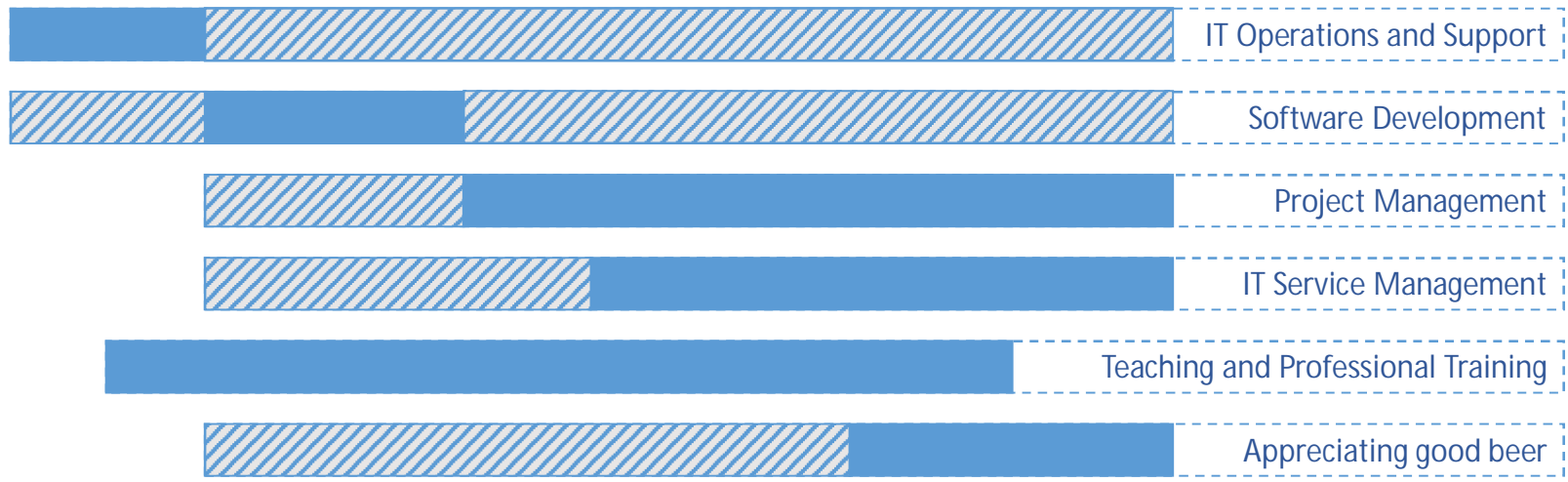


Cynefin and sense-making in the digital world

KAIMAR KARU

- » Complexity and sense-making
- » The Cynefin framework
- » Cynefin and IT Service Management
 - » Individual processes
 - » Continuous incremental improvement



COMPLEXITY

A complex system is a system composed of interconnected parts that as a whole exhibit one or more properties not obvious from the properties of the individual parts.

SENSE-MAKING

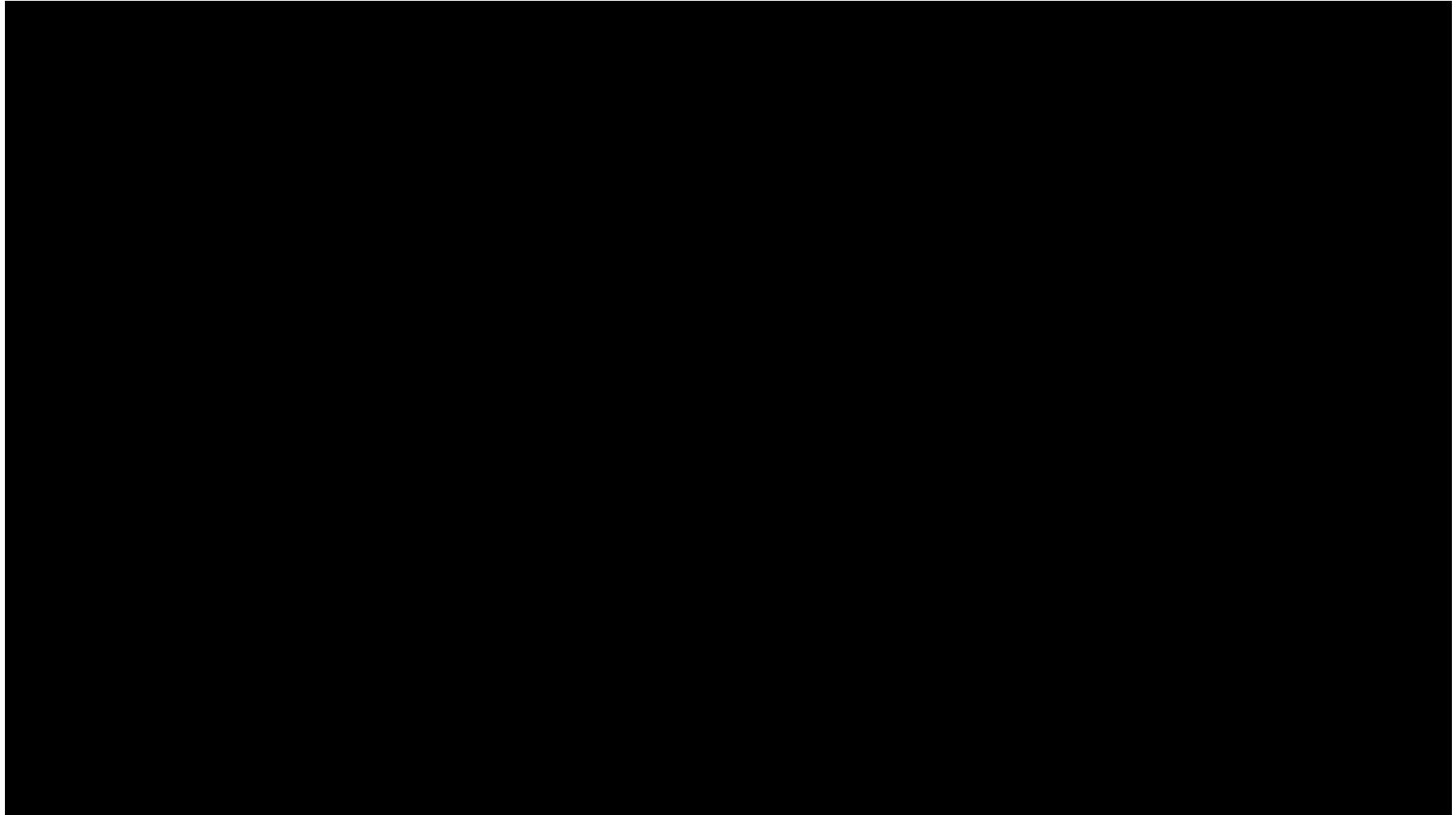
How can we make sense of the world so we can act in it?

David Snowden, 'Multi-ontology sense making; a new simplicity in decision making', 2005

- » Avoid conflict by knowing where you are
- » Understand the (un)certainty levels
- » Avoid the illusions of causality and predictability
- » Differentiate between predictability and dispositionality
- » Avoid estimations becoming promises
- » Separate between 'knowable' and 'knowable in hindsight'
- » Choose the most suitable tools and methods



CYNEFIN



U
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O
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D

COMPLEX

EMERGENT PRACTICE

PROBE – SENSE – RESPOND

EXPERIMENTATION

OVERCONTROL

DISORDER

COMPLICATED

GOOD PRACTICE

SENSE – ANALYSE – RESPOND

EXPERTISE

ANALYSIS PARALYSIS

O
R
D
E
R
E
D

CHAOTIC

NOVEL PRACTICE

ACT – SENSE – RESPOND

STABILISATION

NON-COMMUNICATION

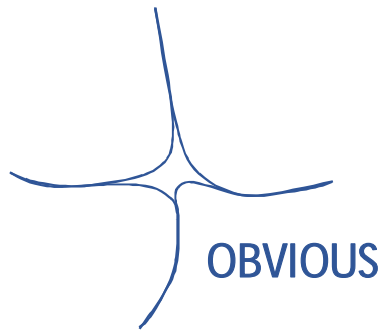
OBVIOUS

BEST PRACTICE

SENSE – CATEGORISE – RESPOND

PROCEDURES

OVERSIMPLIFICATION



OBVIOUS DOMAIN



ONE RIGHT ANSWER EXISTS

COORDINATION



Best practice



Make use of procedures



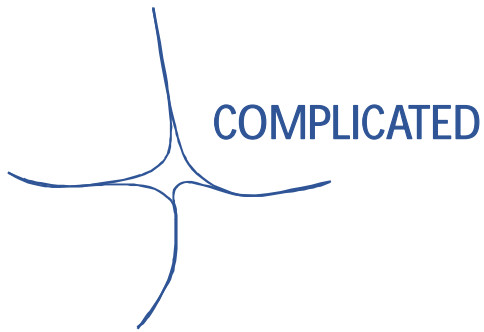
Fixed constraints



Perceivable and predictable cause-and-effect relationships



Respond with a known solution



POTENTIALLY, MORE THAN ONE
RIGHT ANSWER TO CHOOSE FROM

COOPERATION



Good practice



Make use of expert judgement



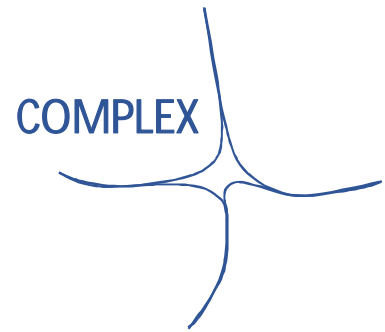
Governing constraints



Cause-and-effect relationships knowable but not obvious



Respond with a chosen solution (plan)



PROBE



SENSE



RESPOND

THERE ARE NO RIGHT ANSWERS BUT
MULTIPLE HYPOTHESES CAN BE
CREATED

COLLABORATION



Emergent practice



Make use of experimentation



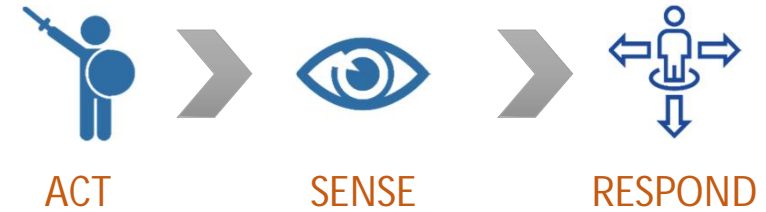
Enabling constraints



Cause-and-effect relationships known only in retrospect



Respond with actions to move to the complicated domain



ACTING FAST IS MORE IMPORTANT
THAN LOOKING FOR THE RIGHT
ANSWER

COMPLIANCE



Novel practice



Focus on stabilisation



No effective constraints



Cause-and-effect relationships not perceivable



Respond with action to move to another domain

THE CYNEFIN FRAMEWORK (RECAP)

U
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COMPLEX

EMERGENT PRACTICE

PROBE – SENSE – RESPOND

EXPERIMENTATION

OVERCONTROL

DISORDER

COMPLICATED

GOOD PRACTICE

SENSE – ANALYSE – RESPOND

EXPERTISE

ANALYSIS PARALYSIS

O
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E
D

CHAOTIC

NOVEL PRACTICE

ACT – SENSE – RESPOND

STABILISATION

NON-COMMUNICATION

OBVIOUS

BEST PRACTICE

SENSE – CATEGORISE – RESPOND

PROCEDURES

OVERSIMPLIFICATION

CYNEFIN & ITSM

COMPLICATED

SENSE – ANALYSE – RESPOND

- » 2nd/3rd level support (SMEs)
(short to medium resolution time)

DISORDER

- » 1st level support (playbooks)
- » Automated incident resolution

SENSE – CATEGORISE – RESPOND

OBVIOUS

COMPLEX

PROBE – SENSE – RESPOND

- » Brainstorming and trialing
- » Swarming

- » Major incident resolution

ACT – SENSE – RESPOND

CHAOTIC

COMPLEX

PROBE – SENSE – RESPOND

Probably a change request

COMPLICATED

SENSE – ANALYSE – RESPOND

- » 2nd level support (SMEs)
(short to medium resolution time)

DISORDER

Probably an incident

- » 1st level support (playbooks)
- » Self-service

ACT – SENSE – RESPOND

CHAOTIC

SENSE – CATEGORISE – RESPOND

OBVIOUS

COMPLICATED

SENSE – ANALYSE – RESPOND

- » Normal changes (expertise-based knowable and chosen path)

DISORDER

- » Standard changes
- » Automated changes

SENSE – CATEGORISE – RESPOND

OBVIOUS

COMPLEX

PROBE – SENSE – RESPOND

- » Normal changes (unknowable path, experiments required)

- » Emergency changes

ACT – SENSE – RESPOND

CHAOTIC

UNIVERSAL ÜBER-SIMPLIFIED MODEL

COMPLEX

PROBE – SENSE – RESPOND

*No-one can figure out what to do
(and evidence supports conflicting hypotheses)*

COMPLICATED

SENSE – ANALYSE – RESPOND

*Someone can figure out what to do
(and not all have to agree, choose an option)*

DISORDER

*Someone must do something NOW
(and stabilisation is most important)*

*Someone knows what to do
(and everybody agrees)*

ACT – SENSE – RESPOND

CHAOTIC

SENSE – CATEGORISE – RESPOND

OBVIOUS

COMPLICATED

SENSE – ANALYSE – RESPOND

- » Projects with knowable risks, requiring specific expertise
- » e.g. implementing an ERP solution

DISORDER

COMPLEX

PROBE – SENSE – RESPOND

- » Projects with high level of uncertainty, requiring experiments
- » e.g. product R&D or innovation

- » Projects in crisis or with unknown scope / business rationale

- » Routine, low-risk projects with clear estimates
- » e.g. building a new simple web site

SENSE – CATEGORISE – RESPOND

OBVIOUS

ACT – SENSE – RESPOND

CHAOTIC

CONTINUOUS
INCREMENTAL
IMPROVEMENT

THE HAWTHORNE EFFECT



- » Standardization: move things from Complicated to Obvious
- » Automation: minimize the 'human touch' element in Obvious
- » Compliance: automated standardized work comes with an audit trail

- » Innovation: allow for experimentation and 'failure' in Complex
- » Direction: focus on the vector; nudge, not push
- » Influence: oblique, not direct

- » Approach: small steps; no 'shiny' targets; 'start where you are'

- » Philosophy: IT as the innovation unit, not a cost center

Get in touch



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