

Signals & Levers

Joel Tosi



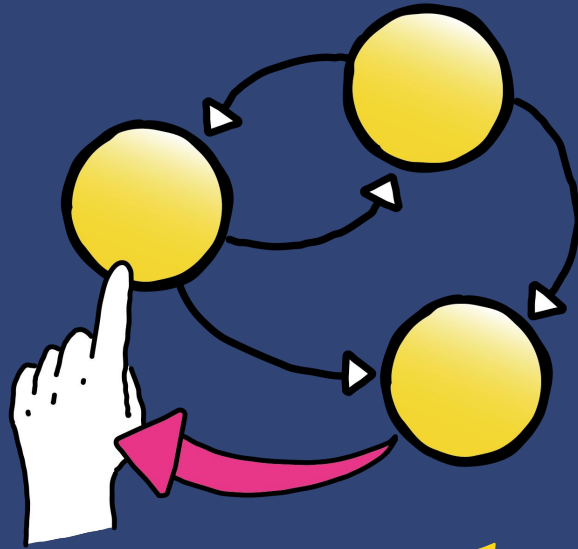
Elisabeth
Hendrickson

“We did that _____
change. It was easy
and went exactly as
planned.”

No One. Ever.

what
happened?

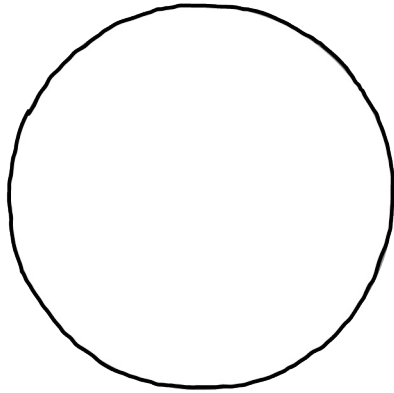
Software Delivery is an Adaptive Sociotechnical System



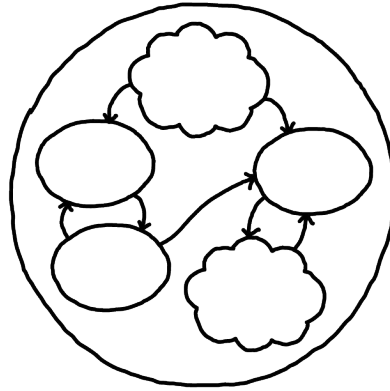
the system pokes back

About Systems...

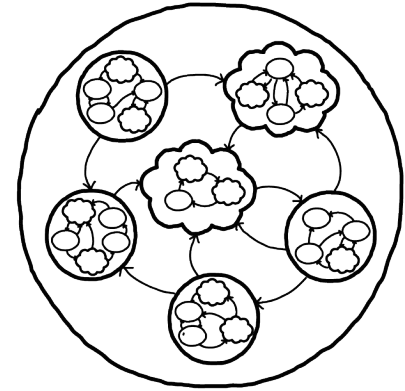
A **system** is a set of interrelated parts that does something. It has these properties:



the whole is
indivisible



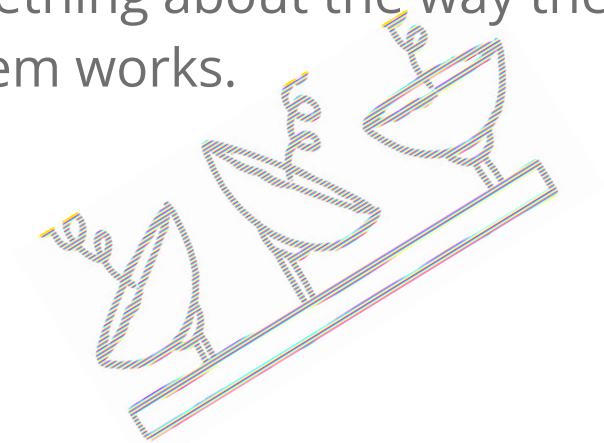
parts are
interdependent



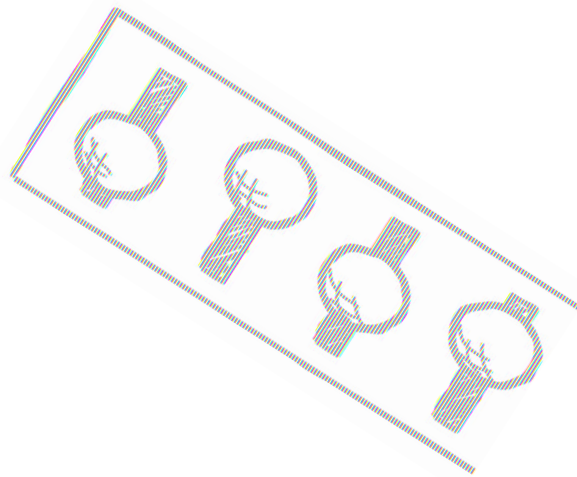
systems are
fractal

Signals & Levers

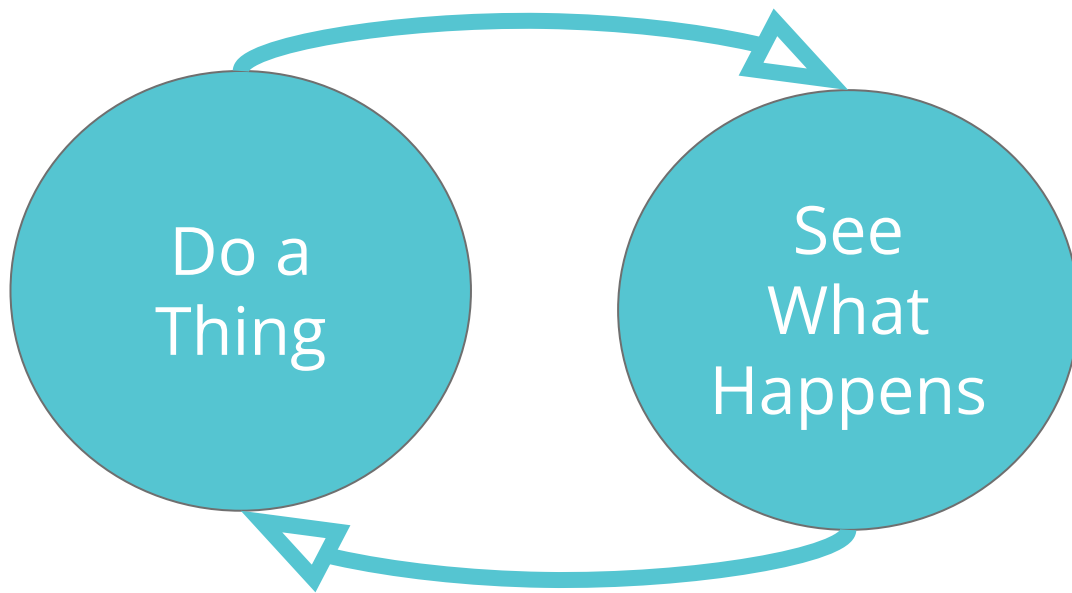
Signals are observable characteristics or attributes of the system that tell you something about the way the system works.



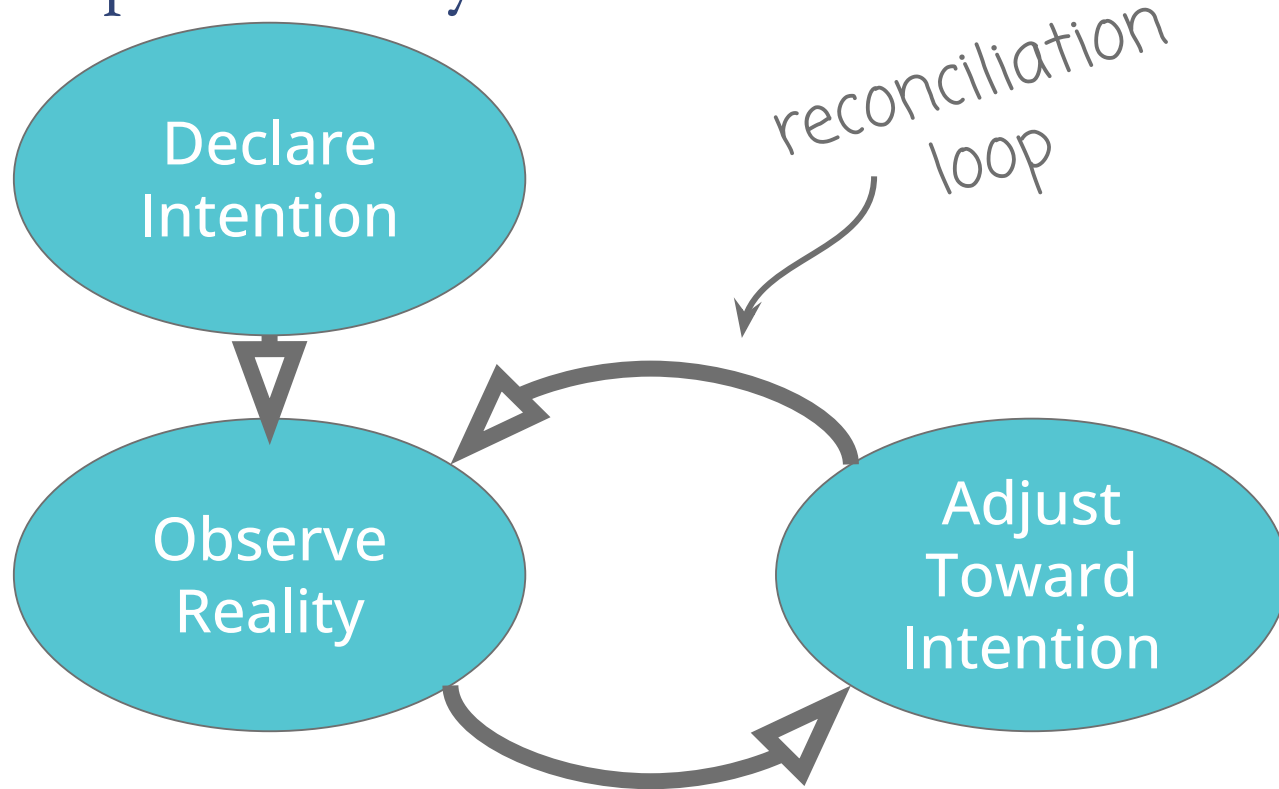
Levers are choices or decisions you can make to cause a shift in the system.



Feedback is
information
you get by
observing a
response to an
action

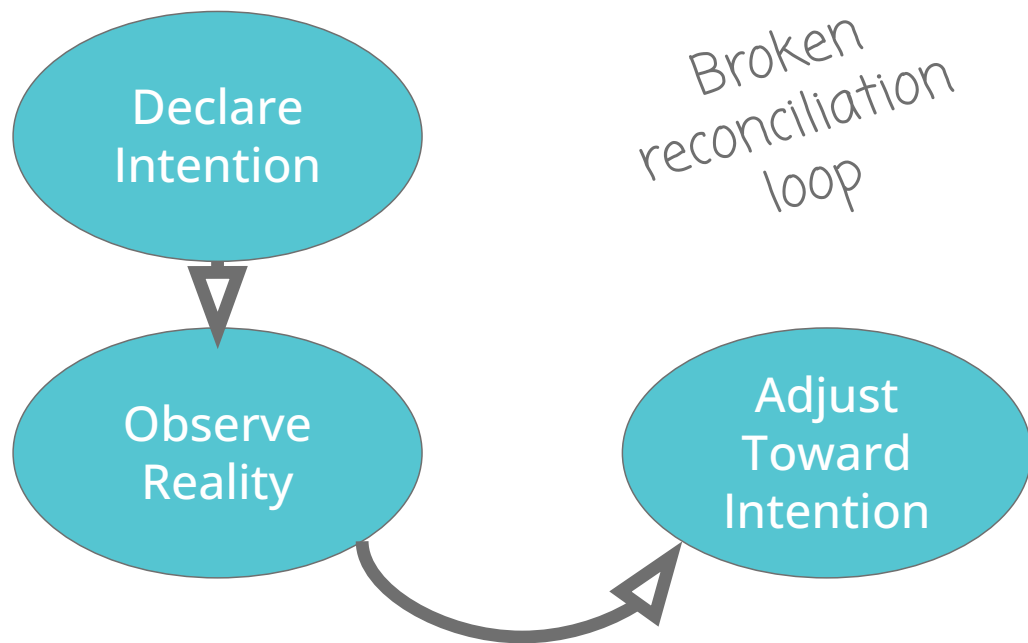


Closed Loop Control Systems



Open Loop

Your software delivery system is probably running open loop, and **you don't know it**. You *THINK* there's a feedback loop in place. **But it's only closed loop if the feedback steers the system.**

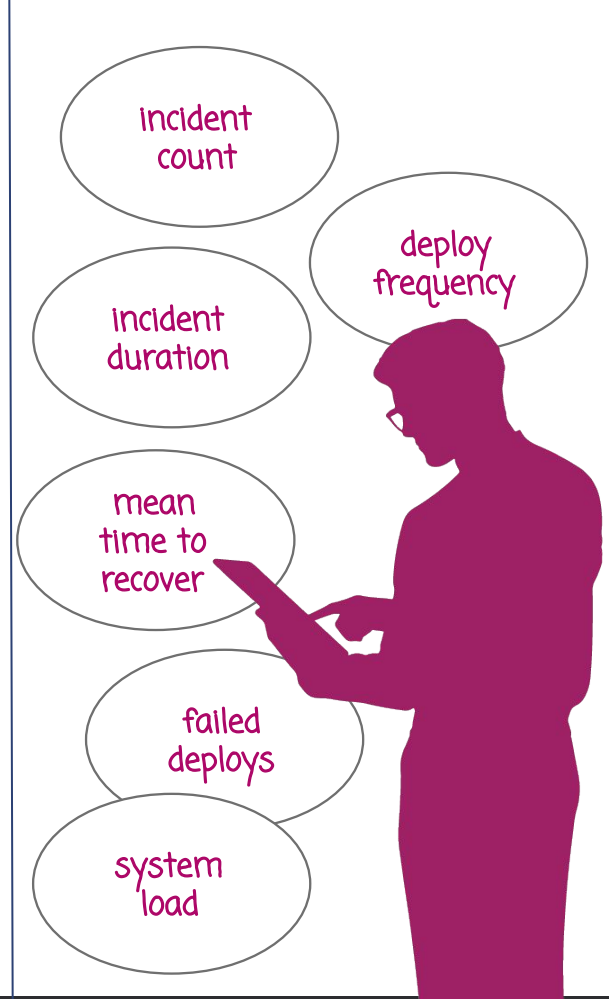
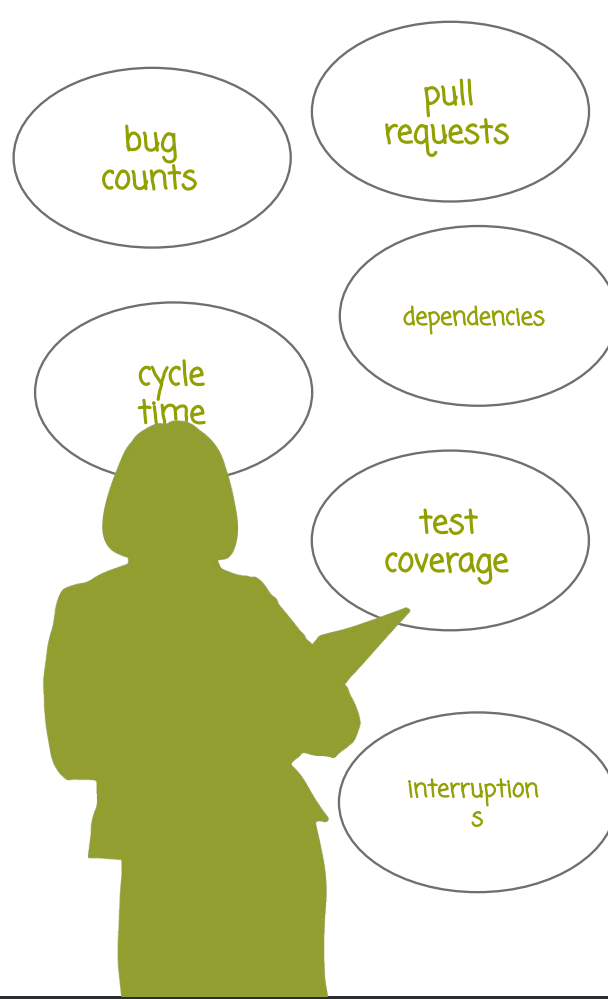


Software delivery is
changing rapidly

Small changes can
lead to better
outcomes

understand
your context

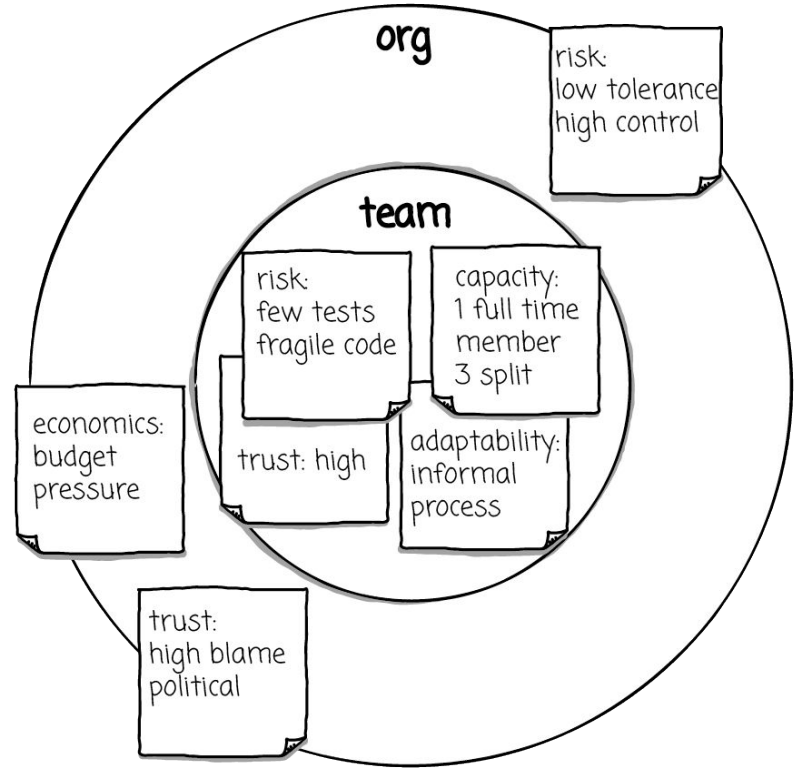




Understand Context in Concrete Terms

Dimensions of context:

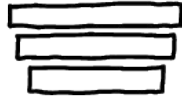
- Capacity
- Risk
- Execution
- Adaptability
- Trust
- Economics



investment in
automation



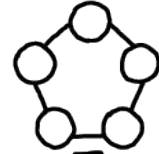
relentless
prioritization



fast
feedback



team
autonomy



Why are you only
pulling those levers?

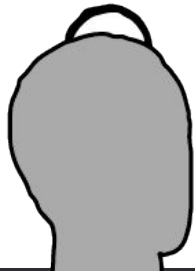
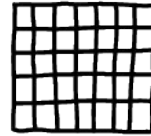
applaud

pressure

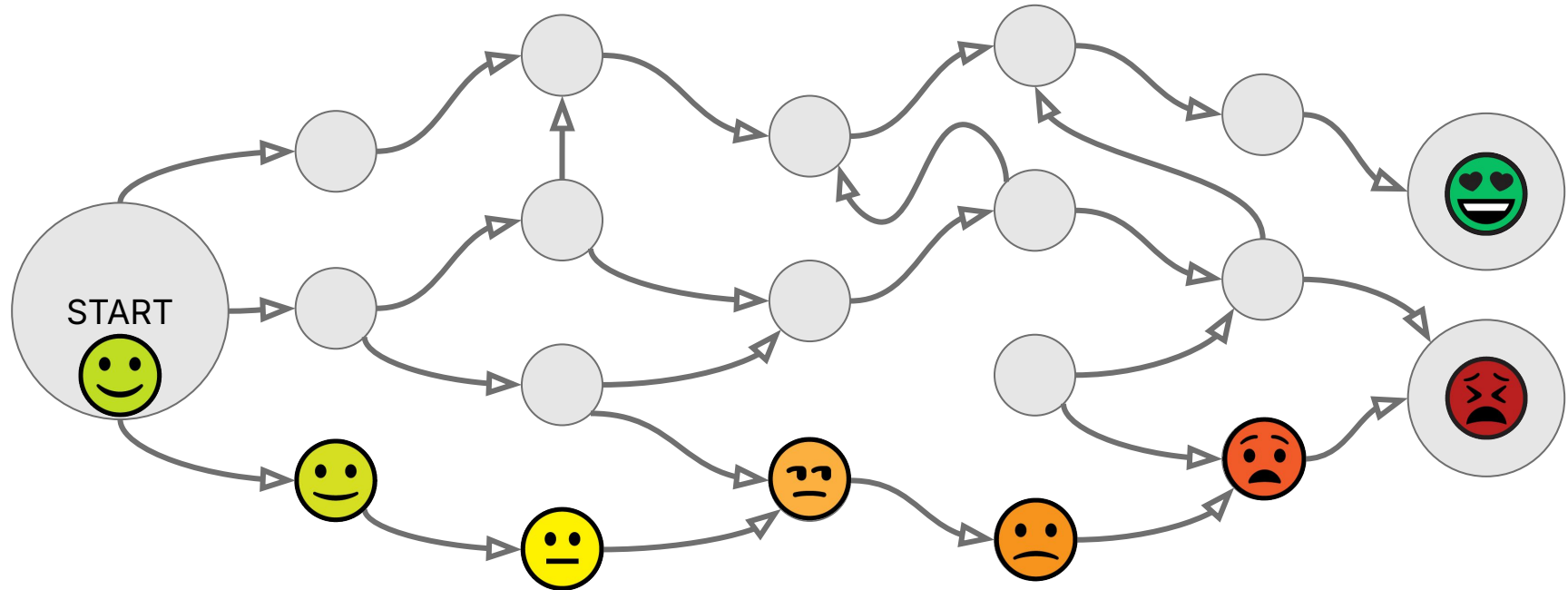
They're easiest to reach.

deadlines

meetings



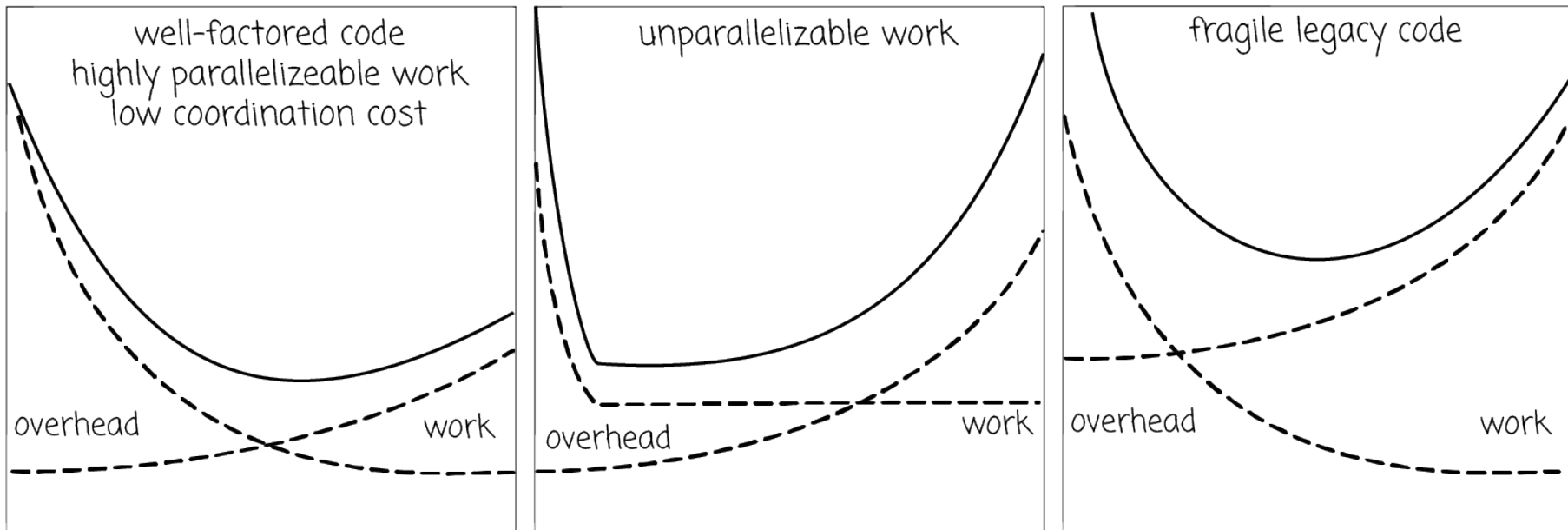
Think of your context like a board game...



...past choices determine current options.

Your Problems Are Not Unique, Your Context Is

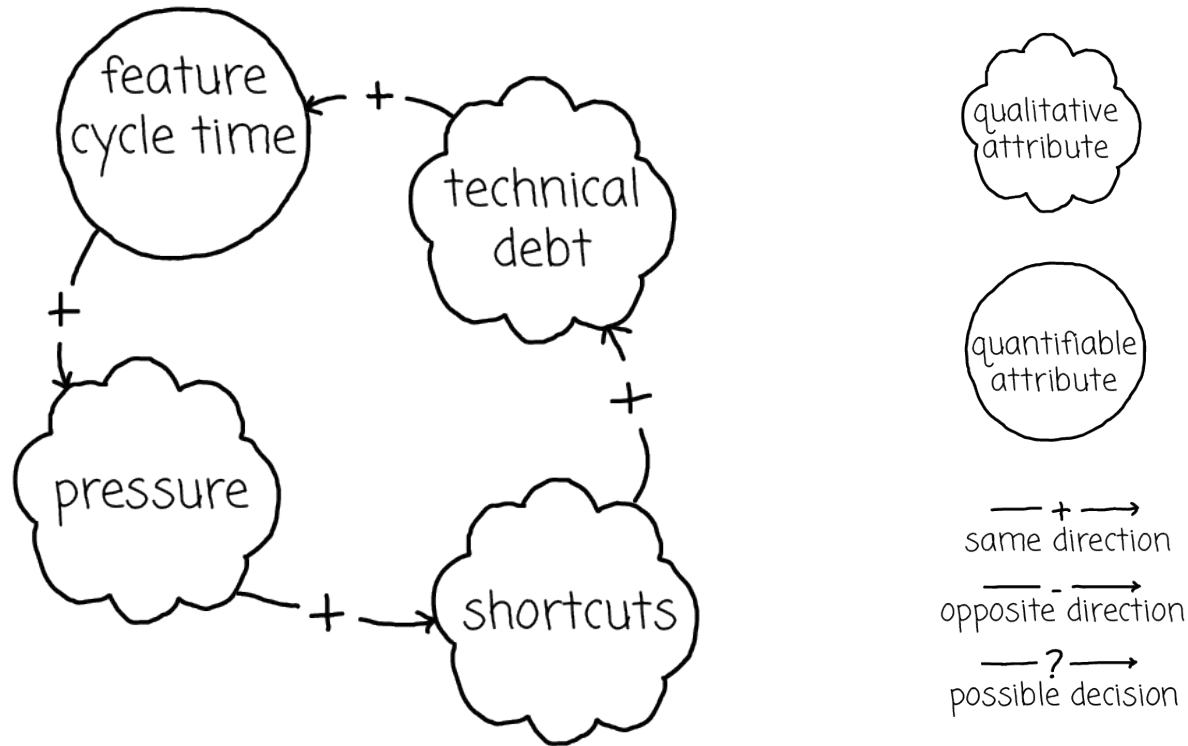
Variations on the Mythical Man Month curve depending on context:

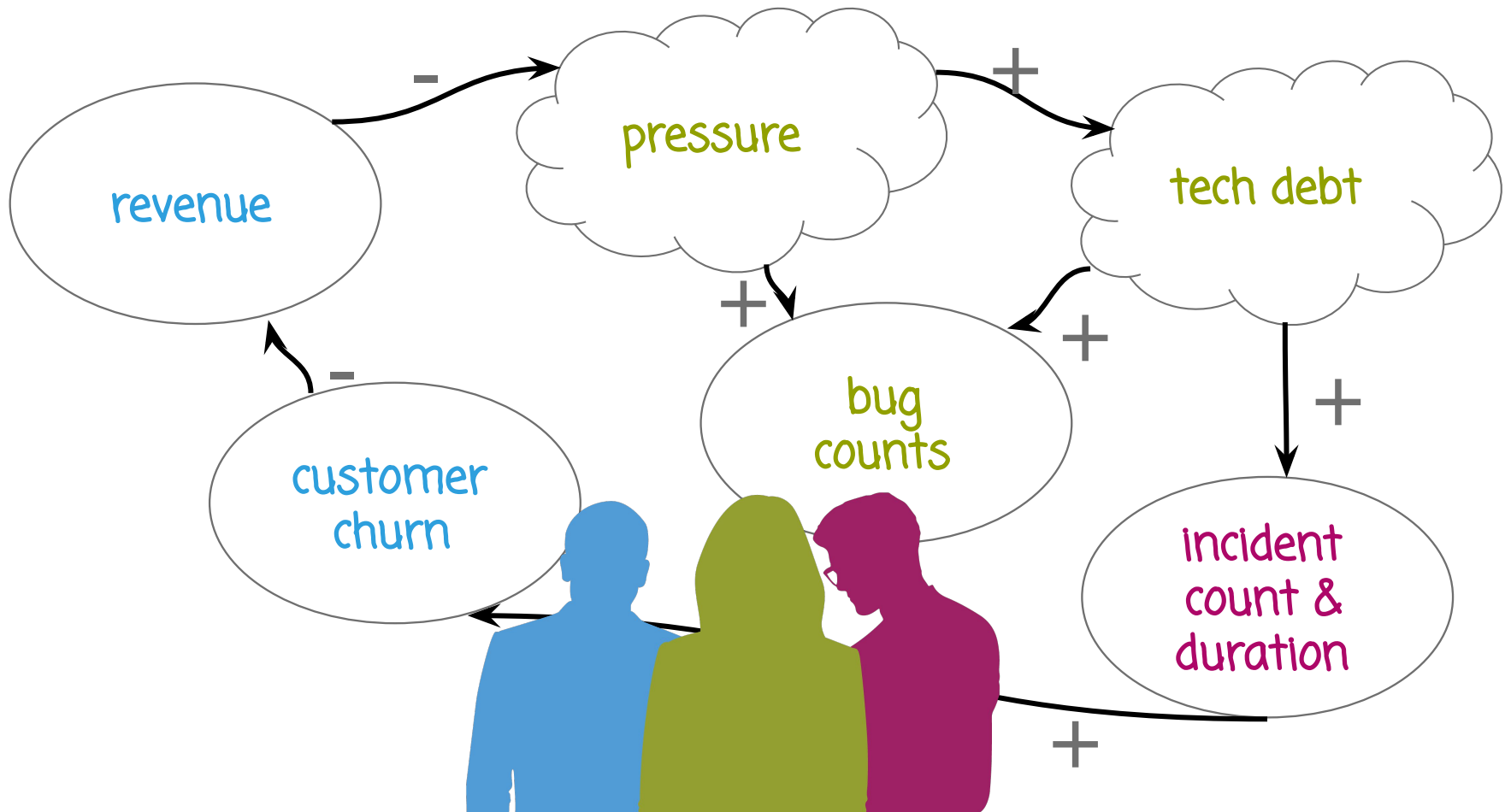


see influences

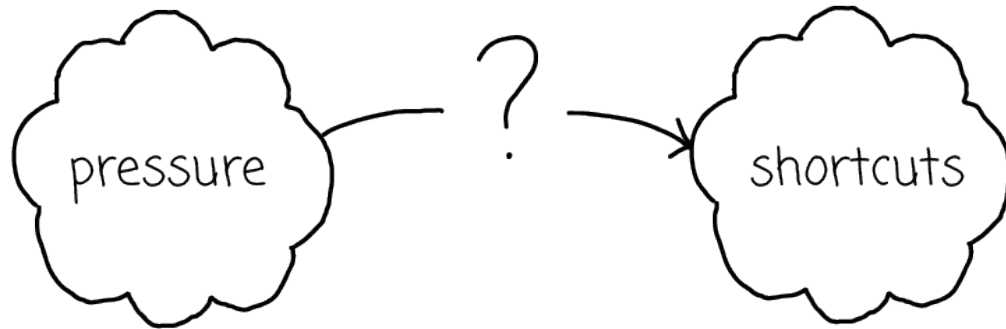
find levers

Seeing Systemic Influences with Causal Models

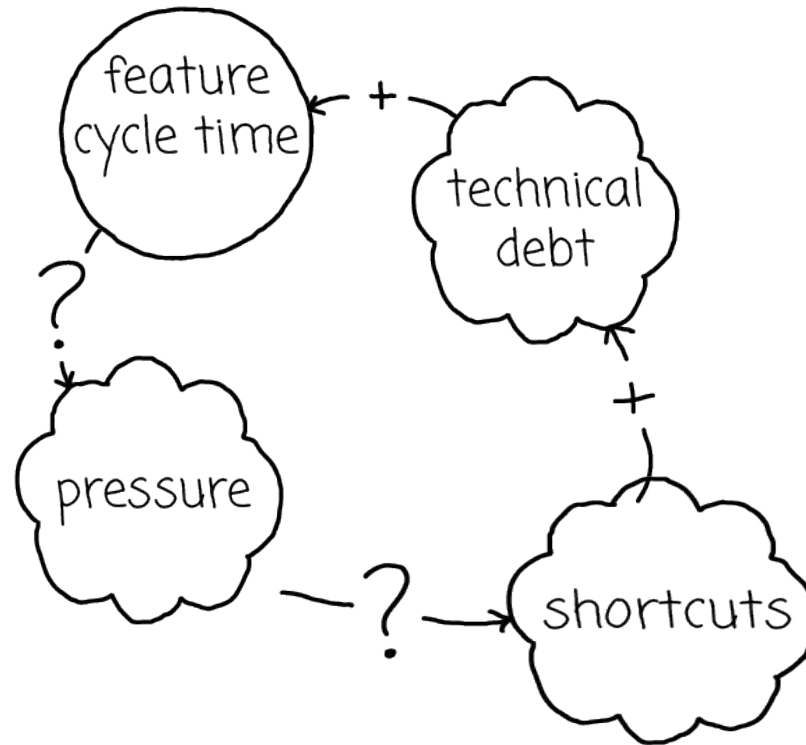




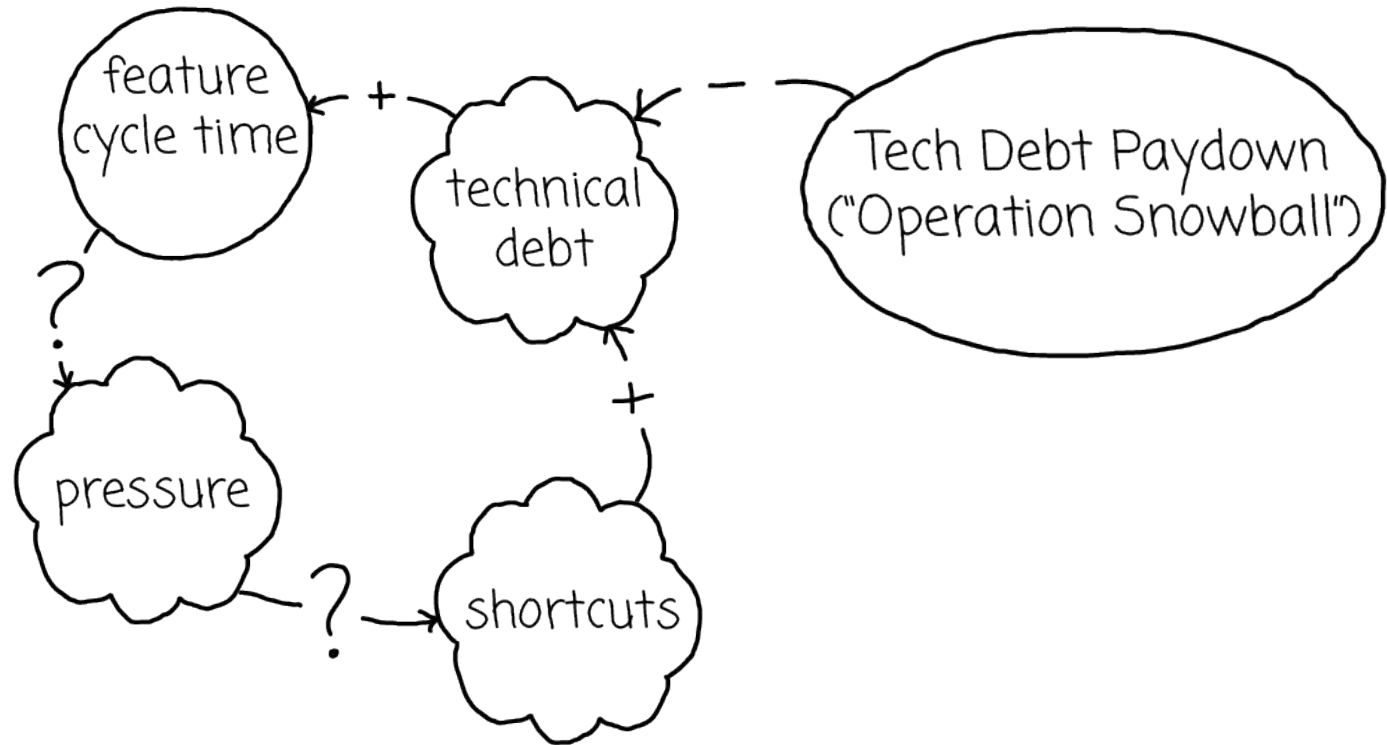
Lever 1: Identify Where You Have a Choice...

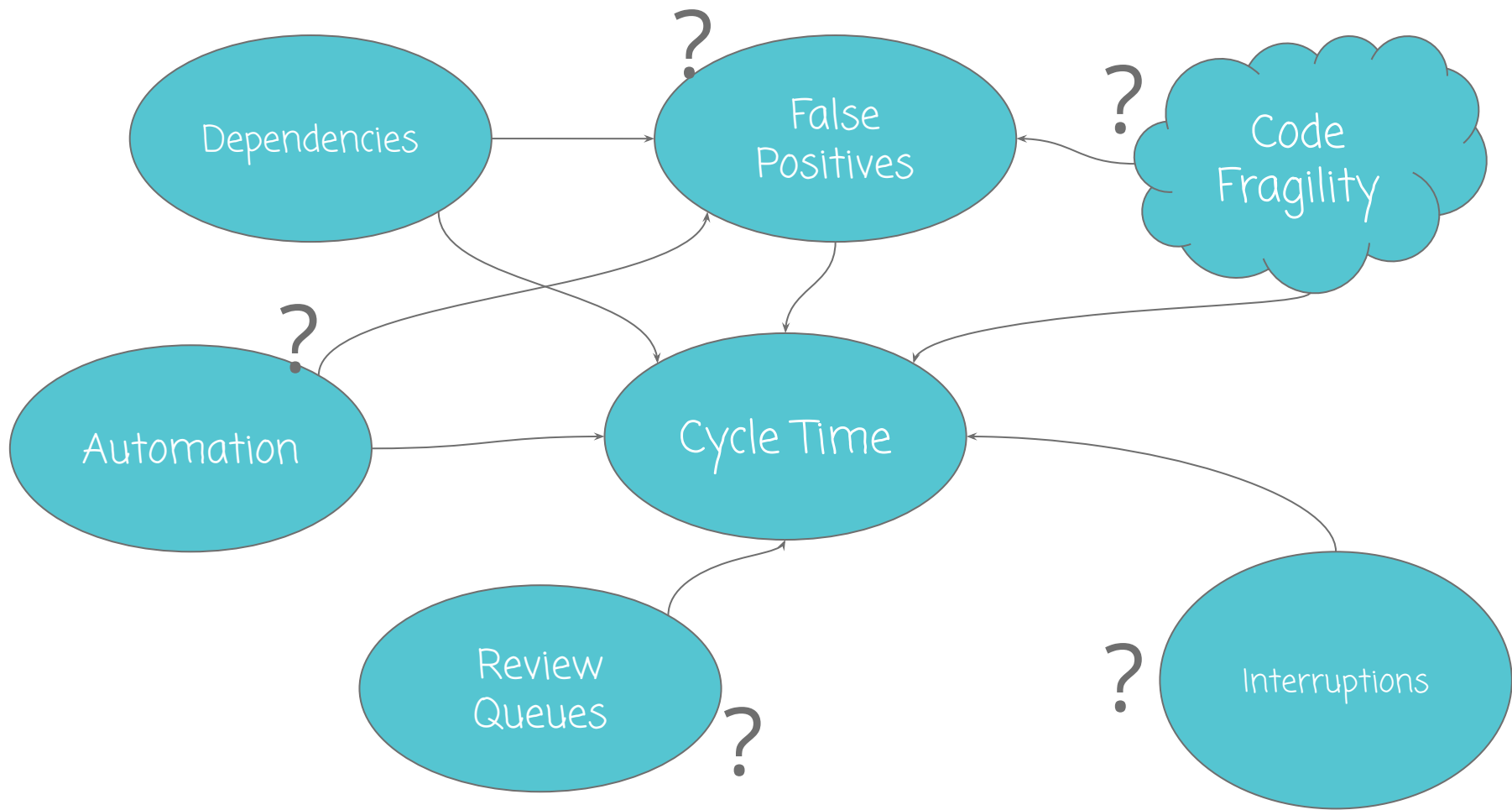


...Then Make Different Choices

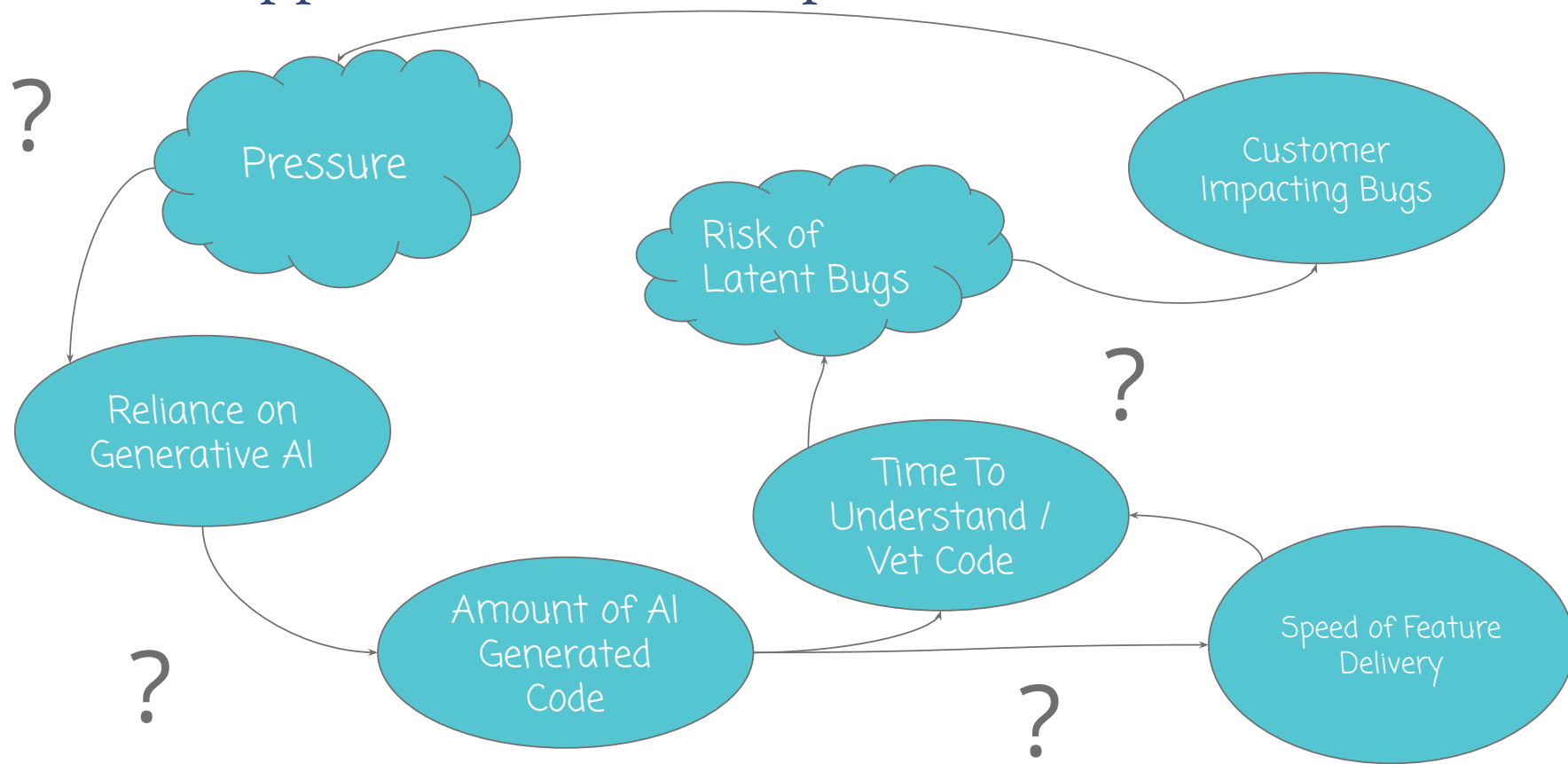


Lever 2: Add a Counterbalancing Influence



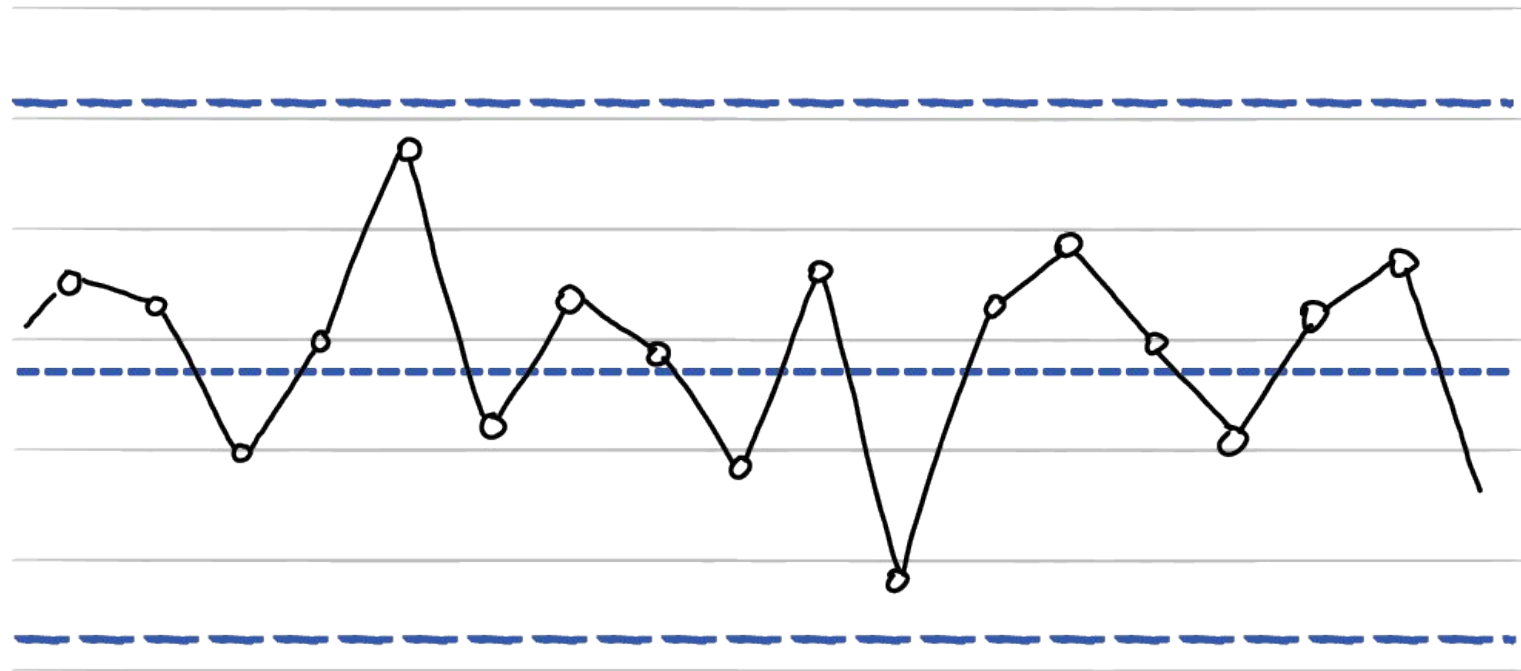


What Happens When You Ship Faster Than You Learn?



decide for
yourself

Overreacting





Flying Buttresses

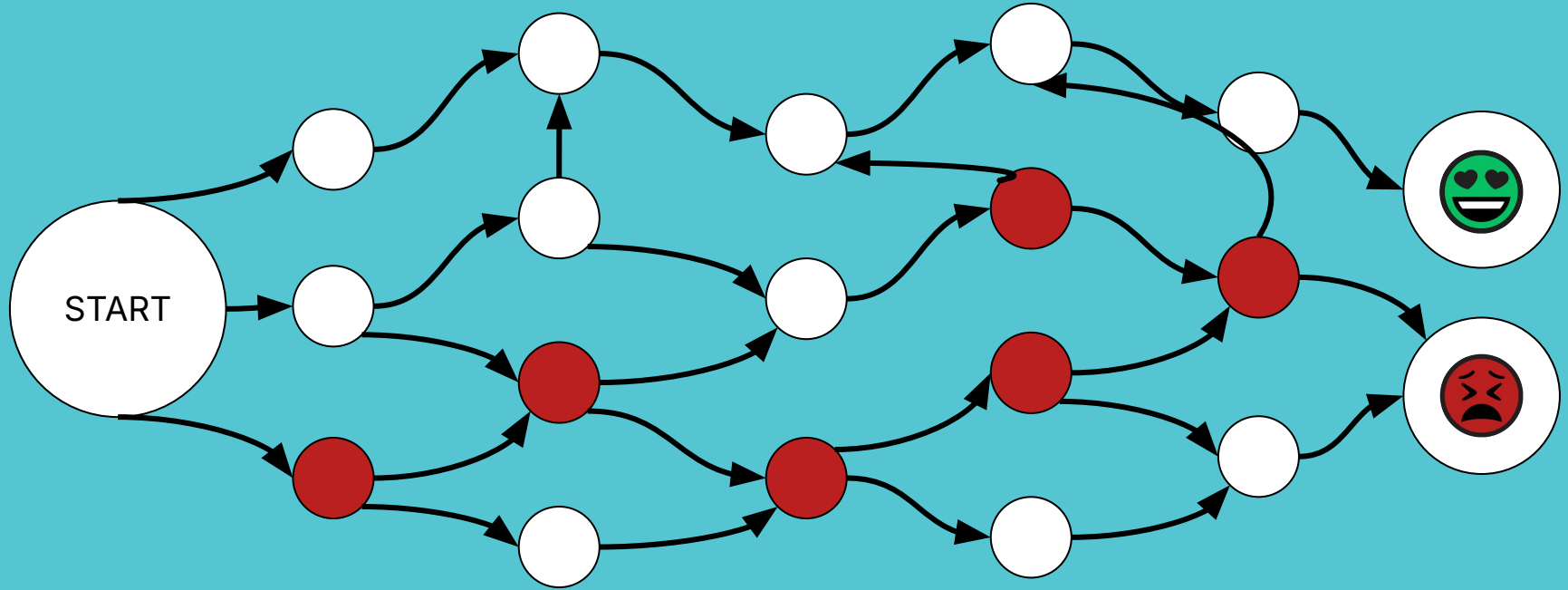
land the
plane

your context is
constantly changing

Right +  = Wrong

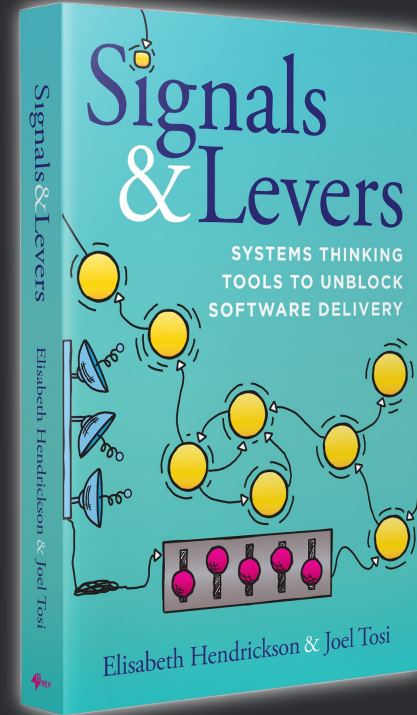
Wrong +  = Right

Act Where Pain is Caused
Not Where It Is Observed



your challenge

Thank you!



slides + resources - <https://signalsandlevers.com/TechFuseDSM>