## The Deliberate Practice Thinking About Your Systems





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#### About Andrea



Programmer and Creator of Bytesize Architecture Sessions

- Programming professionally since 2001
- Co-founded PC & Console Games Company in Ireland
- Contractor and Consulting since 2018
  - ∘ E-Commerce
  - Broadcasting media
  - Finance
- Recently moved to NZ and working with Atlassian



## 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\*



## Knowledge workers are workers whose main capital is knowledge. These are workers whose job is to "think for a living".

## Knowledge Stock & Flow





...each pile represents a person's knowledge and the lines represent sharing







"Knowledge transfer among employees is thought to be a crucial determinant of an organisation's capacity to utilise new knowledge and innovate."



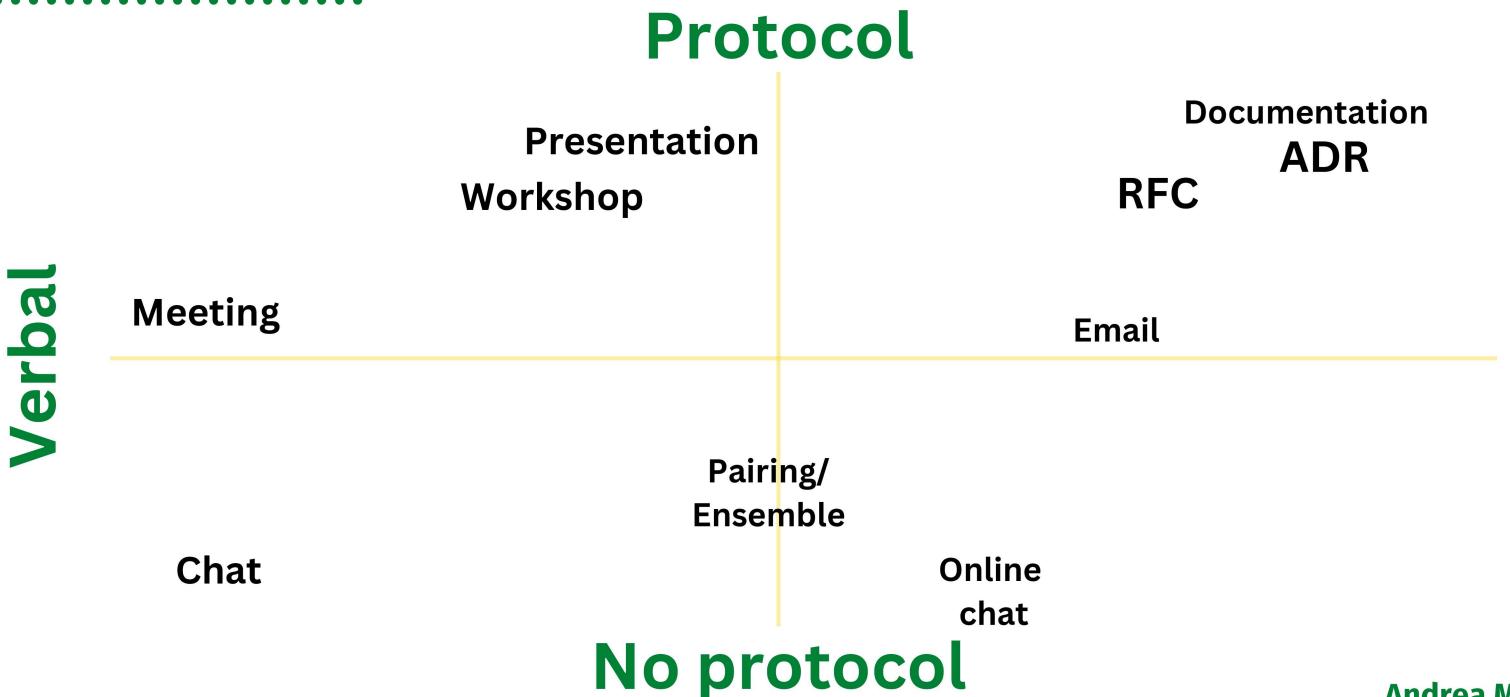
- Changing teams
- Coordination
   between teams
- Conflicting long term plans

- Power
- Role dependent information
   variance



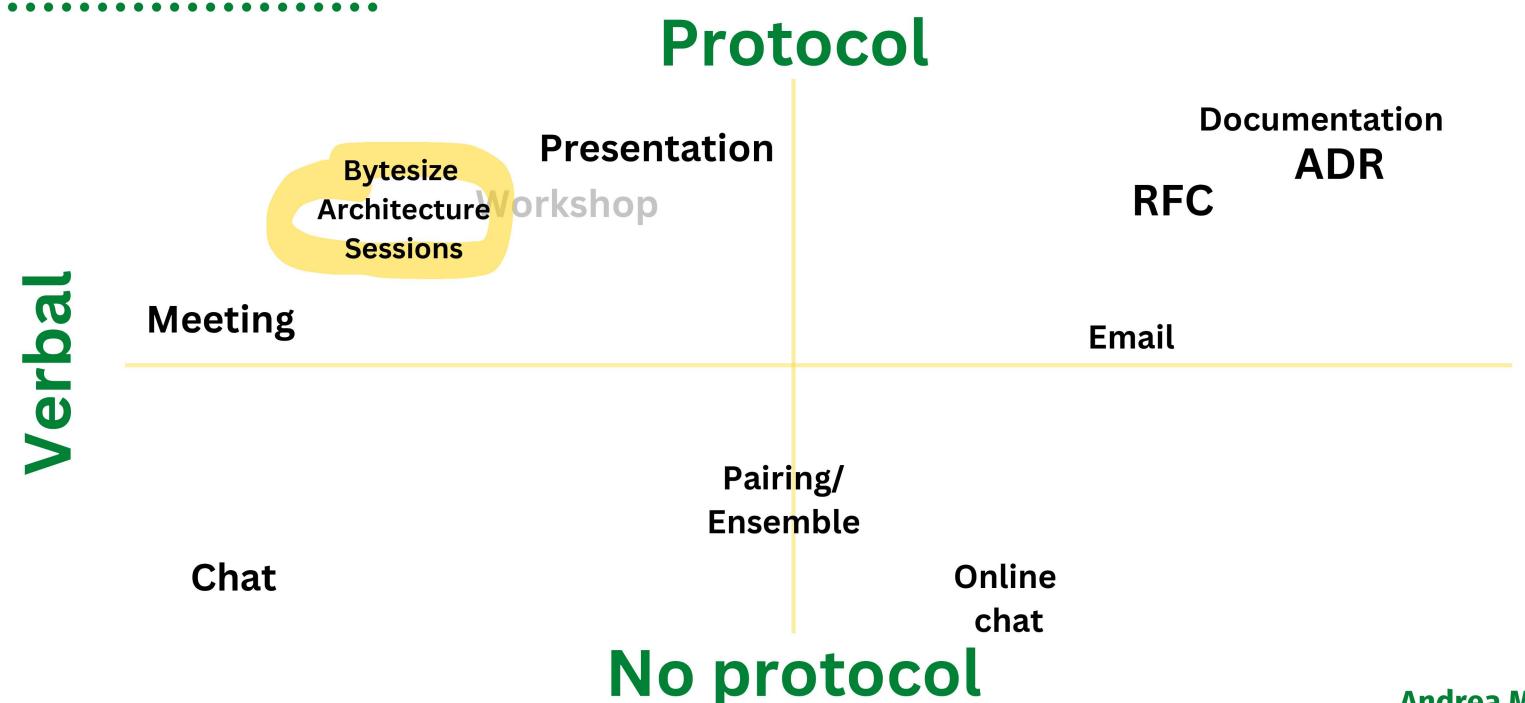


## Knowledge sharing methods





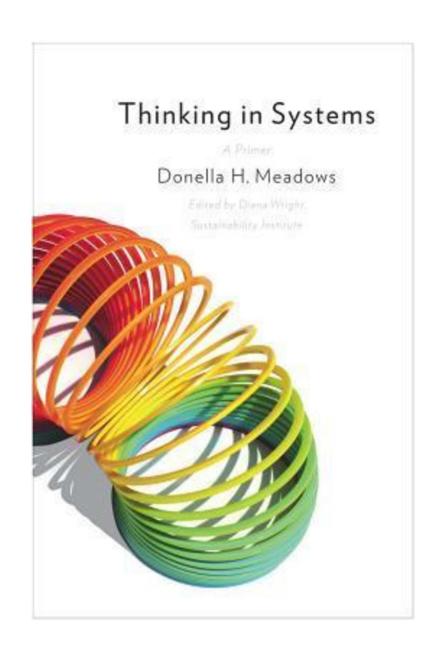
## Knowledge sharing methods





# Bytesize Architecture Sessions[T] is a workshop format

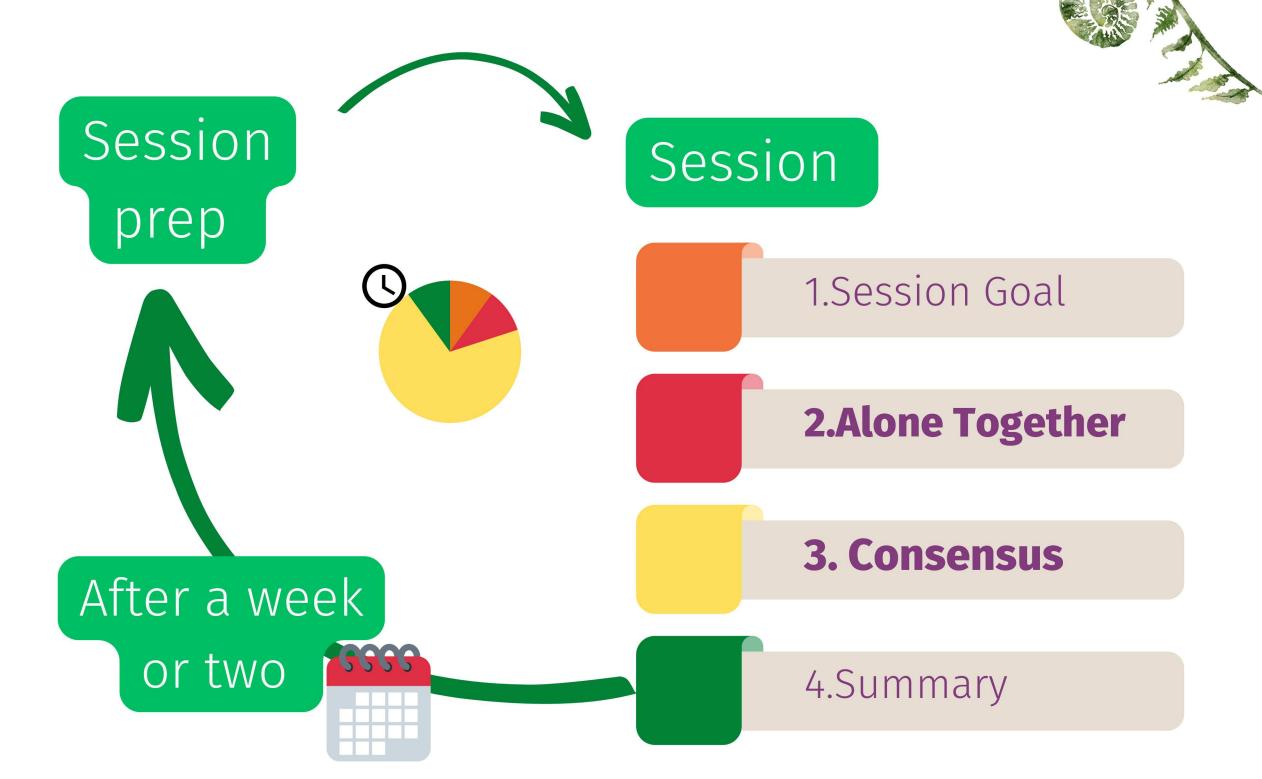




"Words and sentences must, by necessity, come only one at a time in linear, logical order. **Systems happen all at once**. They are connected not just in one direction, but in many directions simultaneously."

## Thinking in Systems: A Primer by Donella H. Meadows

#### Format









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?





2

3

Toward homogeneous understanding of your System

**Enabling format** 

Creates design tools



## Build an <u>architecture</u> <u>practice</u> in a safe way



## When to use Bytesize Sessions?

#### **Tech debt**

Acknowledge problems and plan for the future

**Evolving Team** 

Acknowledge gaps and learn together

**Big Changes** 

Map current and ideal. Iterate towards optimal solution

Andrea Magnorsky www.roundcrisis.com



## Industry example: the first Bytesize Architecture Session



















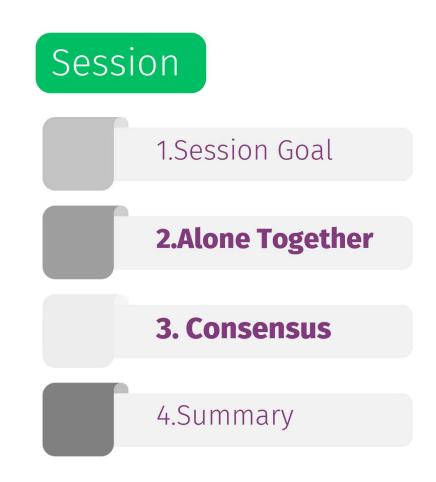


- 1. Invited the team. Active participants of the stand up
- 2. Taught the team about C4 Model





## Session starts





#### 1. Goal







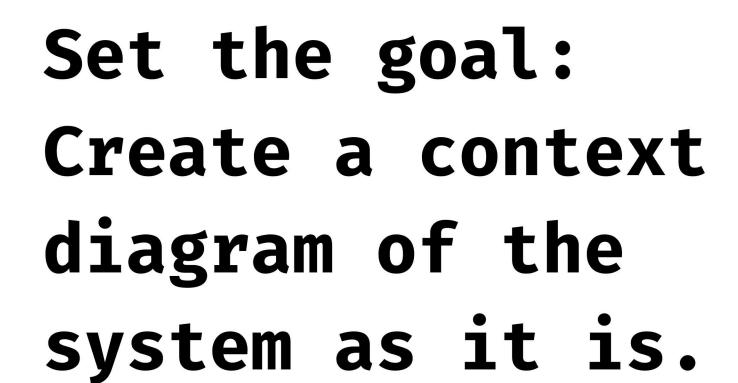












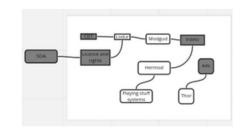






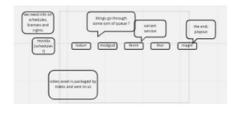








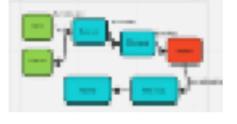




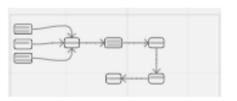




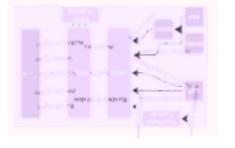




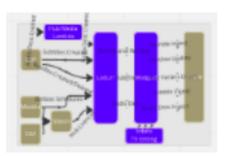








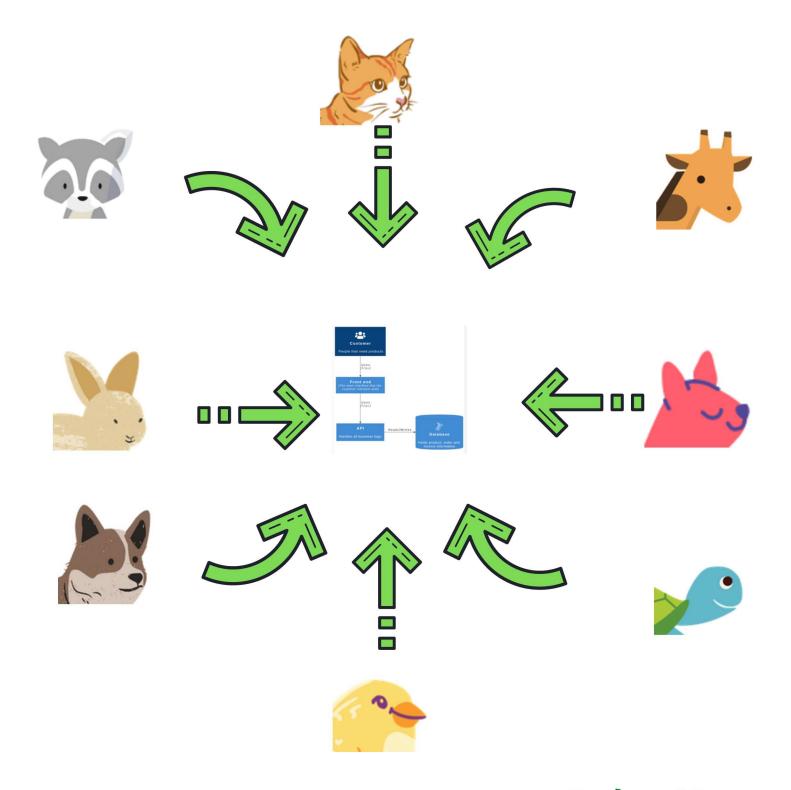




When the 3min timer elapsed each attendee explained their model.

#### 3. Consensus

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



### 4. Summary

#### The team summarised that they:

- Learned a lot
- Were very happy with the format and,
- Wanted to do it again soon.

















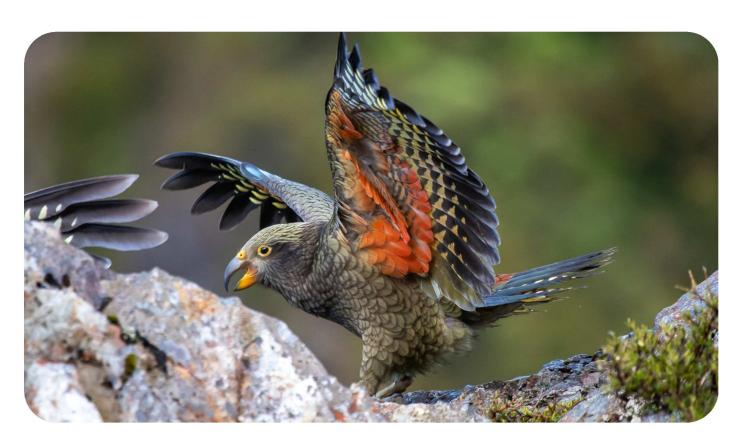


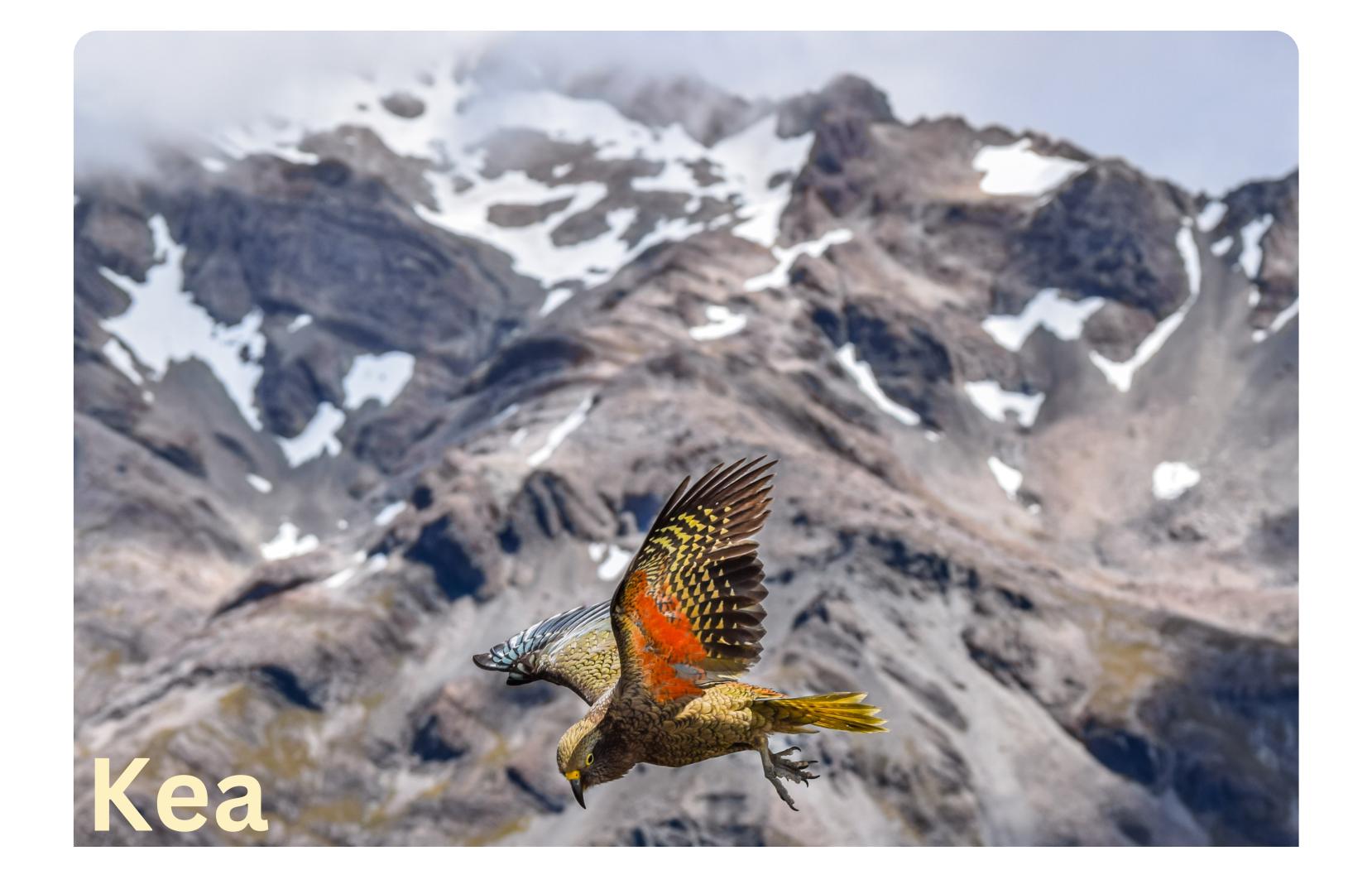












Extended case study: Inter-team collaboration

- Cohesive understanding
- Well documented

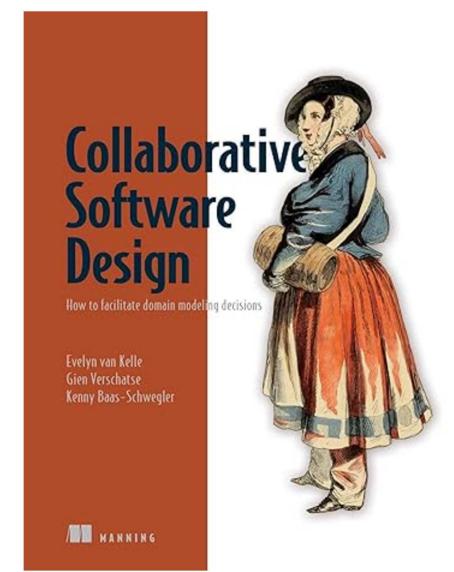
• More in Chapter 17 ...



Architecture Modernization
Nick Tune



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



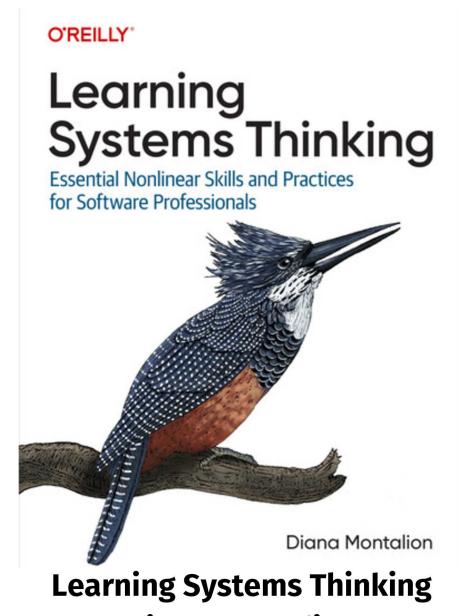
Collaborative Software Design Evelyn van Kelle, Gien Verschatse, and Kenny Baas-Schwegler

#### **Learning Systems Thinking**

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

Kevlin Henney





**Diana Montalion** 

#### **Bytesize Sessions at the Open Practice Library**







#### 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 <u>C4</u> <u>Diagrams</u>.

https://openpracticelibrary.com/practice/bytesizearchitecture-sessions/



## Foundational pieces







#### Russ Ackoff

## "A system is not the sum of its parts, it's their interactions"

**Source**: youtube.com/watch?v=OqEeIG8aPPk



### Why do we share Knowledge?

## Knowledge Sharing is

## Systems Building





