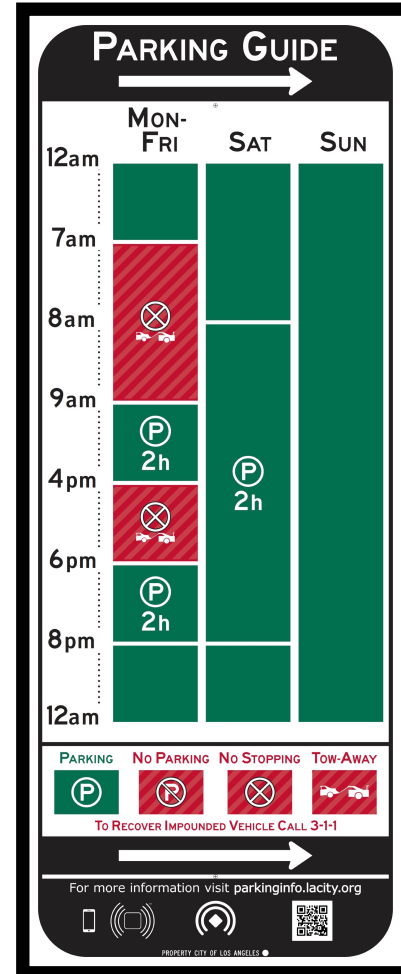


Simplicity as a superpower

Navigating the complexity maze in software development







What we will discuss today

Our world around us is complex.

Lets not make it complicated.

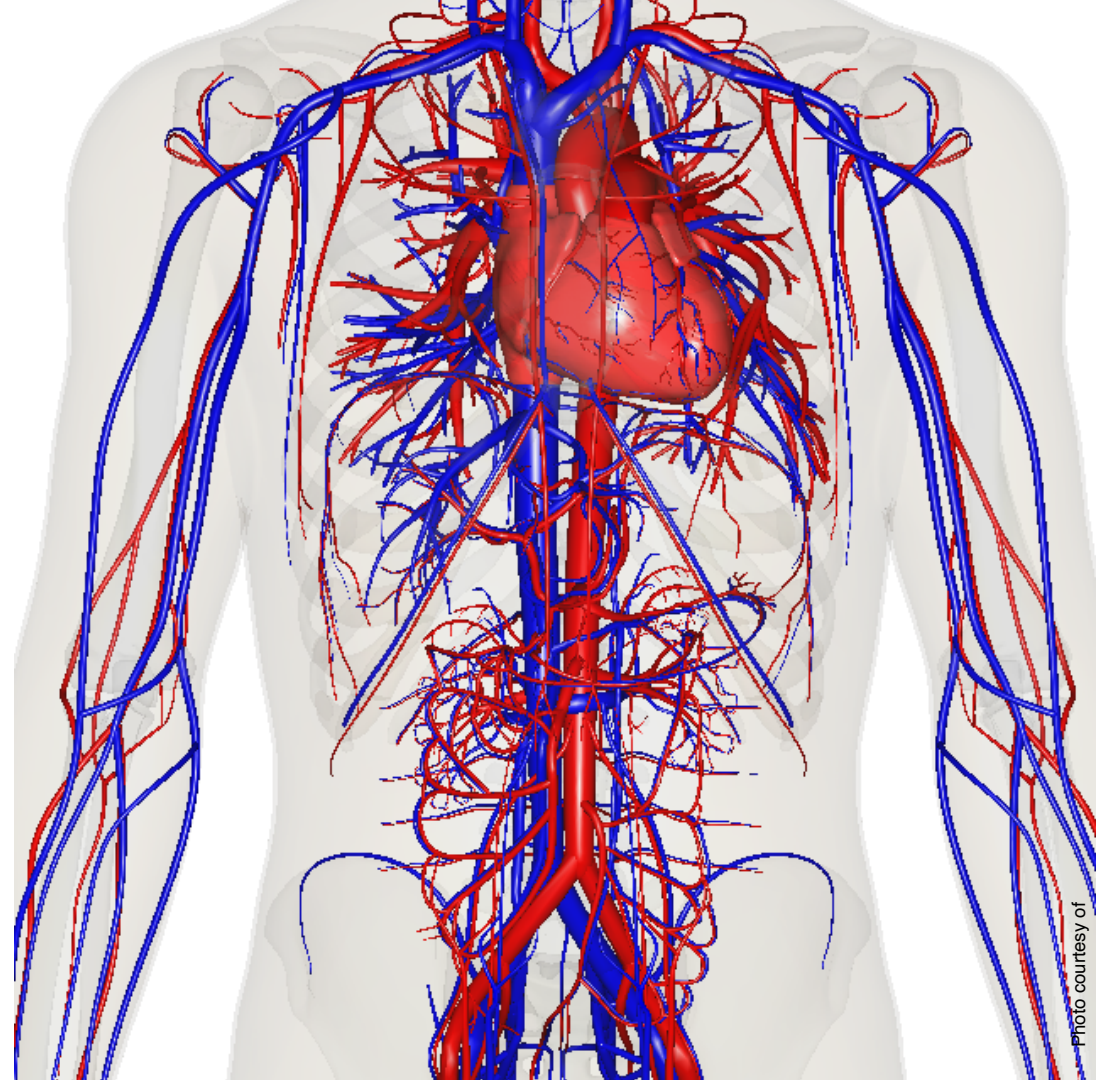
1. Dealing with complexity in the real world
2. Consequences of not simplifying
3. How did we get here?
4. The ways it creeps into our world, and what we can do about it



Part 1

Dealing with complexity in the real world





D
Danger

R
Response

S
Send for help

A
Airway

B
Breathing

C
CPR

D
Defibrillation



DRSABCD Action Plan

SEE MORE

A white silhouette of a person's head and torso against a black background. The person's right arm is raised high, with the hand open and fingers spread. The silhouette is positioned on the right side of the frame, partially overlapping the text.

BE PREPARED TO
SAVE A LIFE
LEARN HANDS-ONLY CPR

Part 2

Consequences of not simplifying







Certainly, here are a few real-world case studies that illustrate the consequences of not simplifying processes, systems, or communication:



1. **NASA's Mars Climate Orbiter (1999):**

- **Issue:** NASA's Mars Climate Orbiter mission failed due to a communication error between different teams. One team used metric units, while another used imperial units. This complexity in unit conversion led to a catastrophic loss of the spacecraft.
- **Consequence:** The Mars Climate Orbiter mission, costing over \$327 million, ended in failure. It serves as a stark example of the importance of clear communication and simplification in mission-critical endeavors.

2. **Healthcare.gov (2013):**

- **Issue:** The launch of the Healthcare.gov website, a key component of the Affordable Care Act, was marred by technical issues and complexity. The site was plagued with glitches, making it difficult for users to sign up for healthcare coverage.
- **Consequence:** The complex nature of the website led to a loss of public trust, political controversy, and a delay in the implementation of healthcare reforms.

3. **Volkswagen's Emissions Scandal (2015):**

- **Issue:** Volkswagen designed a complex software system that manipulated emissions data in their diesel cars to meet environmental standards during testing. The system's complexity allowed the deception to go undetected for years.
- **Consequence:** The scandal resulted in significant financial penalties, damage to Volkswagen's reputation, and legal consequences for top executives. It also raised questions about the ethics of complexity in automotive engineering.

4. **Enron's Financial Scandal (2001):**

- **Issue:** Enron, once one of the largest energy companies in the world, employed complex accounting techniques to hide debt and inflate profits. The intricate web of financial arrangements and off-balance-sheet entities concealed the company's true financial health.
- **Consequence:** The complexity of Enron's financial practices ultimately led to its downfall. Thousands of employees lost their jobs, and shareholders suffered massive financial losses. It resulted in one of the largest corporate bankruptcies in history.

5. **The Boeing 737 MAX Crashes (2018 and 2019):**

- **Issue:** The crashes of two Boeing 737 MAX airplanes were attributed to a complex automated flight control system known as MCAS (Maneuvering Characteristics Augmentation System). The system's complexity, combined with inadequate pil-

 Regenerate

Send a message



Part 3

How did we get
here?



2 6 8



2 6 8

1 3 4



2 6 8

1 3 4

2 5 7

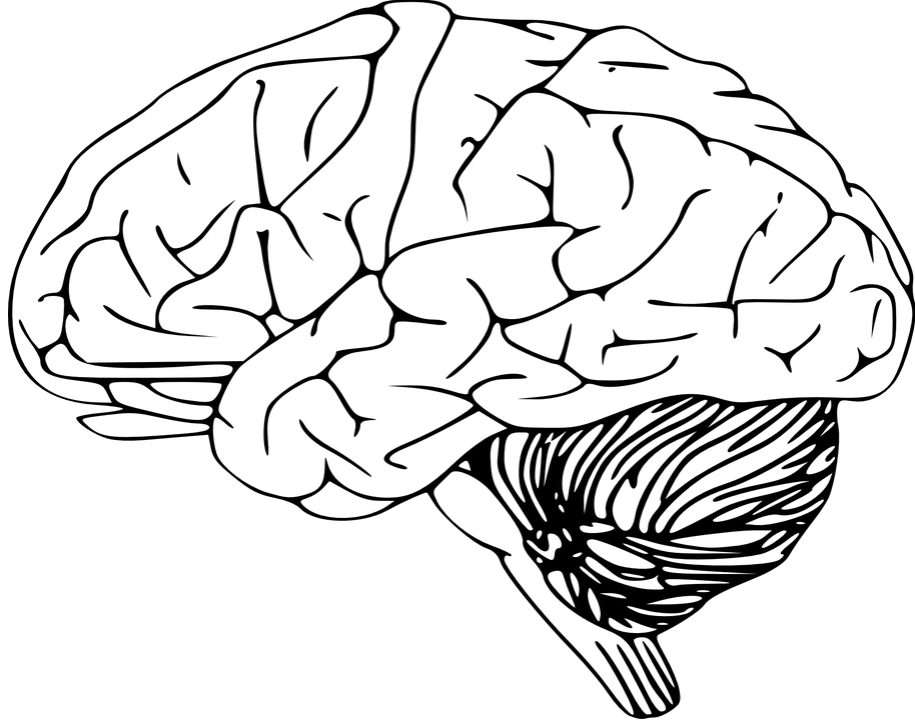


2	6	8
1	3	4
2	5	7
5	8	11



2 6 8
1 3 4
x < **y** < **z**
2 5 7
5 8 11



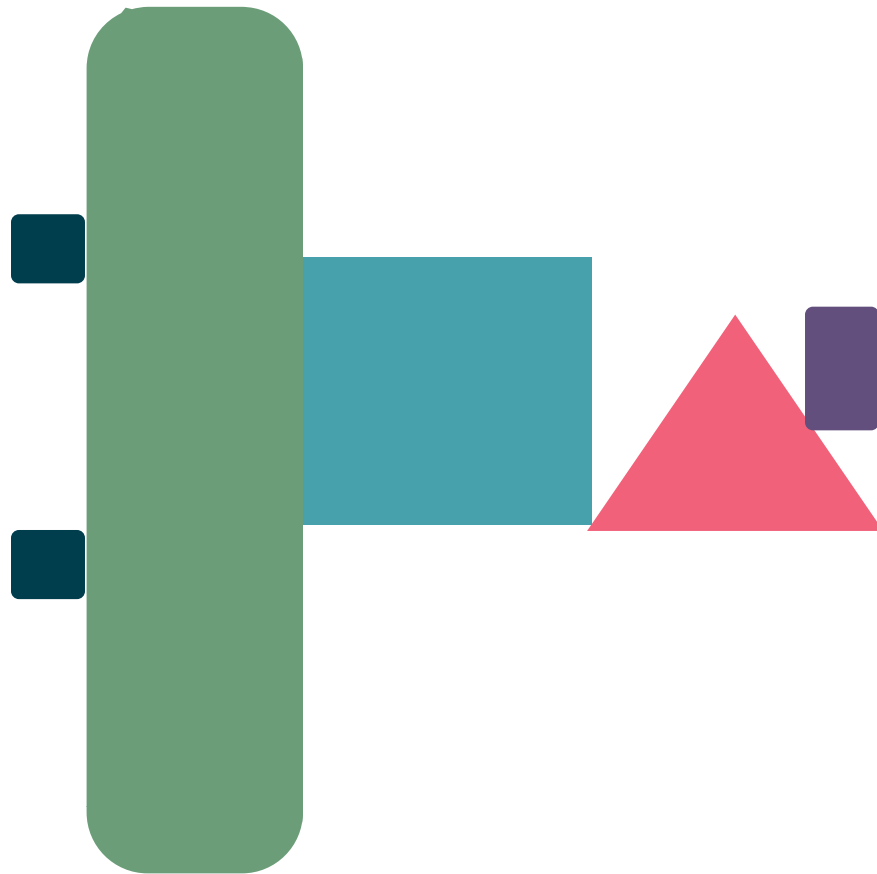


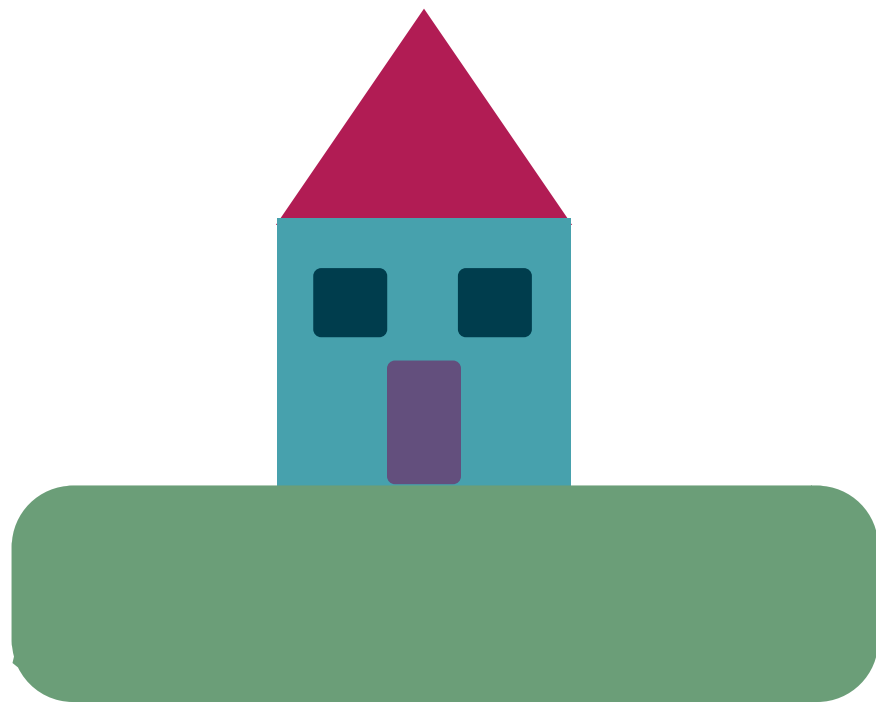


Part 4

The ways it
creeps into our
world, and what
we can do about it









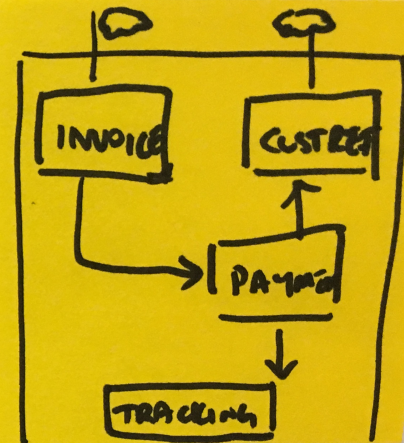
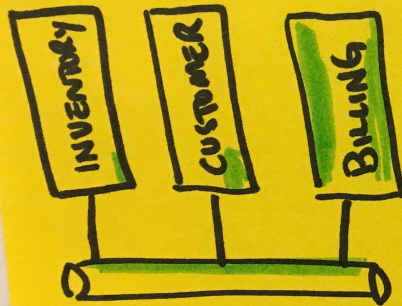




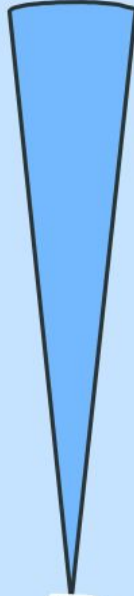




HIGH LEVEL



**CAN SEE WHAT
GENERALIST CAN'T**



**SPECIALISTS
ZOOM-IN**

**CAN SEE WHAT
SPECIALIST CAN'T**



**GENERALISTS
ZOOM-OUT**



Thanks

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