

The Deliberate Practice of Thinking About Your Systems

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About Andrea

Programmer and Creator of Bytesize Architecture Sessions



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- Programming professionally since 2001
- Co-founded PC & Console Games Company in Ireland
- Worked in enterprise, medium and small companies
- Contracting and Consulting since 2018
 - E-Commerce
 - Broadcasting media
 - Finance
- Moved to NZ a year ago

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You ship what is in your programmers' brains.



Andrea Magnorsky - 2021



**“It’s not the domain experts knowledge
that goes into production, it’s the
assumption of the developers that goes
into production.”**



Alberto Brandolini - 2019*

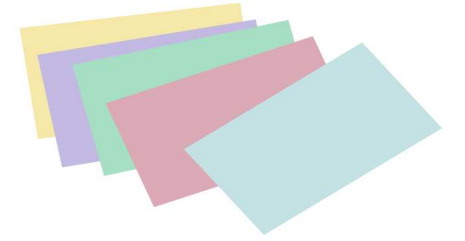
***or before**

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Knowledge workers are workers whose main **capital is knowledge. These are workers whose job is to “*think for a living*”.**

Knowledge Stock



is the **store** of knowledge
you have developed or can
access.



...each pile represents a person's knowledge

Knowledge Flow



**... the lines represent knowledge sharing in ways
that change the system**



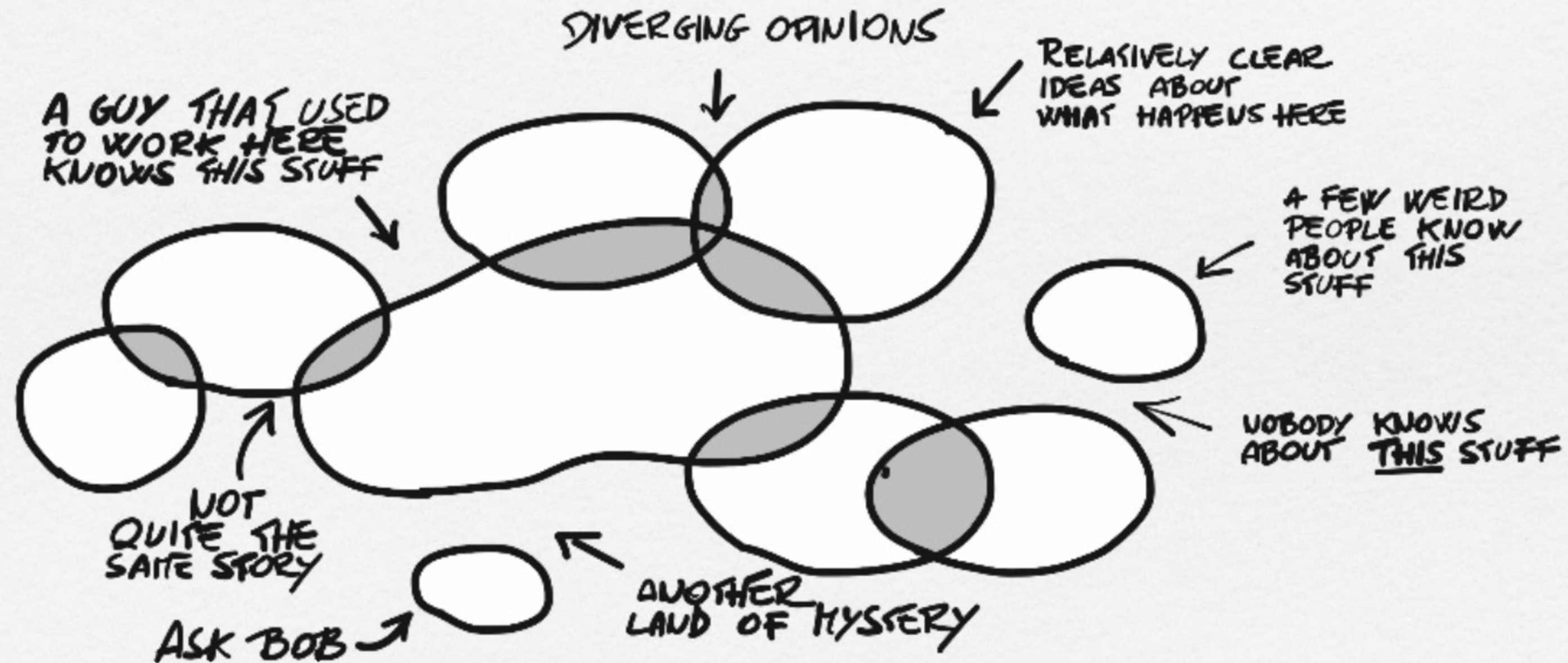
“Knowledge transfer among employees is thought to be a **crucial determinant** of an organisation’s capacity to utilise new knowledge and **innovate.**”



Liao et al., 2007



THE KNOWLEDGE DISTRIBUTION



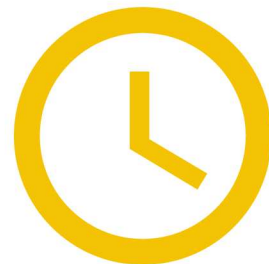
The way the knowledge is distributed during workshops.

Source: Presentation by A. Brandolini

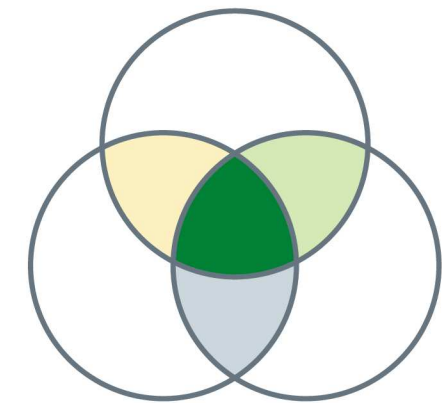
Added difficulty



- Changing teams
- Coordination between teams
- Conflicting long term plans

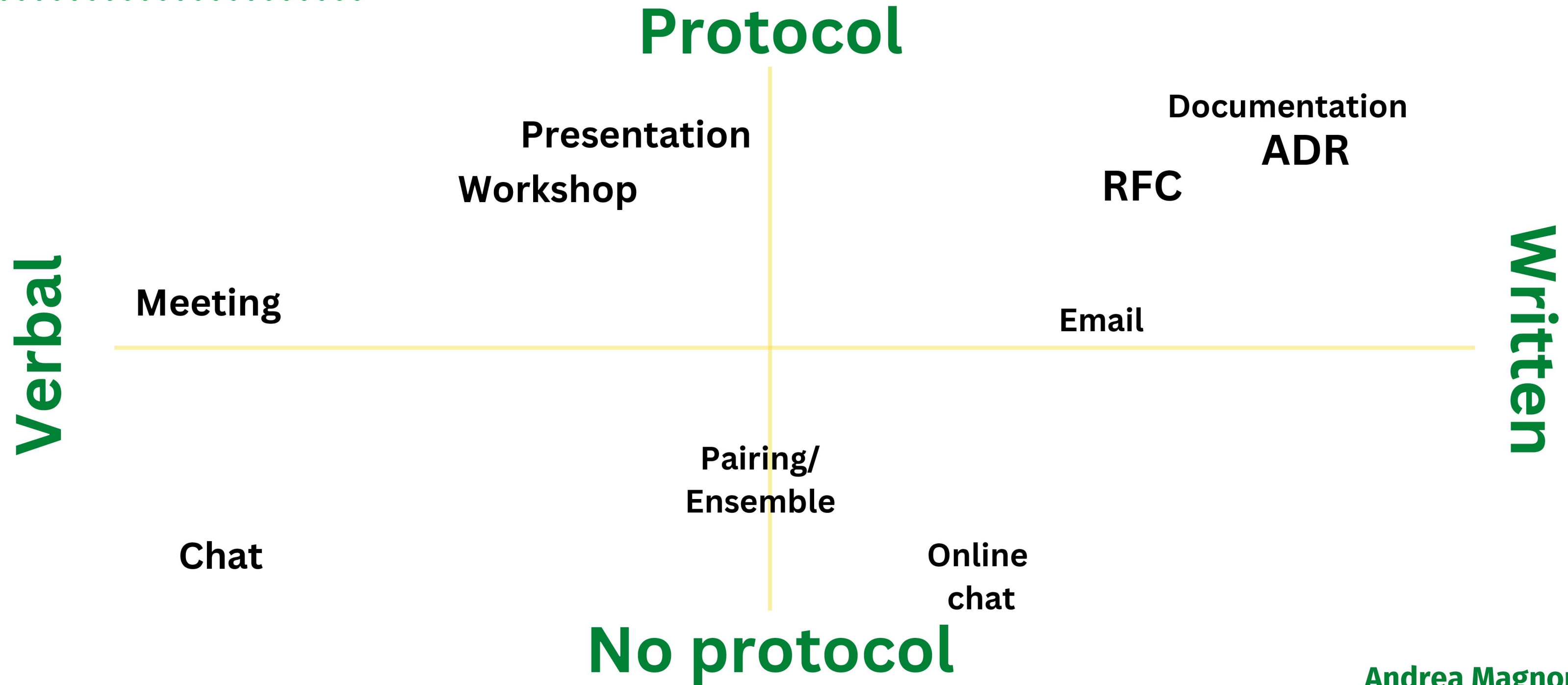


- Power
- Role dependent information variance



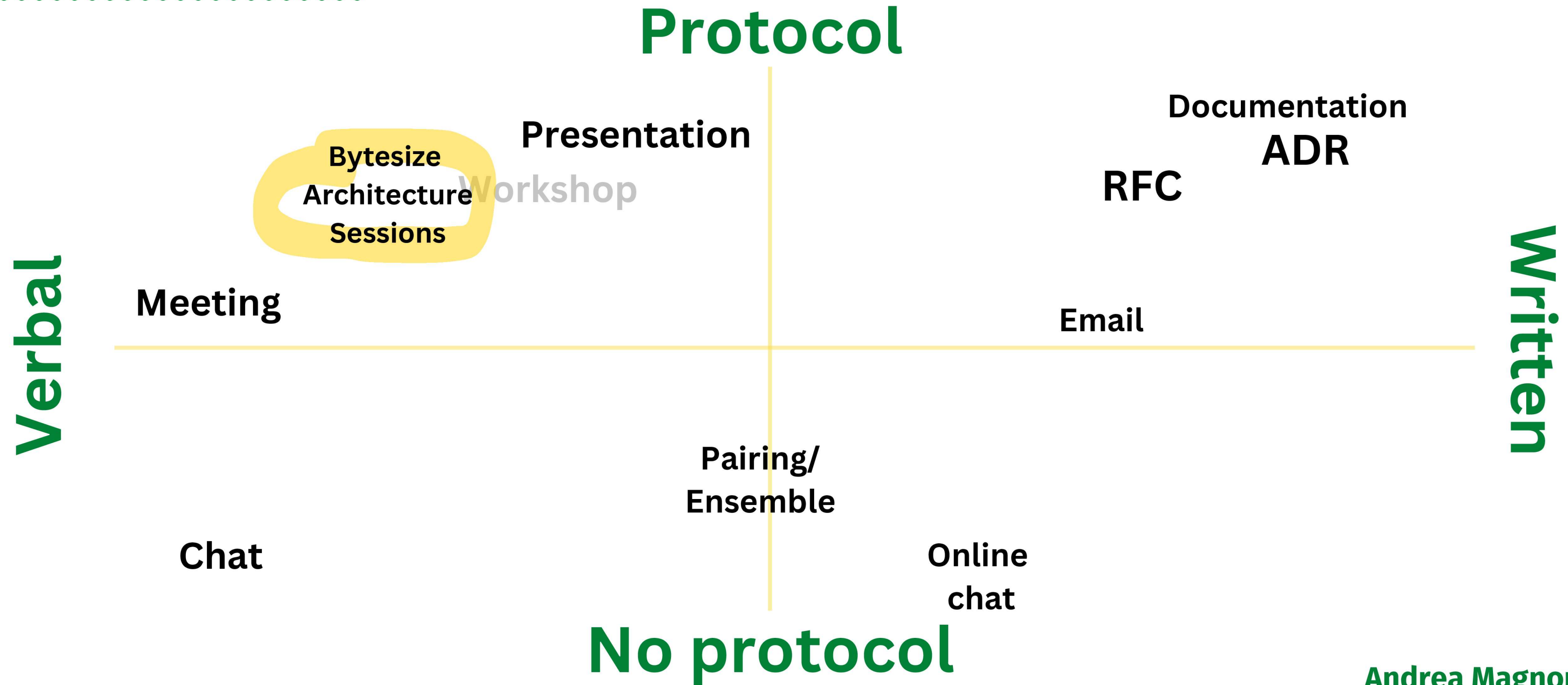


Knowledge sharing methods





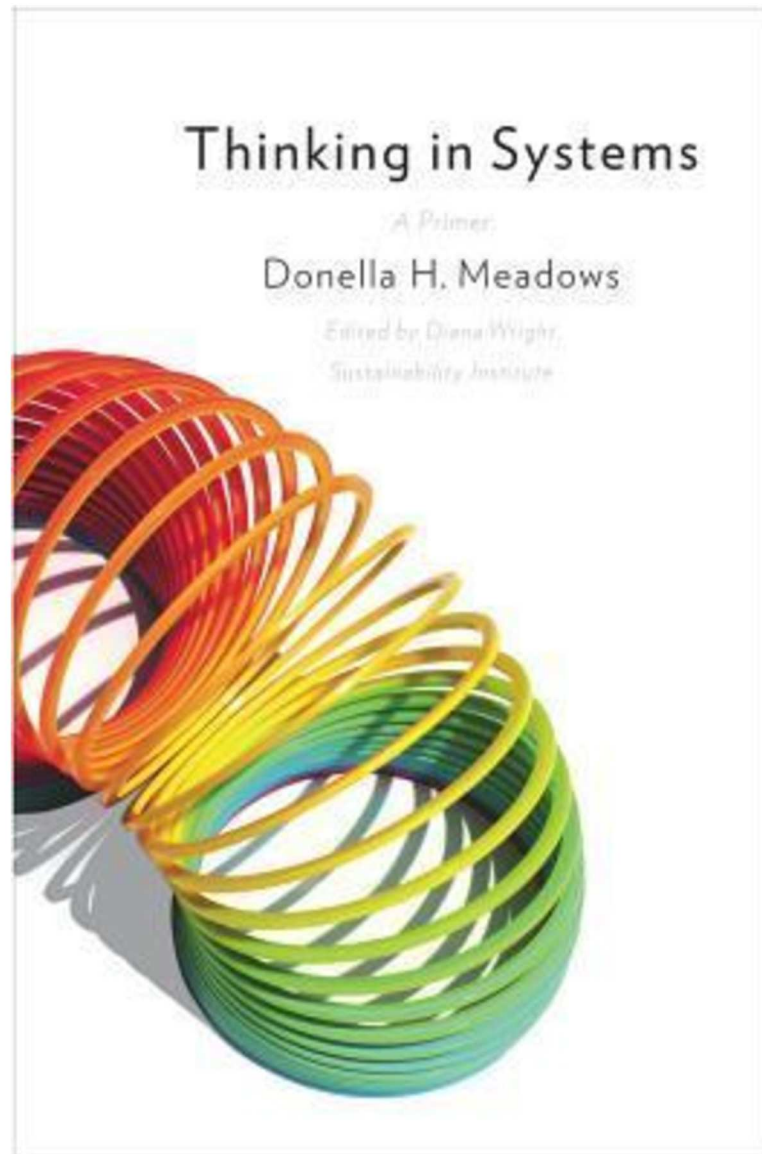
Knowledge sharing methods





Bytesize Architecture Sessions[T] is a workshop format





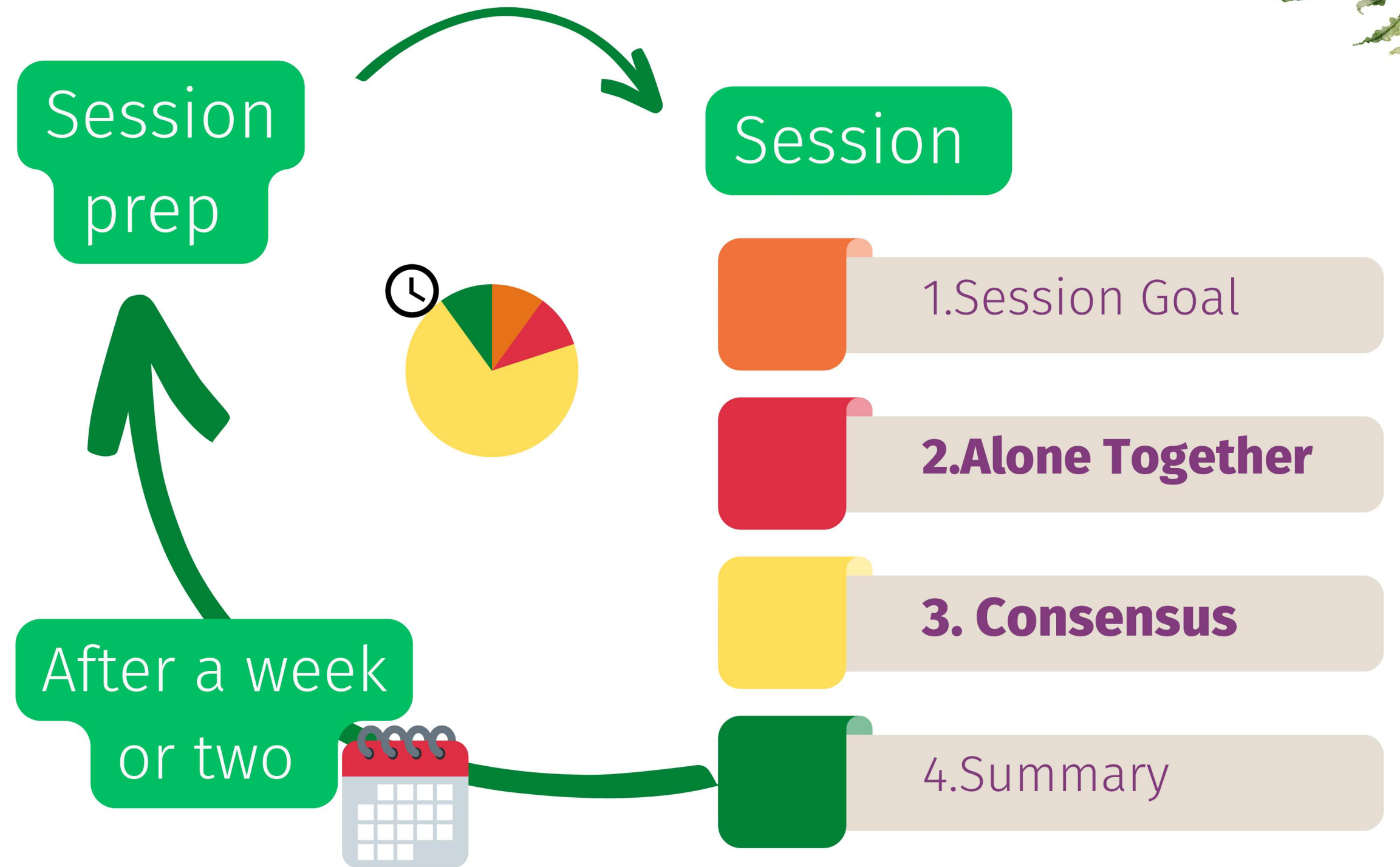
“Words and sentences must, by necessity, come only one at a time in linear, logical order. **Systems happen all at once.** They are connected not just in one direction, but in many directions simultaneously.”



Thinking in Systems: A Primer by Donella H. Meadows

Format

.....



In their words

.....



The main thing I took from today is
that everyone brought their own
perspective and that enabled us **all**
to learn something



Jim Taylor
Senior Product Manager
ITV

Why run Bytesize Sessions?

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1

**Towards congruent
understanding of
your System**

2

Enabling format

3

**Creates design
tools**



Build an architecture practice in a **safe** way





When to use Bytesize Architecture Sessions?

Tech debt

Acknowledge problems and plan for the future

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Evolving Team

Acknowledge gaps and learn together

.....

Big Changes

**Map current and ideal. Iterate towards optimal
solution**



Industry example: the first Bytesize Architecture Session

Before the Session



- **Invited the team.**
Active participants
of the stand up
- **Taught the team**
about C4 Model



Session starts



Session

1.Session Goal

2.Alone Together

3. Consensus

4.Summary

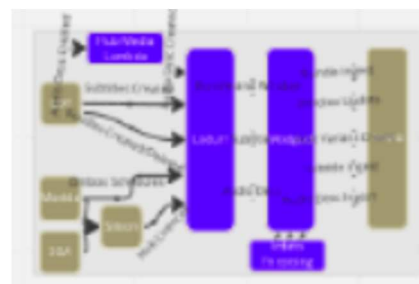
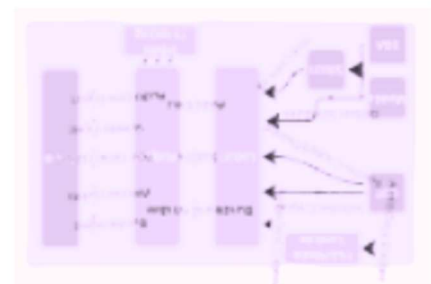
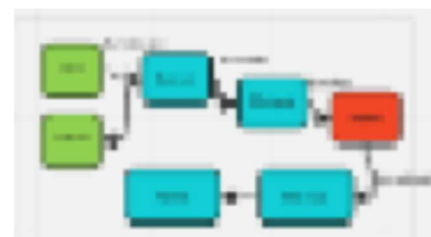
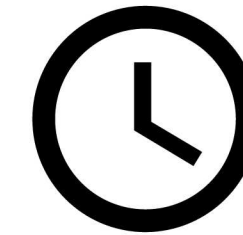
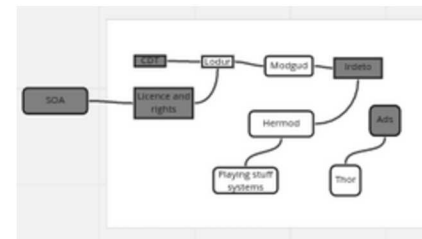


1. Goal



**Set the goal:
Create a context
diagram of the
system as it is.**

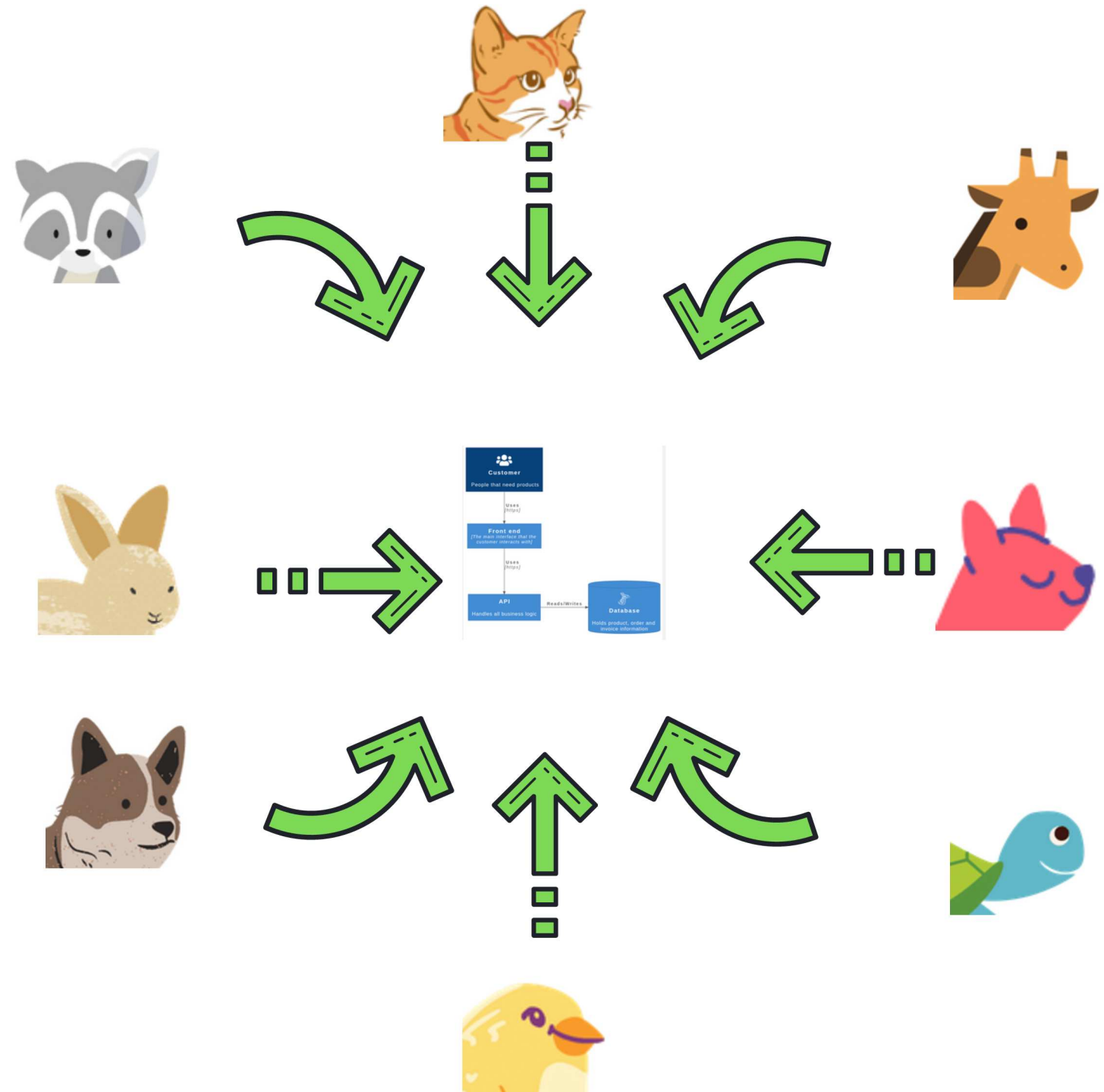
2. Alone Together



When the 3min timer elapsed each attendee explained their model.

3. Consensus

The team drew part
of the system.
End session before
they were done.



4. Summary

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The team summarised that they:

- Learned more than expected
- Format helped them focus
- Wanted to finish the diagram soon.
- What should they model next



Iterate!



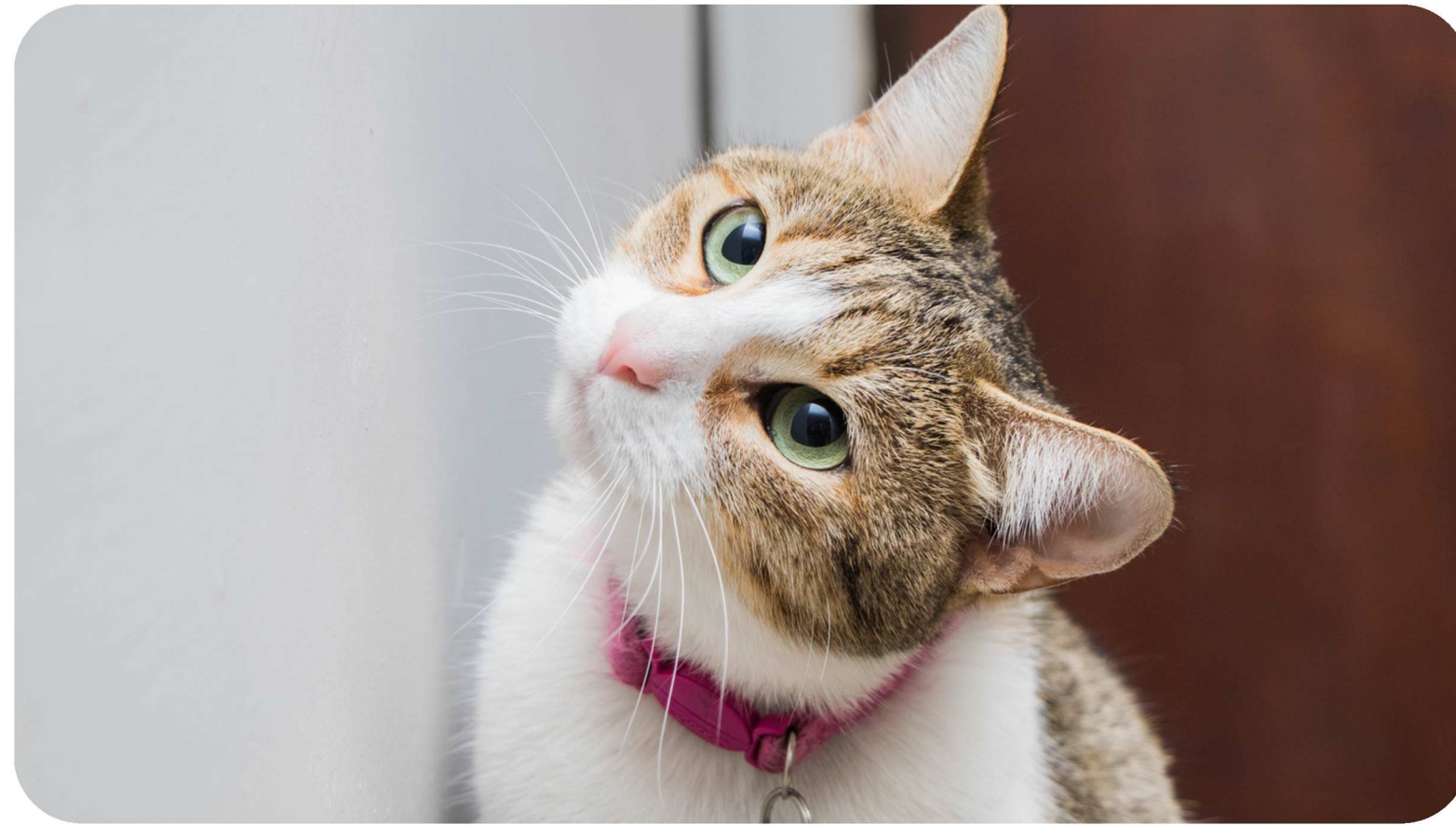
- Reviewed guests
- Discuss possible goals: Finish System Context



More info



www.BytesizeArchitectureSessions.com





Kea

Bytesize Architecture Sessions in books



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**Extended case study:
Inter-team collaboration**

- **More in Chapter 17 ...**



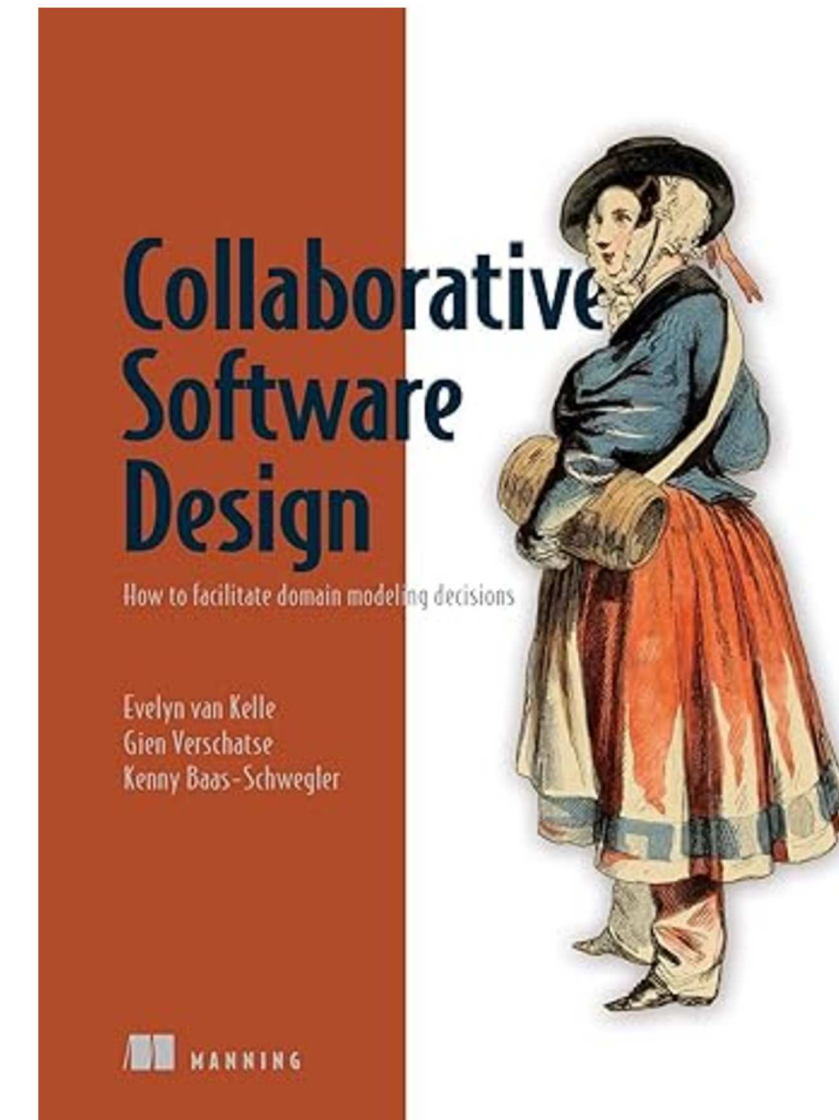
Architecture Modernization
Nick Tune

Collaborative Software Design



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A great book that helps you
find what, why and how to
design software together.



Collaborative Software Design
Evelyn van Kelle, Gien Verschatse,
and Kenny Baas-Schwegler

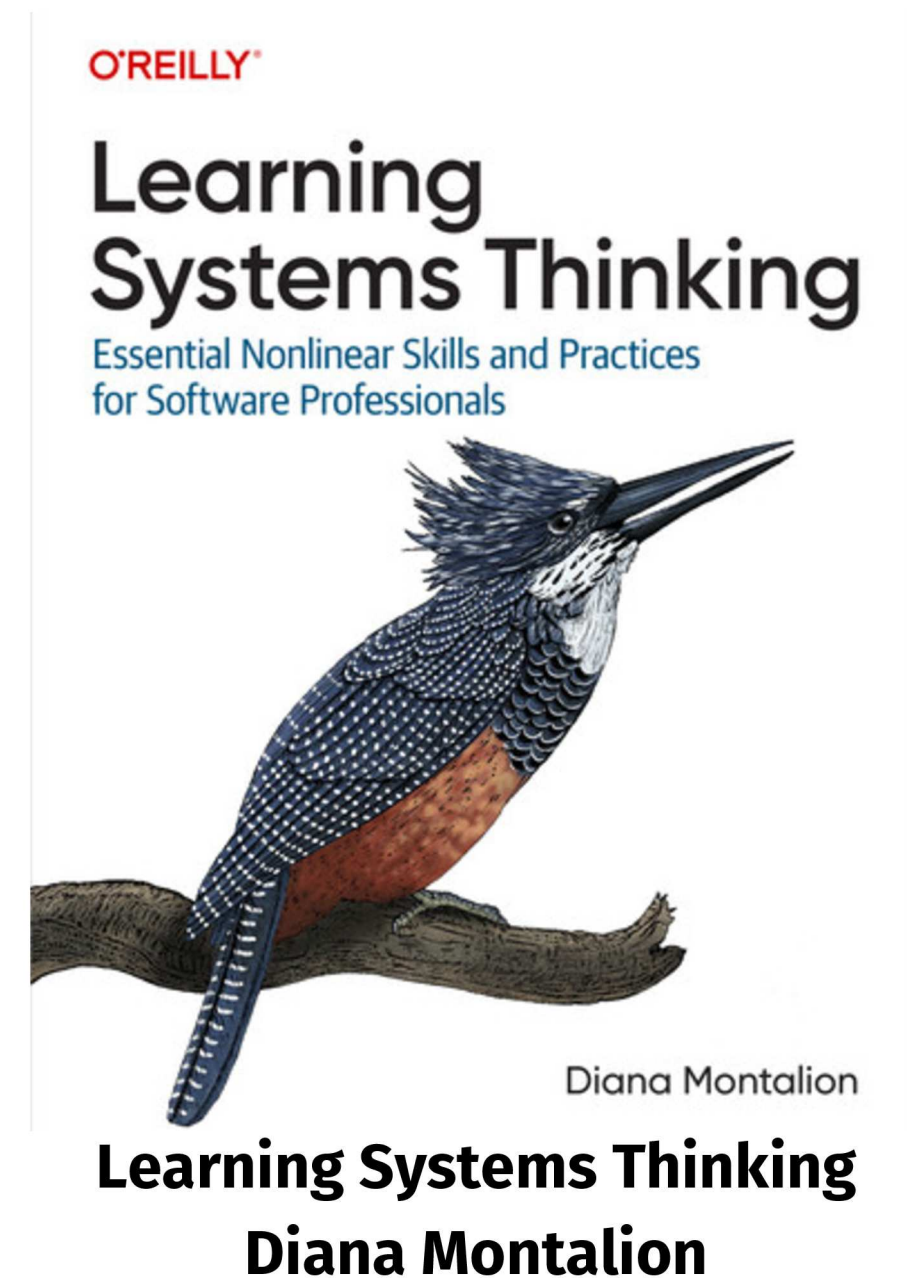
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Learning Systems Thinking

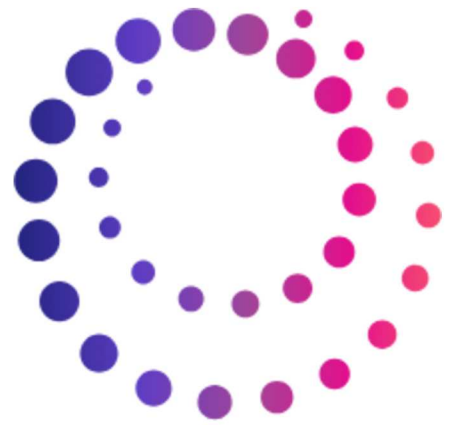


“Deeply insightful, reassuringly practical, delightfully real, and staggeringly well written.”

Kevlin Henney



Bytesize Sessions at the Open Practice Library



Bytesize Architecture Sessions

Iteratively collaborate to learn about your systems

▲ FOUNDATION

CONTRIBUTED BY PUBLISHED APRIL 23, 2025

COLLECTION  2

WHAT WHY HOW LOOK LINKS DISCUSS

SHARE    

What Is Bytesize Architecture Sessions?

Bytesize Architecture Sessions are a workshop format that helps teams understand the systems they work on. Each session focuses on a small slice of a system. After some sessions your team will become more homogeneous in the understanding of their systems, grow a consistent vocabulary and ultimately build tools to design the future together.

A session lasts between 45 and 90 minutes, and has four well defined parts: Session Goal, Alone Together, Consensus and Summary. You can model your systems using different tools. I suggest starting with [C4 Diagrams](#).



<https://openpracticelibrary.com/practice/bytesize-architecture-sessions/>

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Foundational pieces





Thinking in Systems

A Primer

Donella H. Meadows

*Edited by Diana Wright,
Sustainability Institute*



“A system is an interconnected set of elements that is **coherently** organized in a way that achieves something”

-- Donella Meadows



Russ Ackoff

**“A system is not the sum of
its parts, it's their
interactions”**

Source: youtube.com/watch?v=OqEelG8aPPk

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Knowledge Sharing is Systems Building





Thank You!

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