Building a Better Project...with Legos!
Matt House
What does your work look like?
Matt House
Agile Coach
Sketch Development Services

ST. LOUIS, MO

• Education:
  BA - Computer Science
  MS - Management Information Systems
  MBA

• Industries:
  Manufacturing
  Finance
  Healthcare

• Experience:
  Developer
  Project Management Office Lead
  Scrum Master
  Release Train Engineer
  Subpar skateboarder
Defined Process

• Every piece of work is completely understood
• Given a well-defined set of inputs, the same outputs are generated every time
Empirical Process

• Every piece of work is *not* completely understood
• Given a well-defined set of inputs, the same outputs are *not* generated every time
Defined Vs Empirical

**Defined**

- **Start**: All requirements planned
- **Finish**: All requirements complete

**Empirical**

- **Start**: Determine Goals and some priority requirements
- **Finish**: Goals met
The Yada Yada Test

"AND YADA, YADA, YADA..."
Understanding our problem spaces
Cynefin

**Complex**
The relationship between cause and effect can only be perceived in hindsight

probe - sense - respond

**Complicated**
The relationship between cause and effect requires analysis or some other form of investigation and/or the application of expert knowledge

sense - analysis - respond

**Emergent practice**

**good practice**

**novel practice**
The relationship between cause and effect at system level

act - sense - respond

**Best practice**
The relationship between cause and effect is obvious to all

sense - categorise - respond

**Chaotic**

**Obvious**
Simple

• Known Knowns
• Best Practices
• Find the proper rule and apply it
• sense-categorize-respond
Complicated

• Known Unknowns

• The relationship between cause and effect requires analysis or expertise

• sense-analyze-respond
Complex

- Unknown Unknowns
- Cause and effect can only be deduced in retrospect
- probe-sense-respond
Chaotic

- cause and effect are unclear
- too confusing to wait for a knowledge-based response
- act-sense-respond
What can I manage?

Complex
The relationship between cause and effect can only be perceived in hindsight
probe - sense - respond
Emergent practice

Complicated
The relationship between cause and effect requires analysis or some other form of investigation and/or the application of expert knowledge
sense - analysis - respond
good practice

Disorder

Best practice
The relationship between cause and effect is obvious to all
sense - categorise - respond
Obvious

Chaotic
The relationship between cause and effect at system level
act - sense - respond

novel practice
Lets Play!
The right tool for the right job
What kind of feedback do I need?

• Building something new
  • Requires frequent feedback to see if I’m on the right track

• Building something you’re familiar with
  • Requires little feedback due to experience
When to be traditional?

• Don’t need much feedback
• Defined work
• Solving complicated problems
When to be agile?

• Need frequent feedback
• Empirical work
• Solving complex problems
You’ll probably need a mix

• More often than not, all your work doesn’t fall into one category or the other
• You still need to find the right tool for the right job
• If 90% of your work requires a hammer and 10% requires a screwdriver, you don’t use the hammer for all of it
• If most of work is defined, don’t try and apply traditional practices for the parts of your work that’s empirical and vice versa
Questions
Thank you
References
