

# The Making of a Decision



Andrea Magnorsky

ADA Conf - Melbourne 2024



# 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



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[www.roundcrisis.com](http://www.roundcrisis.com)



**How many times have  
important decisions gone  
exactly like you expected?**

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# Architectural Decisions

O'REILLY®

Facilitating  
Software  
Architecture

Empowering Teams  
to Make Architectural  
Decisions



Andrew Harmel-Law

Facilitating Software Architecture  
Andrew Harmel-Law

“...architectural decisions are happening over and over again, throughout the lifespan of the system, eternally and unpredictably. **That's a lot of decisions, all piled up, one on top of the other, each an ossified record of the power structures and feedback loops ⏱ (or lack of them) that got it there.”**

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# Agenda

- Examples of Architectural Decisions
- The Anatomy of a Decision
  - Power
  - Knowledge
- Tools



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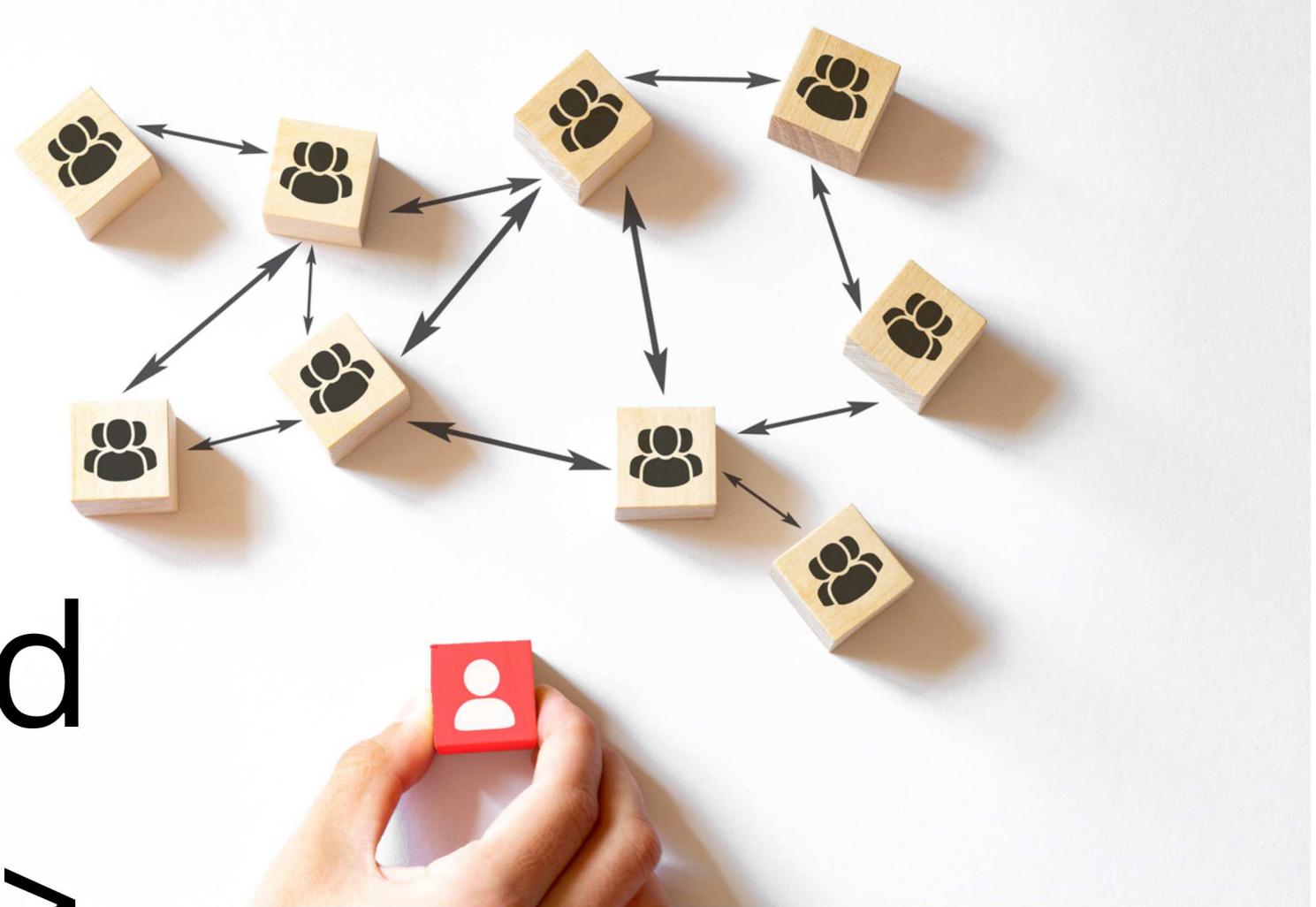


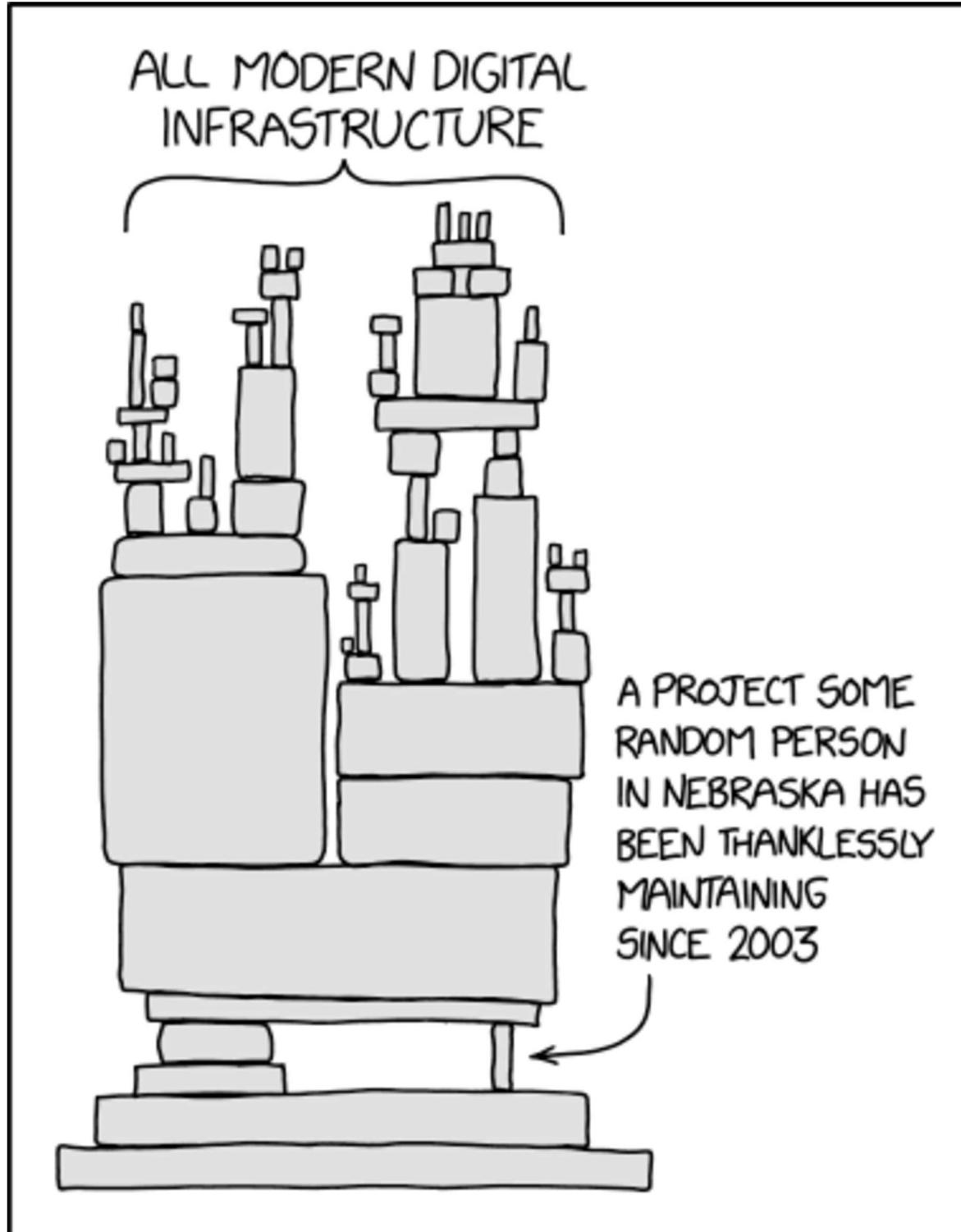
# Example Scenarios



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Growth into new territories via acquisitions that need to be integrated by <a very near date>





<https://xkcd.com/2347/>

# Replacement of a business critical third party



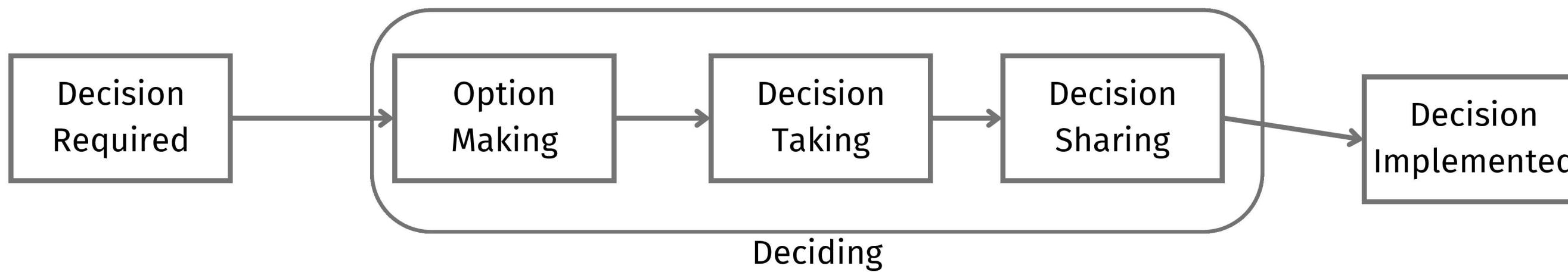
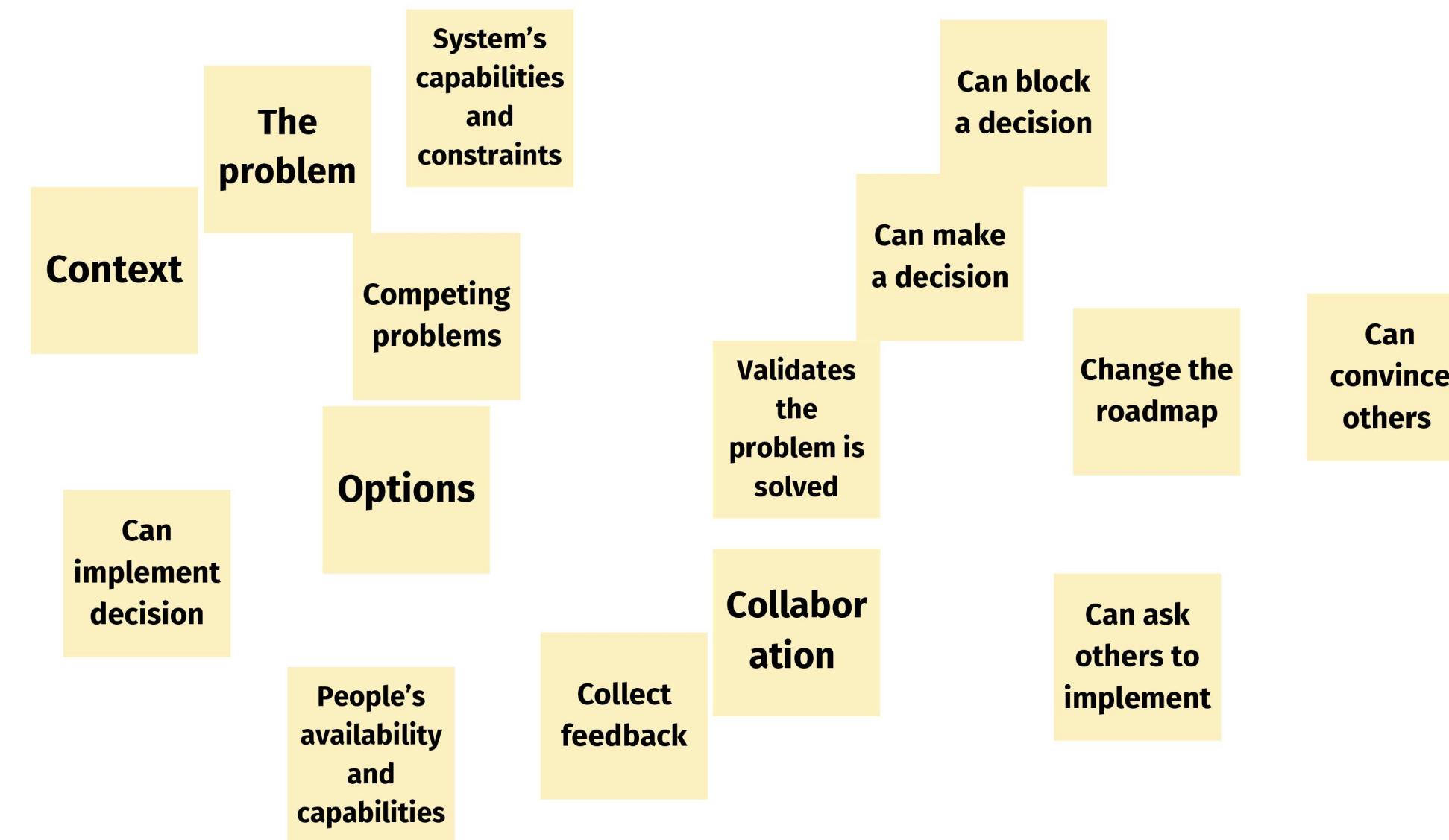
**An incident resolution that  
is affecting decision making  
years after the event.**



# Anatomy of a Decision

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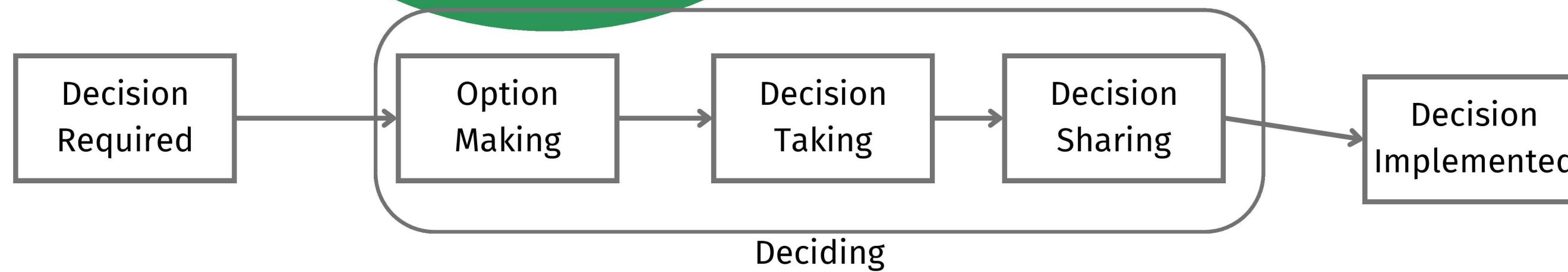
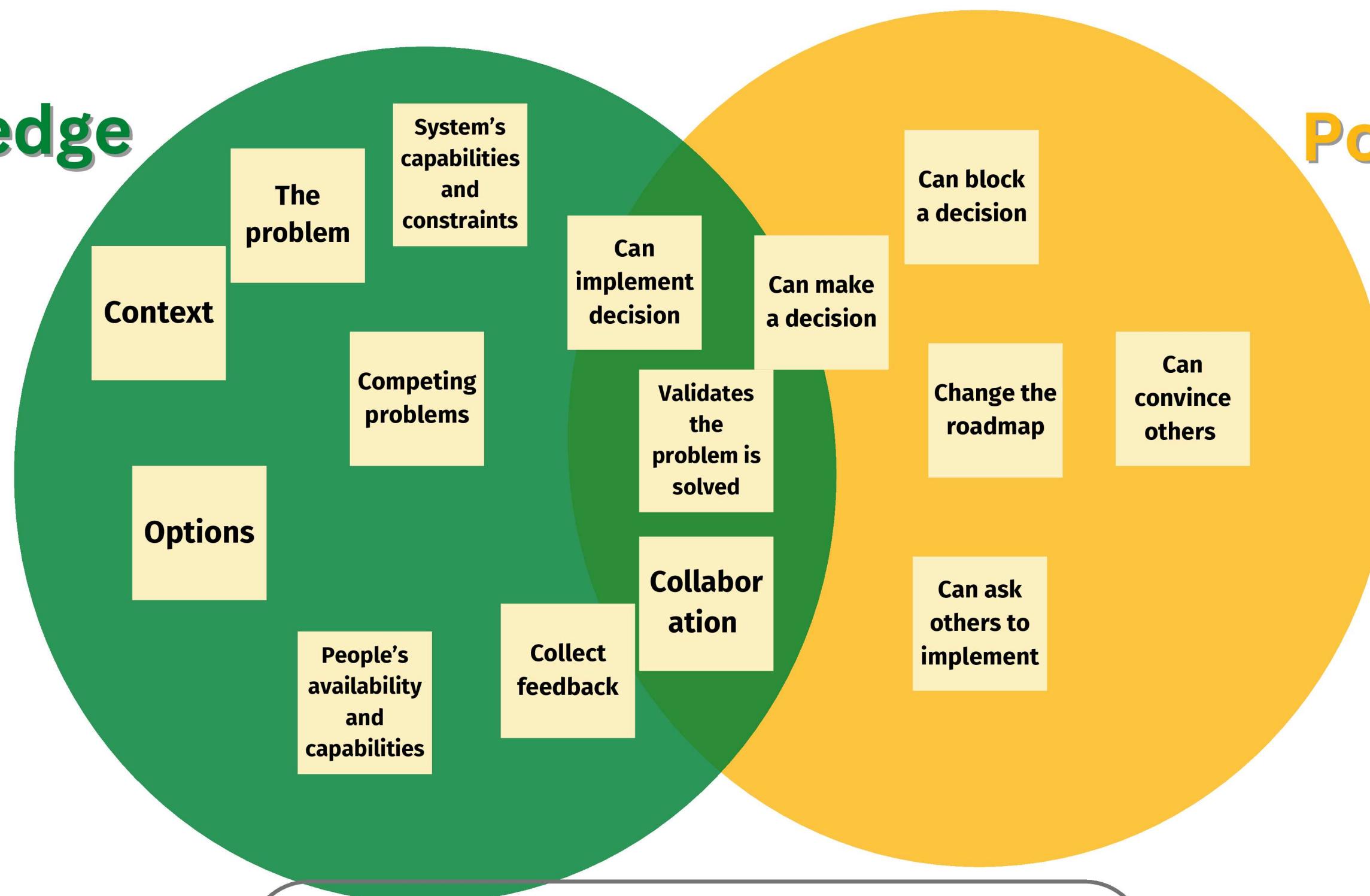
# “Ingredients” of a decision



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# Knowledge



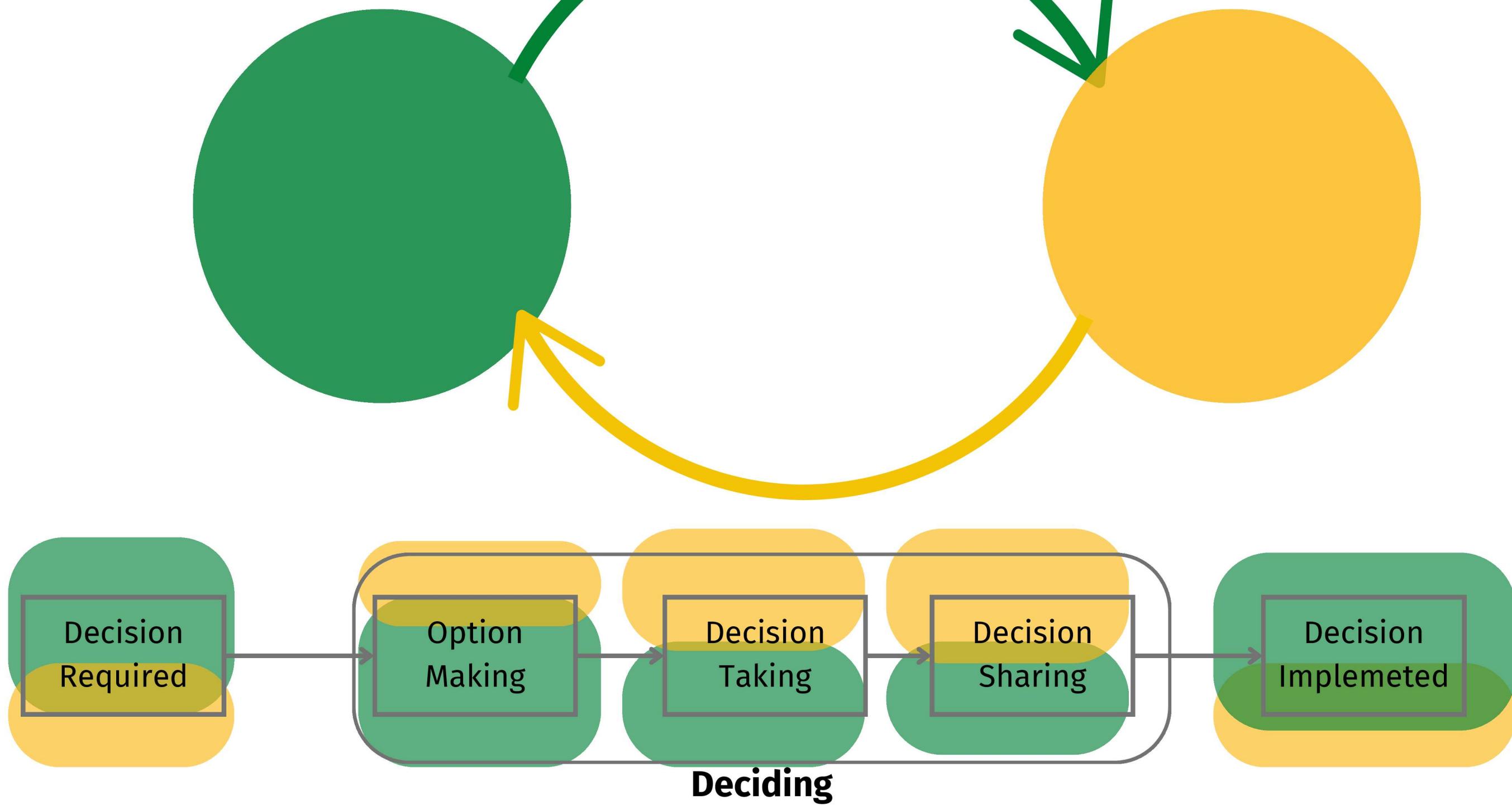
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# Knowledge

# Power





# Power



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# Power-With



Mary Parker Follett  
(1868-1933)

“Power might be defined as simply the ability to make things happen, to be a **causal** agent, to initiate change.”



Dynamic Administration: The Collected Papers of Mary Parker Follett

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# Power-Over

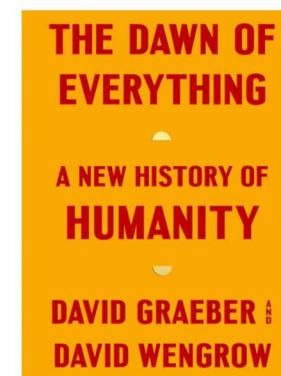


“Power is the ability to make others do as you would have them do.”

Source: <https://plato.stanford.edu/entries/feminist-power/>

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# Sources Of Power



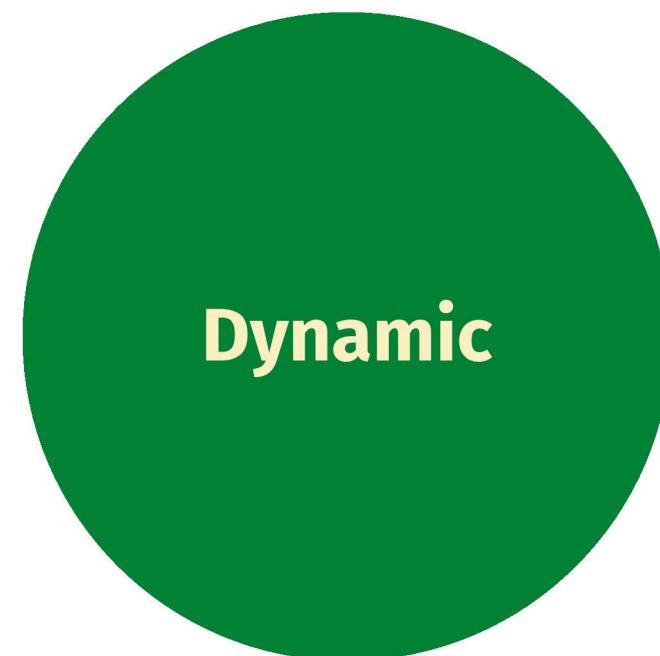
The Dawn of Everything  
D. Graeber and D. Wengrow

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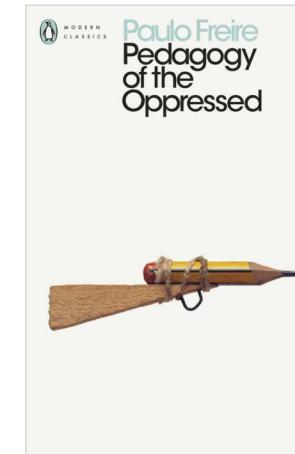




# Laws Of Power



Related read



Pedagogy of the Oppressed  
Paulo Freire

Source: How to understand power - Eirc Liu

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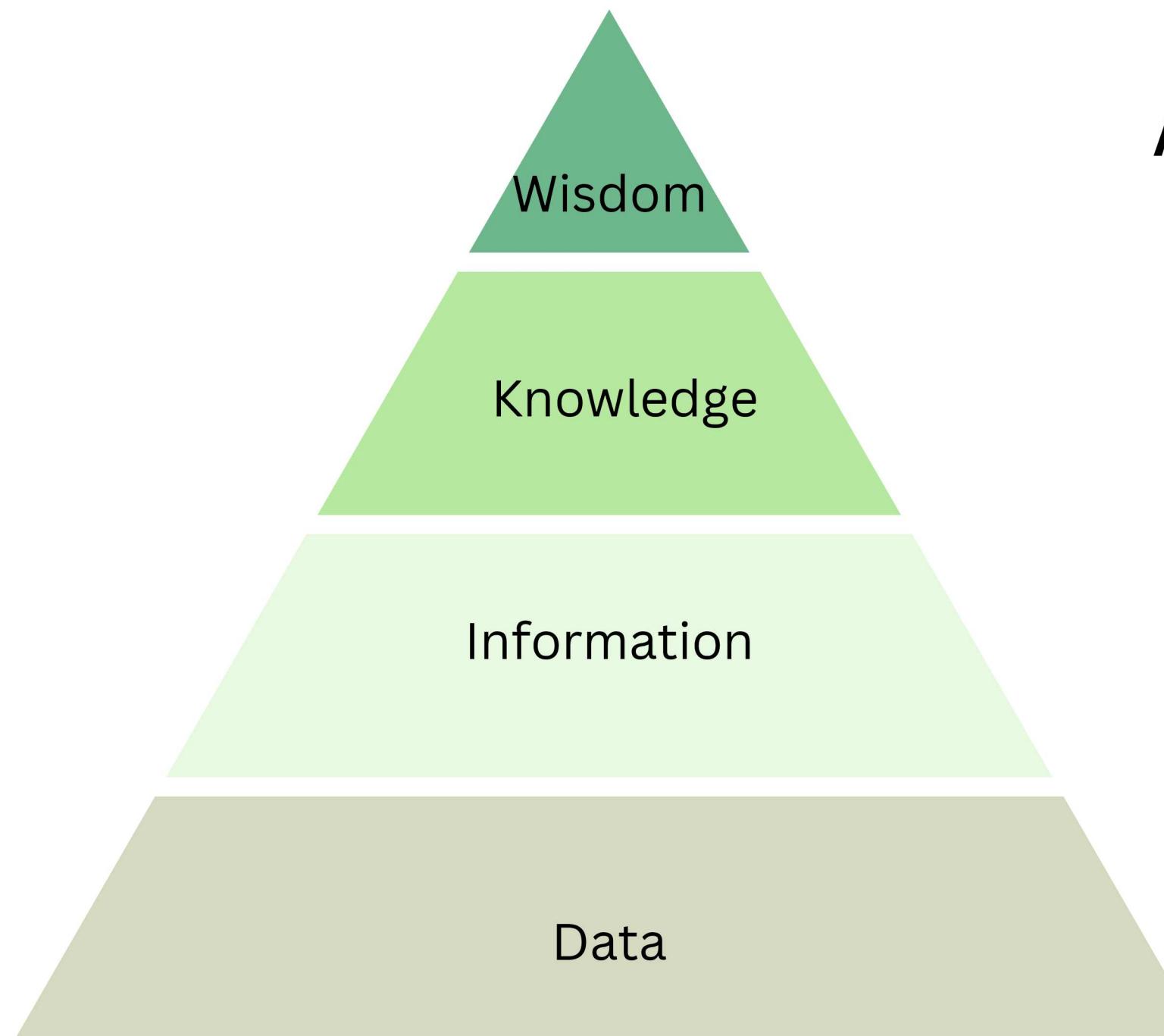
# Knowledge



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# DIKW Pyramid



**Application of Knowledge over time** 

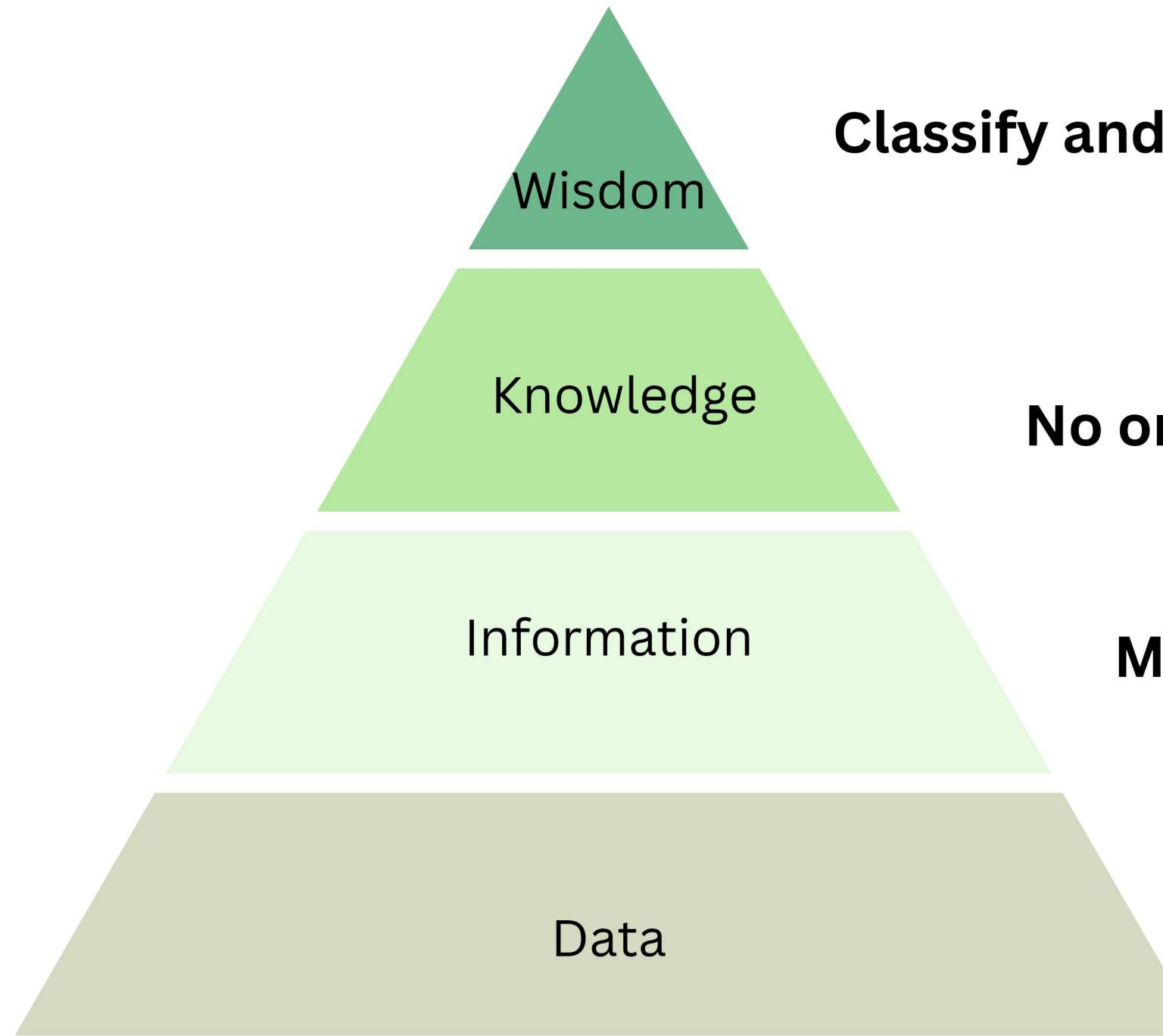
**Information with experience**

**Data with Context**

**Facts**



# DIKW Pyramid



**Classify and help teams onboard into established patterns.  
Budgets**

**No one size fits all solutions. Resilience as a principle**

**Migration paths to alternative libraries trialed.**

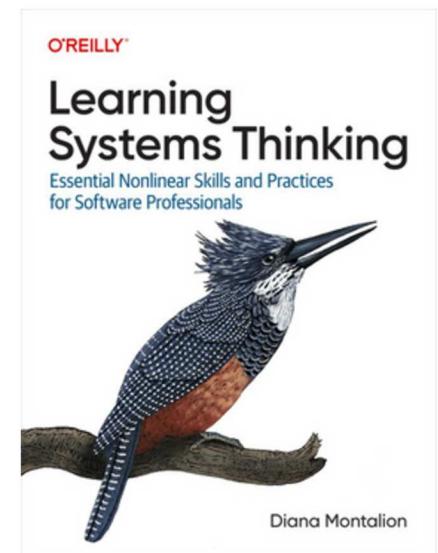
**Change in licence for load-bearing library  
300+ T1 services**

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# Knowledge

**“A sophisticated integration of data, information, and experience. It is the conceptual material we use to create laws and theorems; best practices and heuristics; strategies and predictions based on patterns.”**

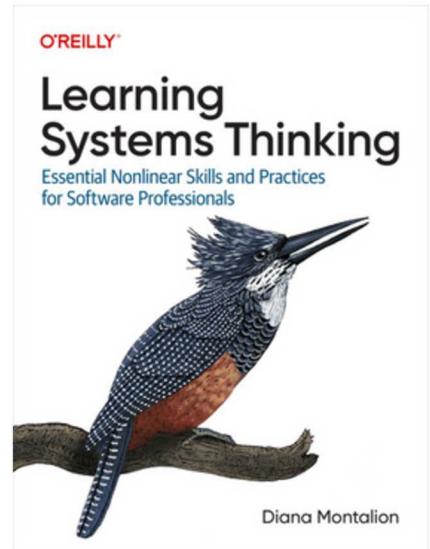


Learning Systems Thinking  
Diana Montalion

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# Wisdom



Learning Systems Thinking  
Diana Montalion

**“Our ability to discover true  
leverage points in the systems we  
inhabit and push them in a valuable  
direction.”**

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

Source: [Thinking For A Living: How to Get Better Performance and Results From Knowledge Workers.](#)  
Davenport, Thomas H. (2005).

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# Knowledge Stock & Flow



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

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“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

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Thus, again,  
the program text and its documentation  
has proved insufficient as a carrier of  
some of the most important design ideas.

• • •

The conclusion seems inescapable that at least with certain kinds of large programs, the continued adaptation, modification, and correction of errors in them, is essentially dependent on a certain kind of knowledge possessed by a group of programmers who are closely and continuously connected with them.

**Programming as Theory Building(1985) - Peter Naur**

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# What now?

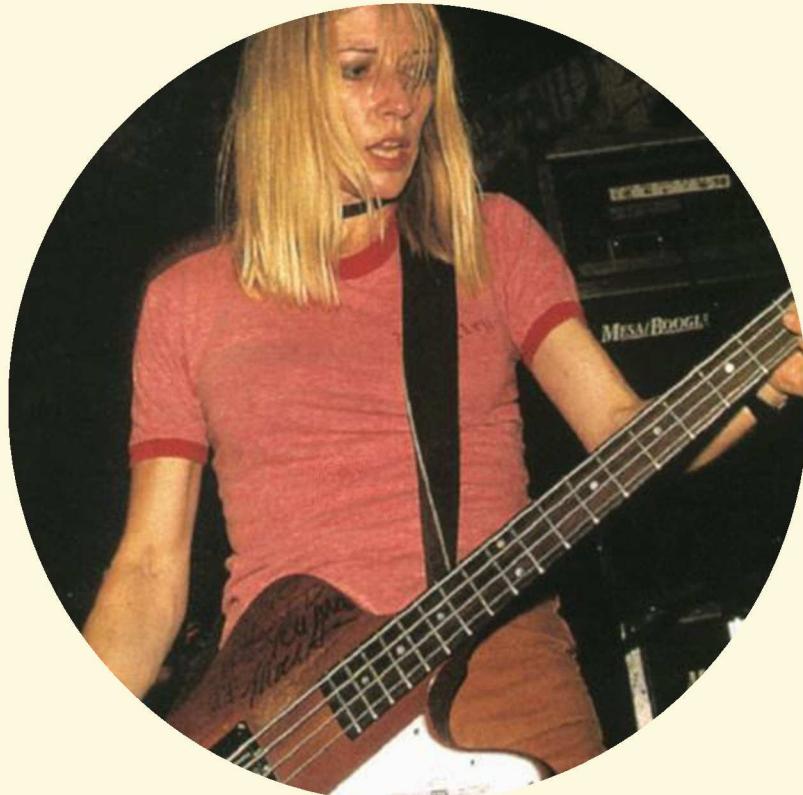


Understanding generates options



You are part of the  
socio-technical  
system

# Tools



**Solo**



**Karaoke**



**Concert**





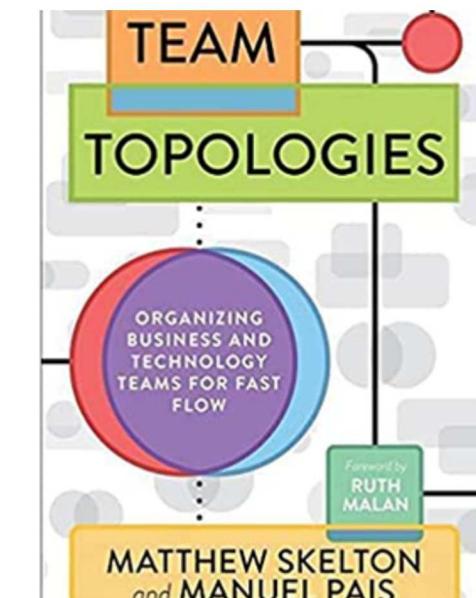
# Concert Sized Tools

## Architecture Advice Process



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Andrew Harmel-Law

## Team Topologies



Team Topologies  
Matthew Skelton and Manuel Pais

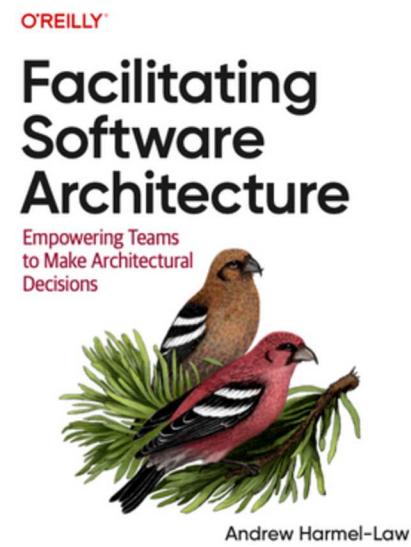


# Concert Sized Tools

## Architecture Advice Process

Anyone can make a decision but before they do so they **must**:

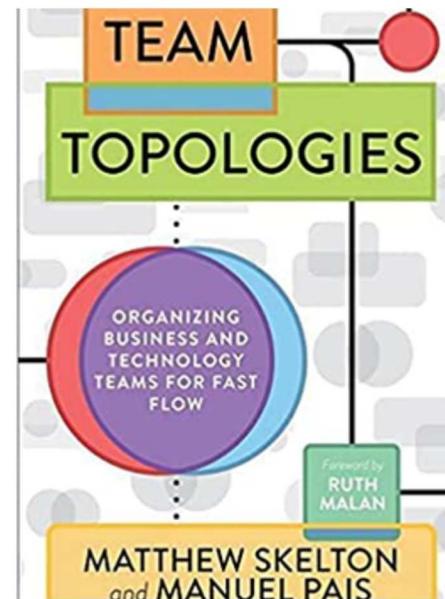
- Seek advice from all affected parties **and**
- from people with expertise on the matter



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# Concert Sized Tools



Team Topologies  
Matthew Skelton and Manuel Pais

## Team Topologies

A model for describing the organisation of teams.

- Four forms of teams
- Three modes of team interactions

Healthy interactions that provide a steady flow of valuable software.

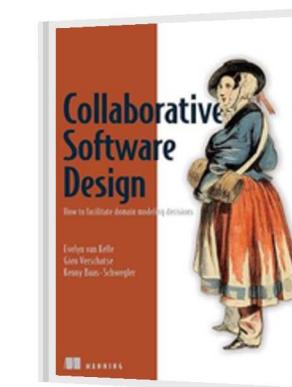


# Karaoke Sized Tools



## Bytesize Architecture Sessions

<https://bytesizearchitecturesessions.com/>



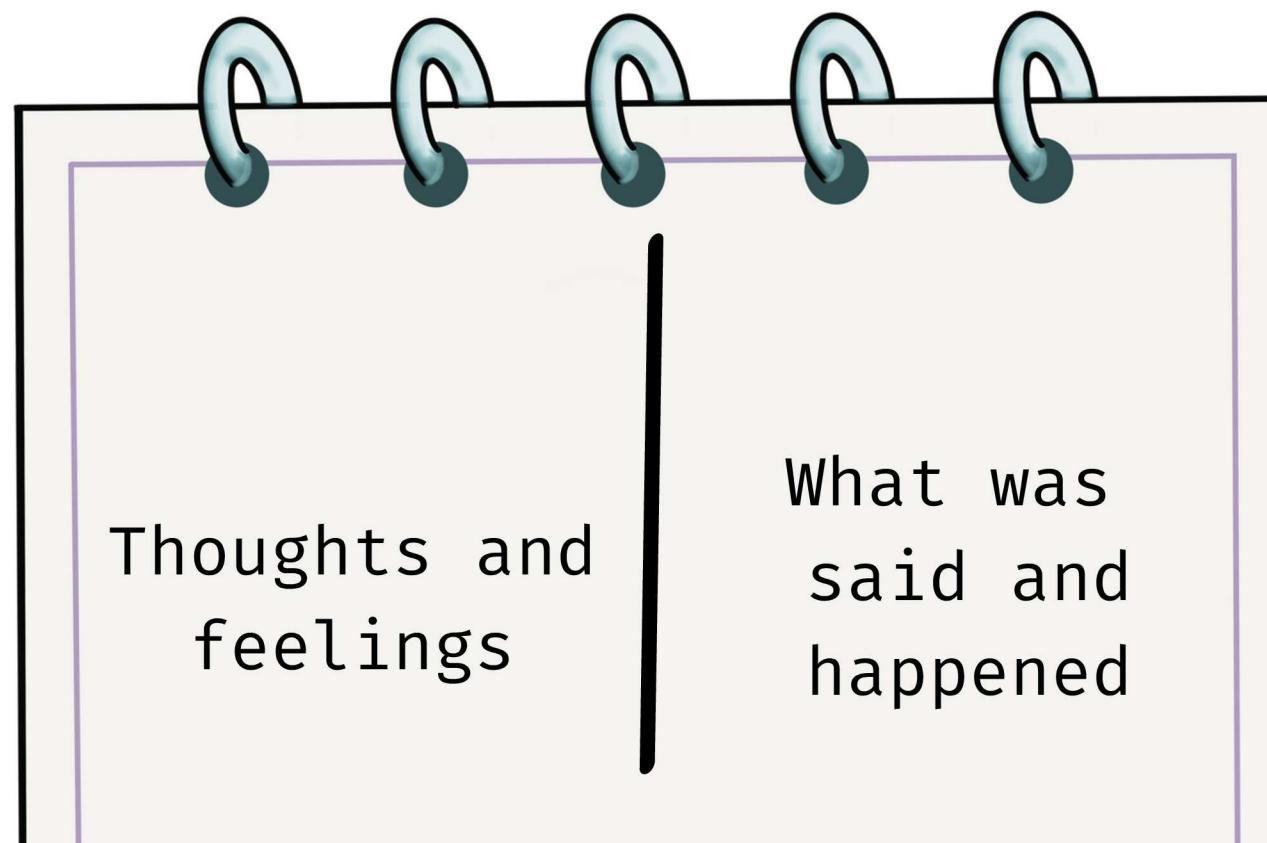
Collaborative Software Desing  
E. Kelle, G. Verschatse and K. Baas-  
Schwegler

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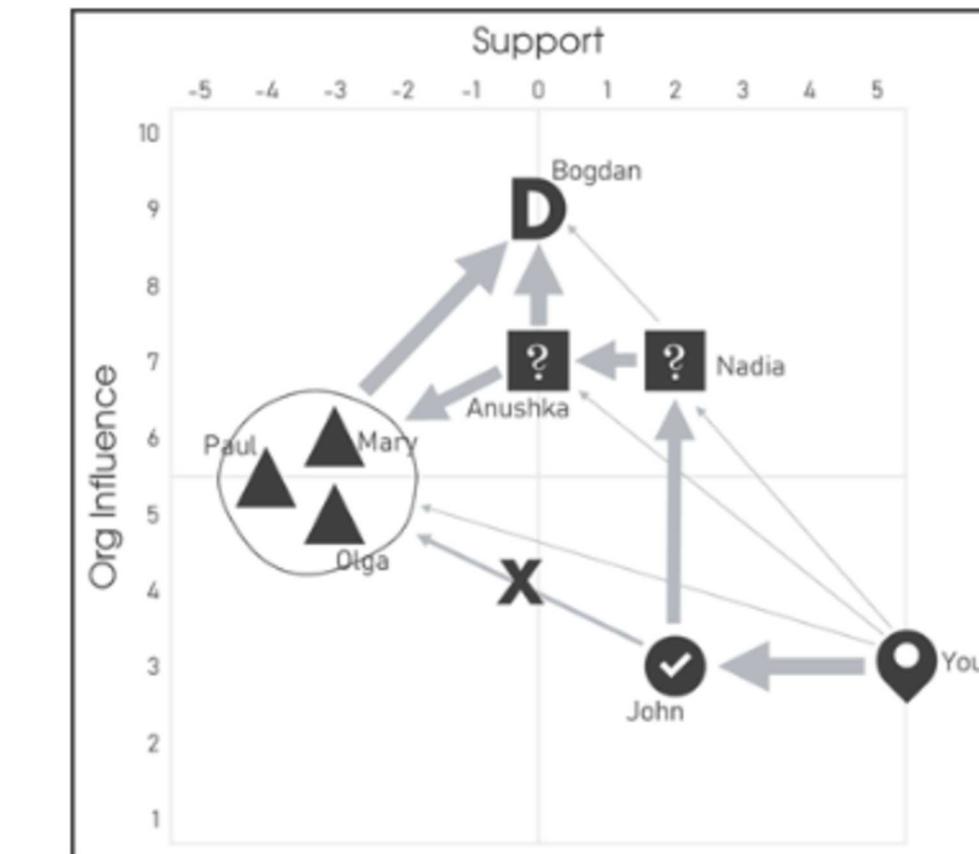


# Solo sized tools

## Left-hand column

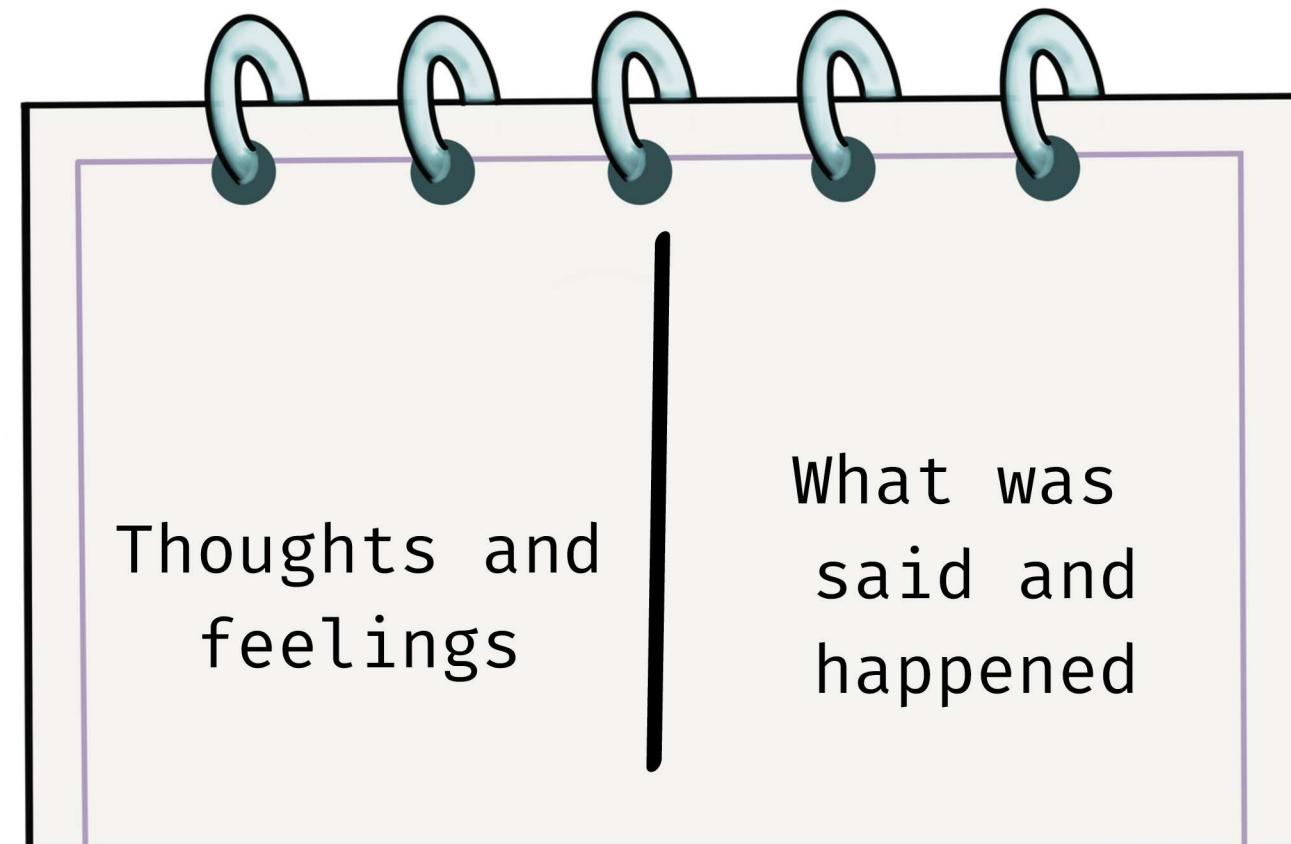


## Influence map





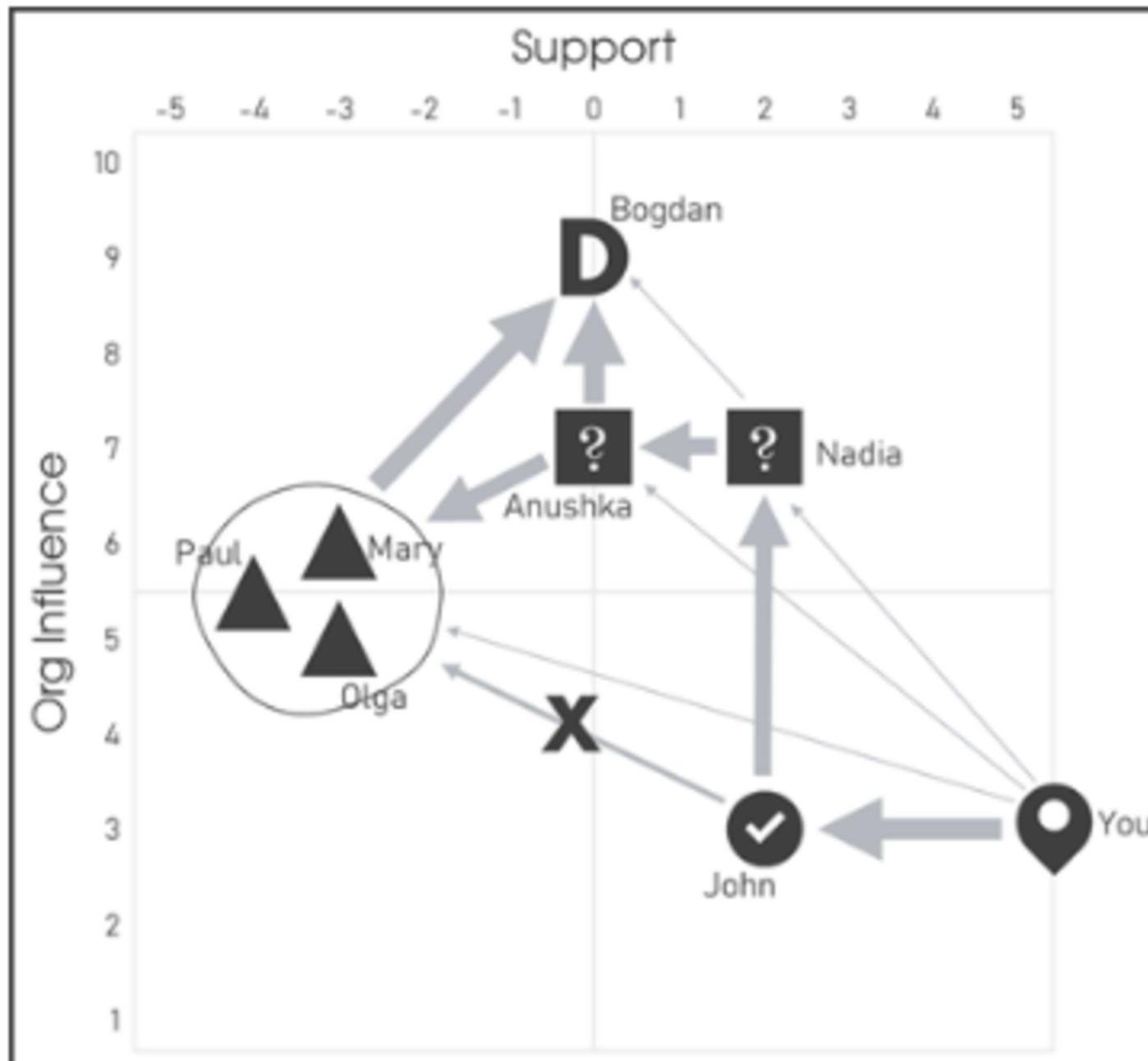
# Left-hand Column



<https://psdchallenge.psd.gov.sg/ideas/work-better/communicate-better-with-the-left-hand-column-technique>



# Influence Map

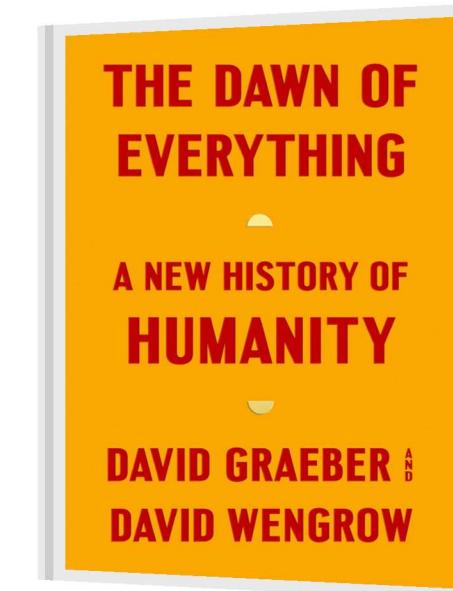
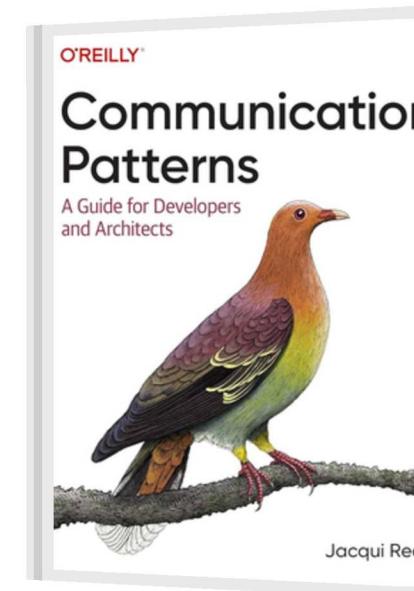
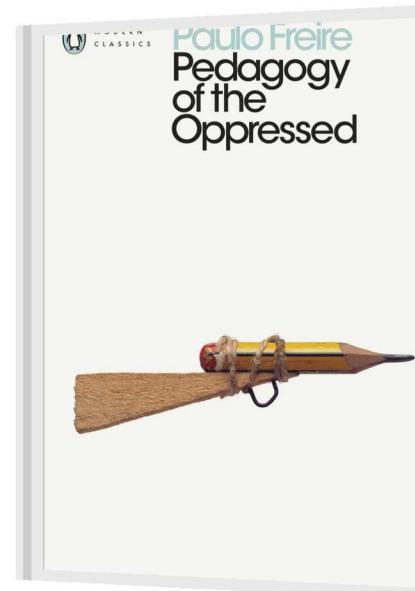
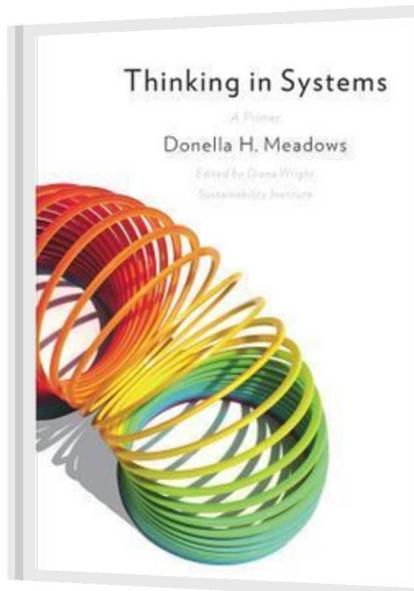
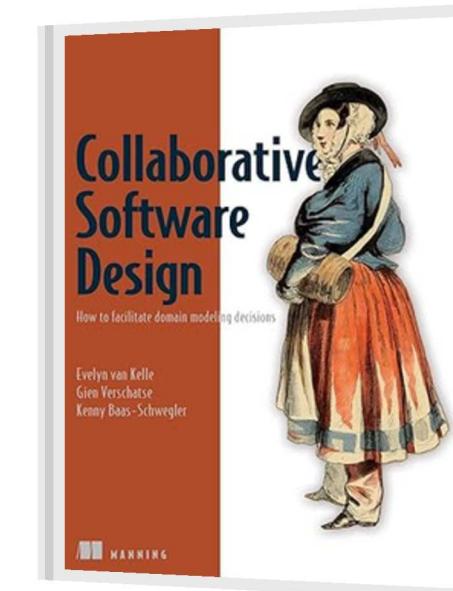
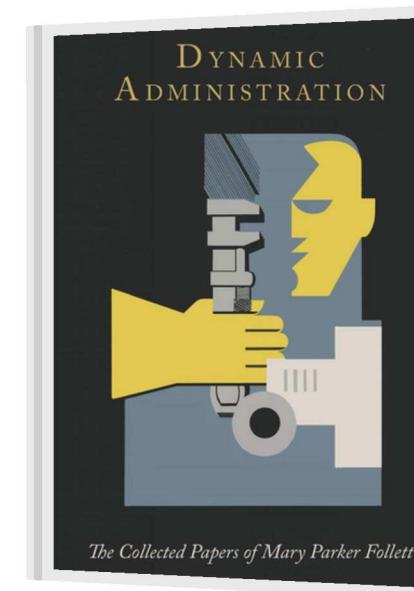
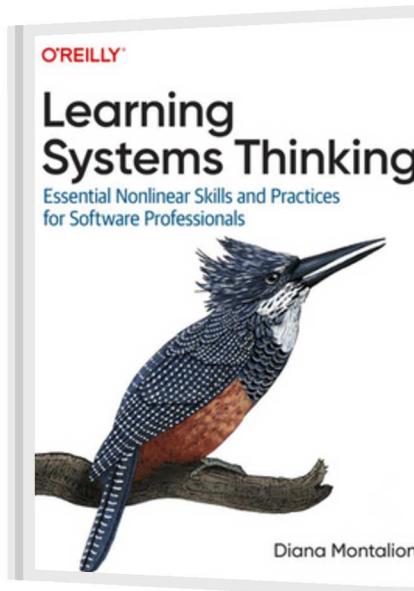


A tool that helps you  
understand networks of  
power

<https://charleslambdin.com/2021/12/14/influence-mapping-part-1/>

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# Making of a Decision Bookshelf

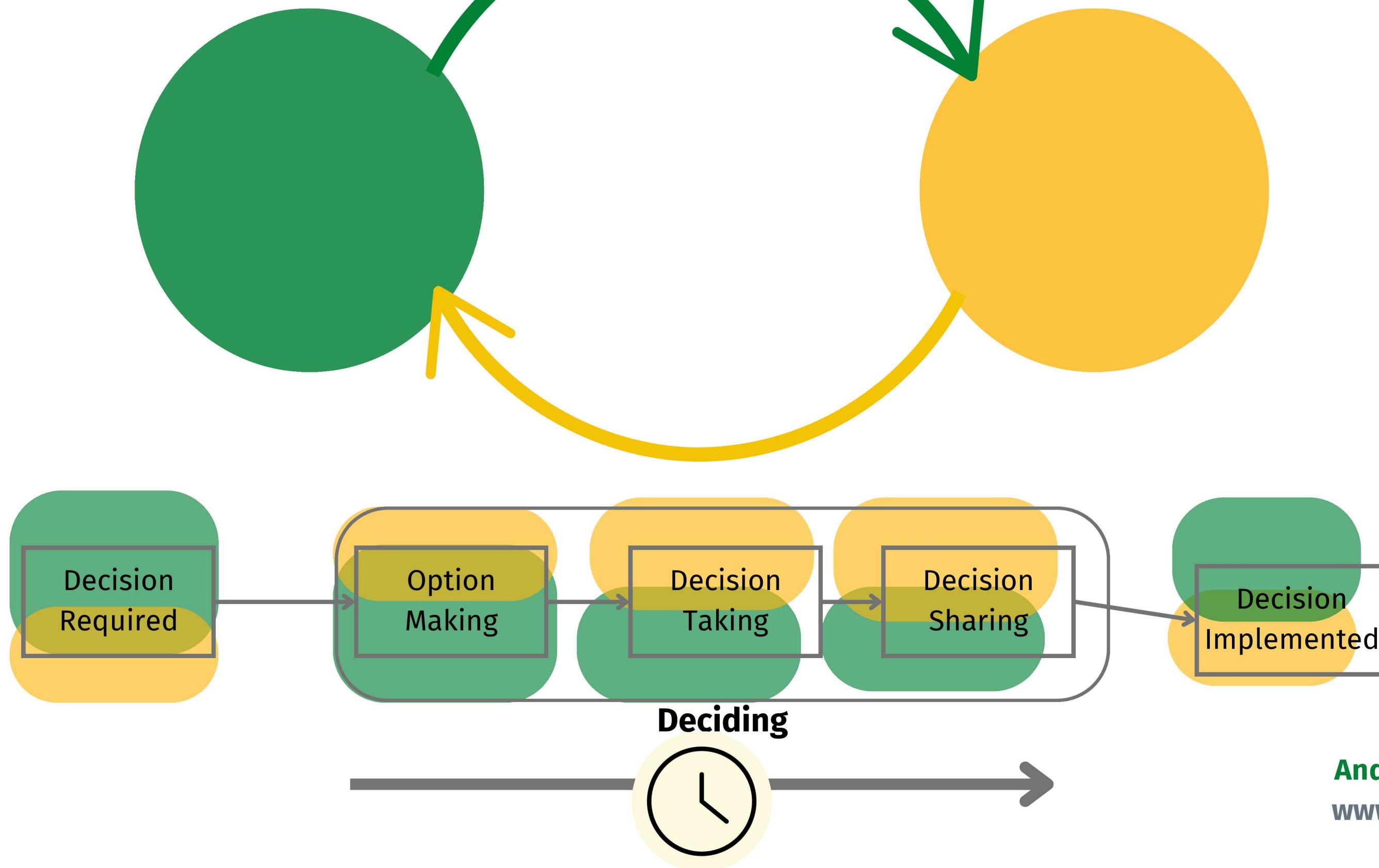


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# Knowledge

# Power





# Questions?



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