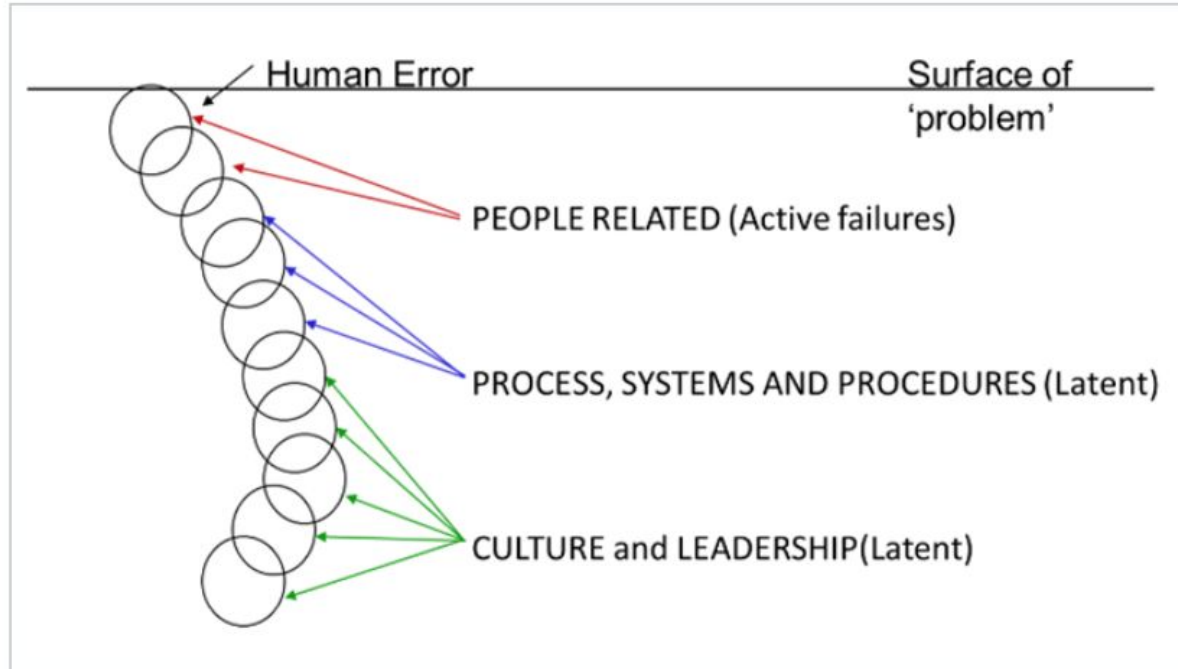
- 10X Companies!
- We cannot predict the future
- But we can create it
- Amgen, Biomet, Intel, Microsoft, Progressive Insurance, Southwest Airlines and Stryker.



System Not People!

- Premortem vs Postmortem
- Stress Tests vs Stress
- Chaos Engineering vs Chaos
- It's Your Choice!

THE ERROR CHAIN





Crust To Core

I hope you'll use these tips to make more effective decisions under stress of Chaos.

For more about Project Management under Chaos check out Gary Klein book!

