

The Making of a Decision



Andrea Magnorsky

ADA Conf - Melbourne 2024





About Andrea

Programmer and Creator of
Bytesize Architecture Sessions



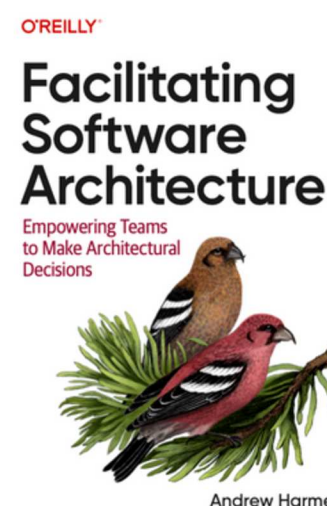
- Programming professionally since 2001
- Co-founded PC & Console Games Company in Ireland
- Contractor and Consulting since 2018
 - E-Commerce
 - Broadcasting media
 - Finance
- Recently moved to NZ and working with Atlassian

Andrea Magnorsky
www.roundcrisis.com



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

Architectural Decisions



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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www.roundcrisis.com



Agenda

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



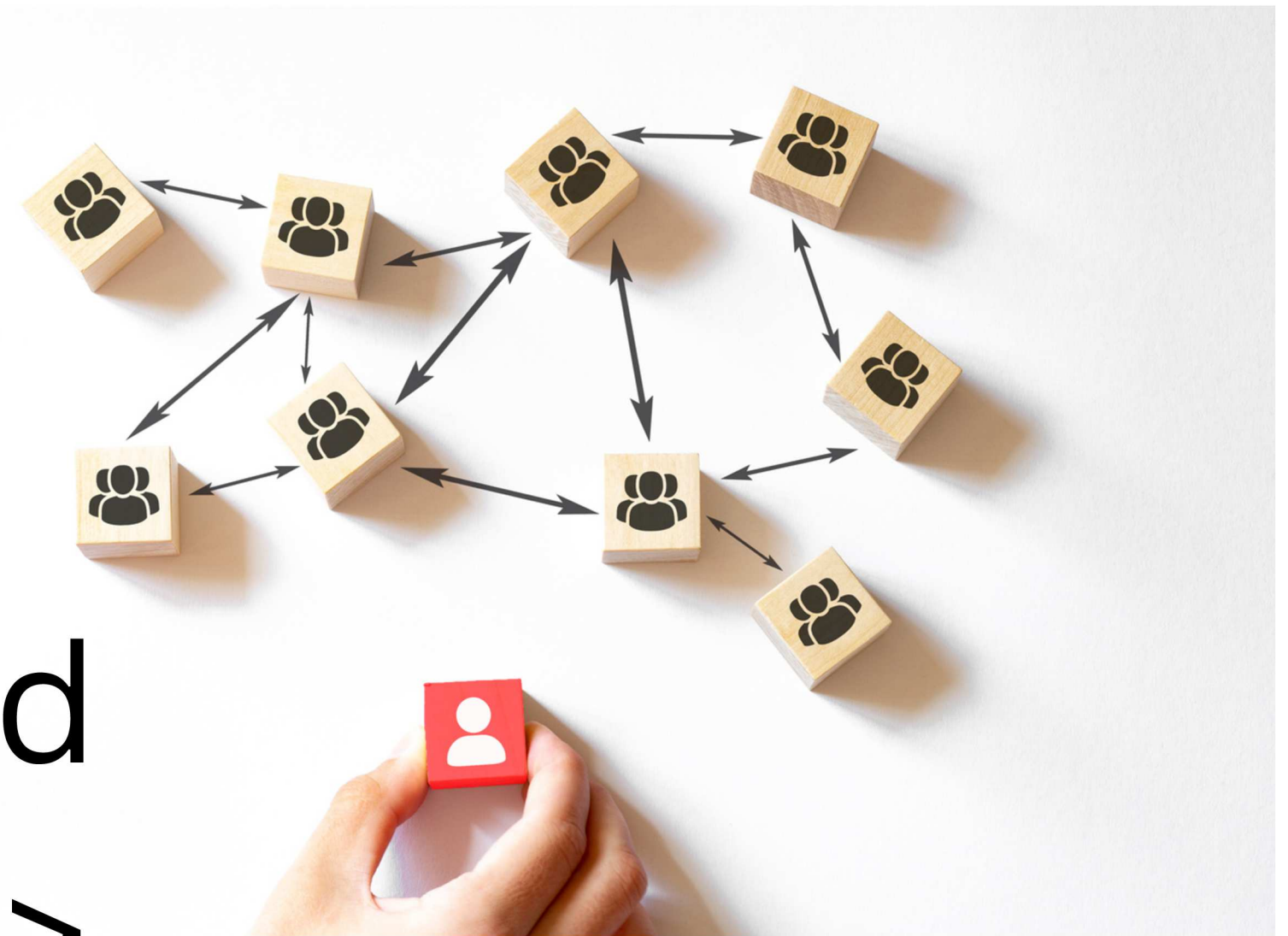


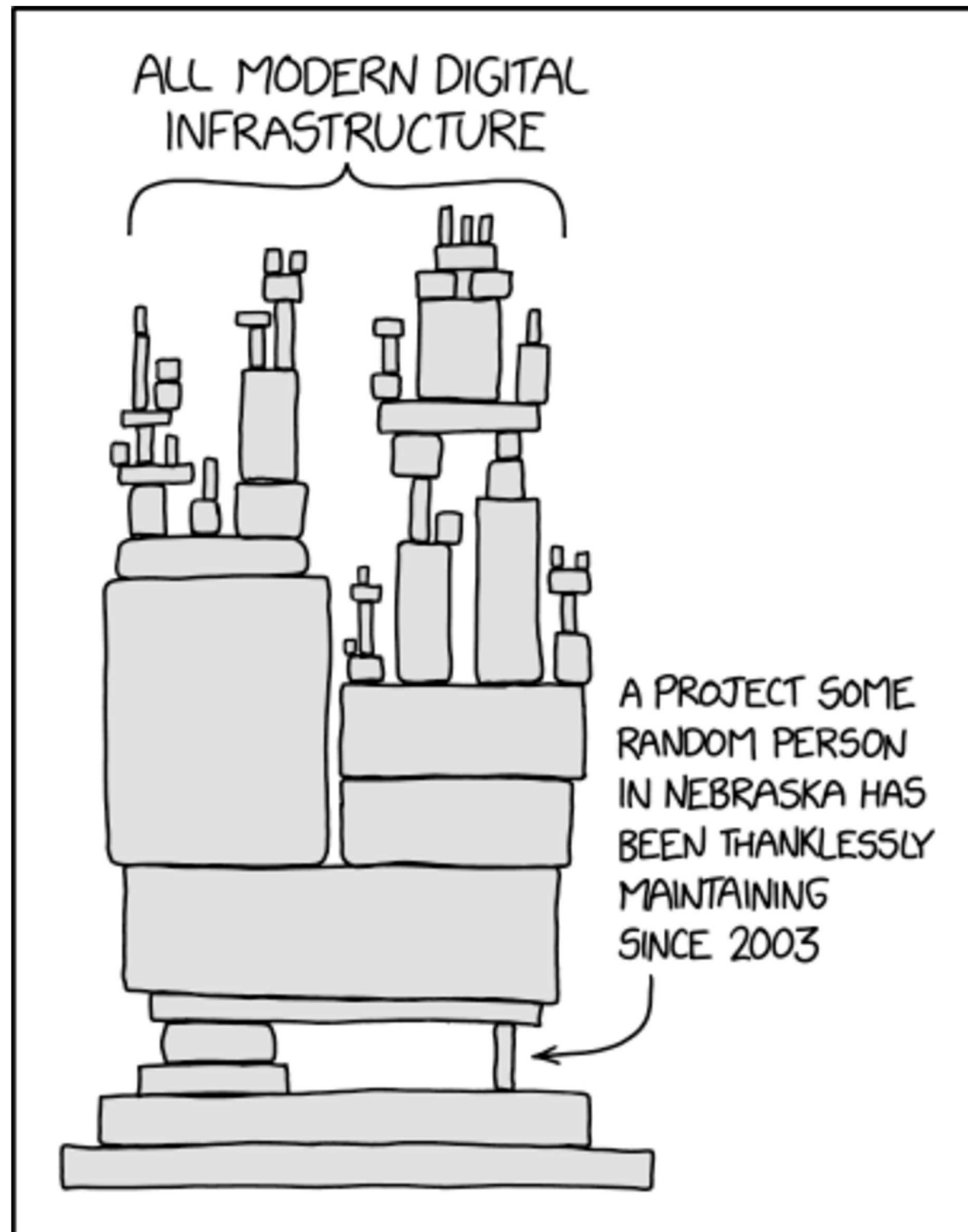
Example Scenarios

A decorative horizontal bar with a green segment on the left and a yellow segment on the right, located below the title.



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

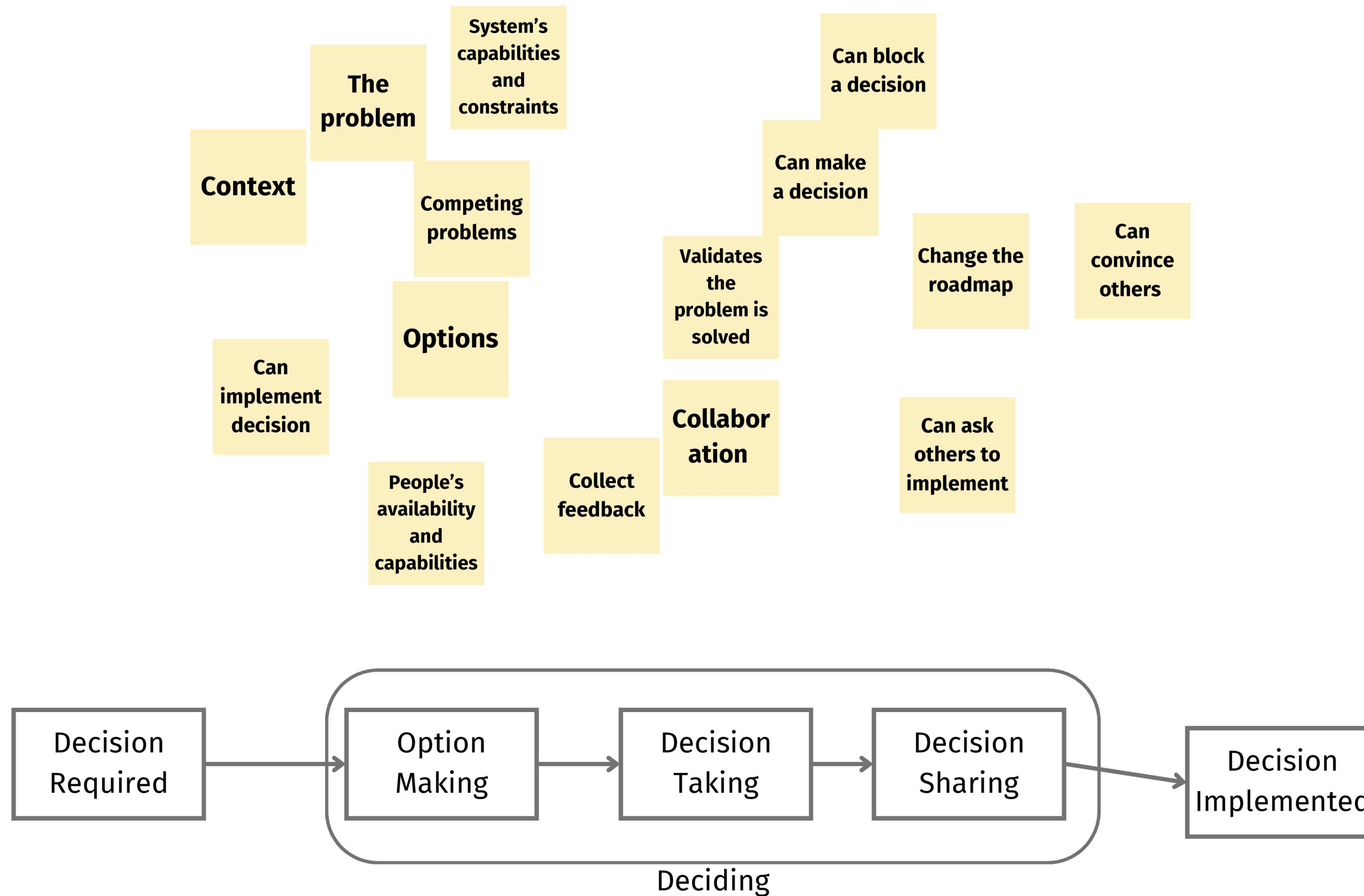


**An incident resolution that
is affecting decision making
years after the event.**



Anatomy of a Decision

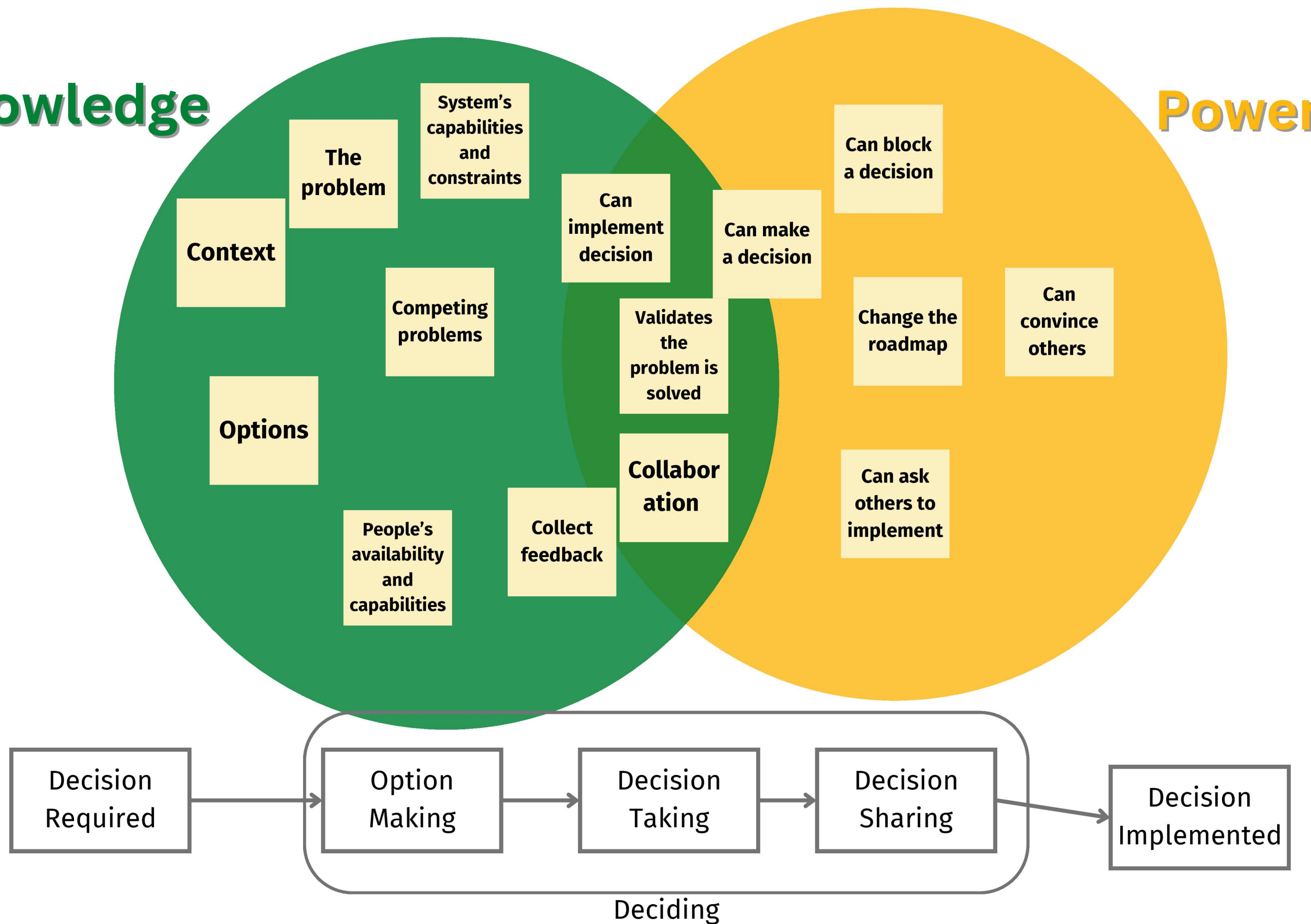
“Ingredients” of a decision

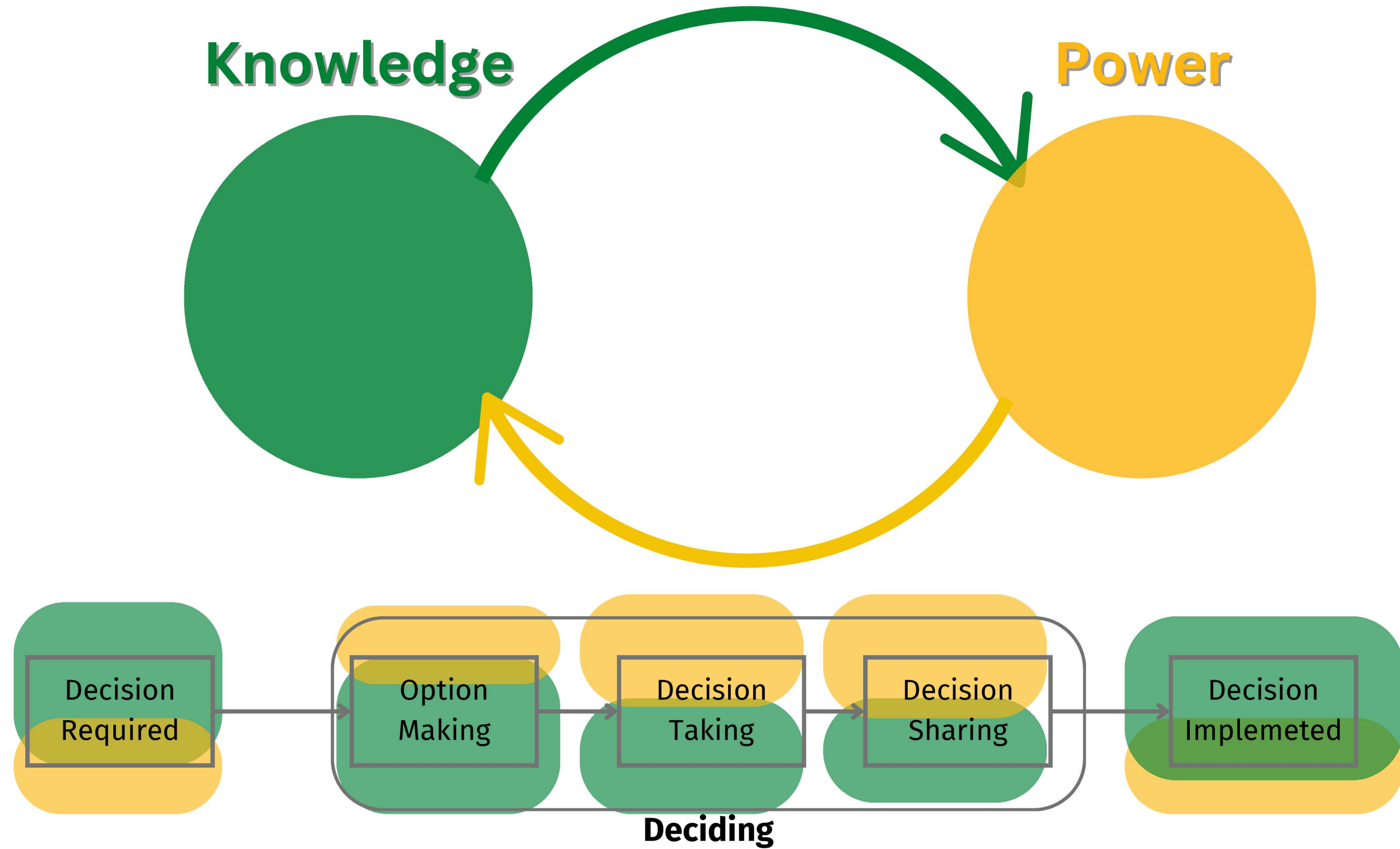




Knowledge

Power







Power





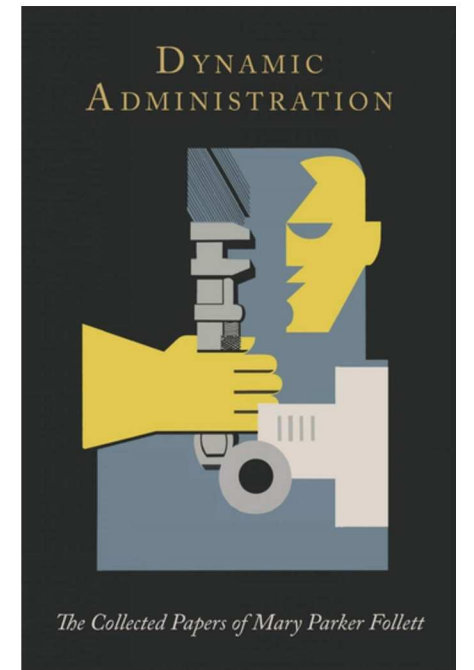
Power-With



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.”

Highly recommended



Dynamic Administration: The
Collected Papers of Mary
Parker Follett



Power-Over



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

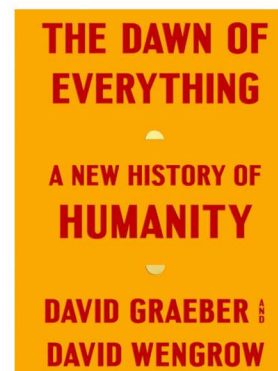
Sources Of Power



Authority

Charisma

**Access to
Knowledge**



The Dawn of Everything
D. Graeber and D. Wengrow

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www.roundcrisis.com



Laws Of Power

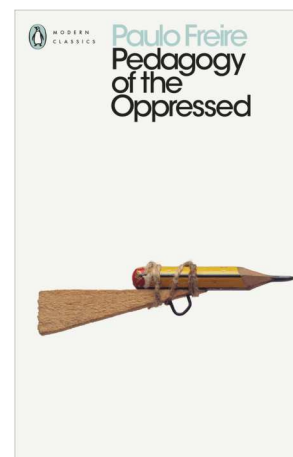


Dynamic

Like water

**Power begets
more power**

Related read



Pedagogy of the Oppressed
Paulo Freire

Source: How to understand power - Eirc Liu

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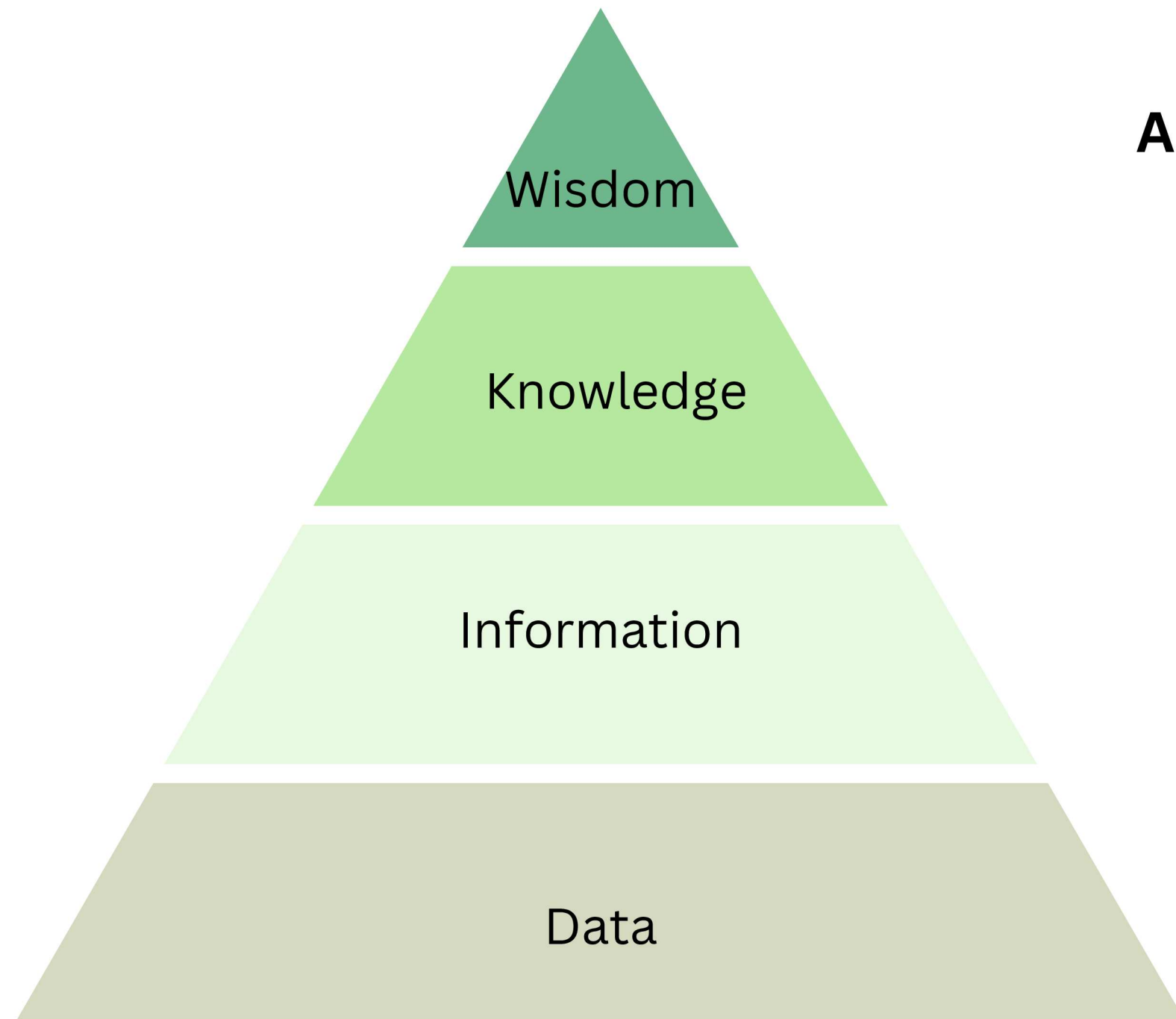




Know¹ledge



DIKW Pyramid



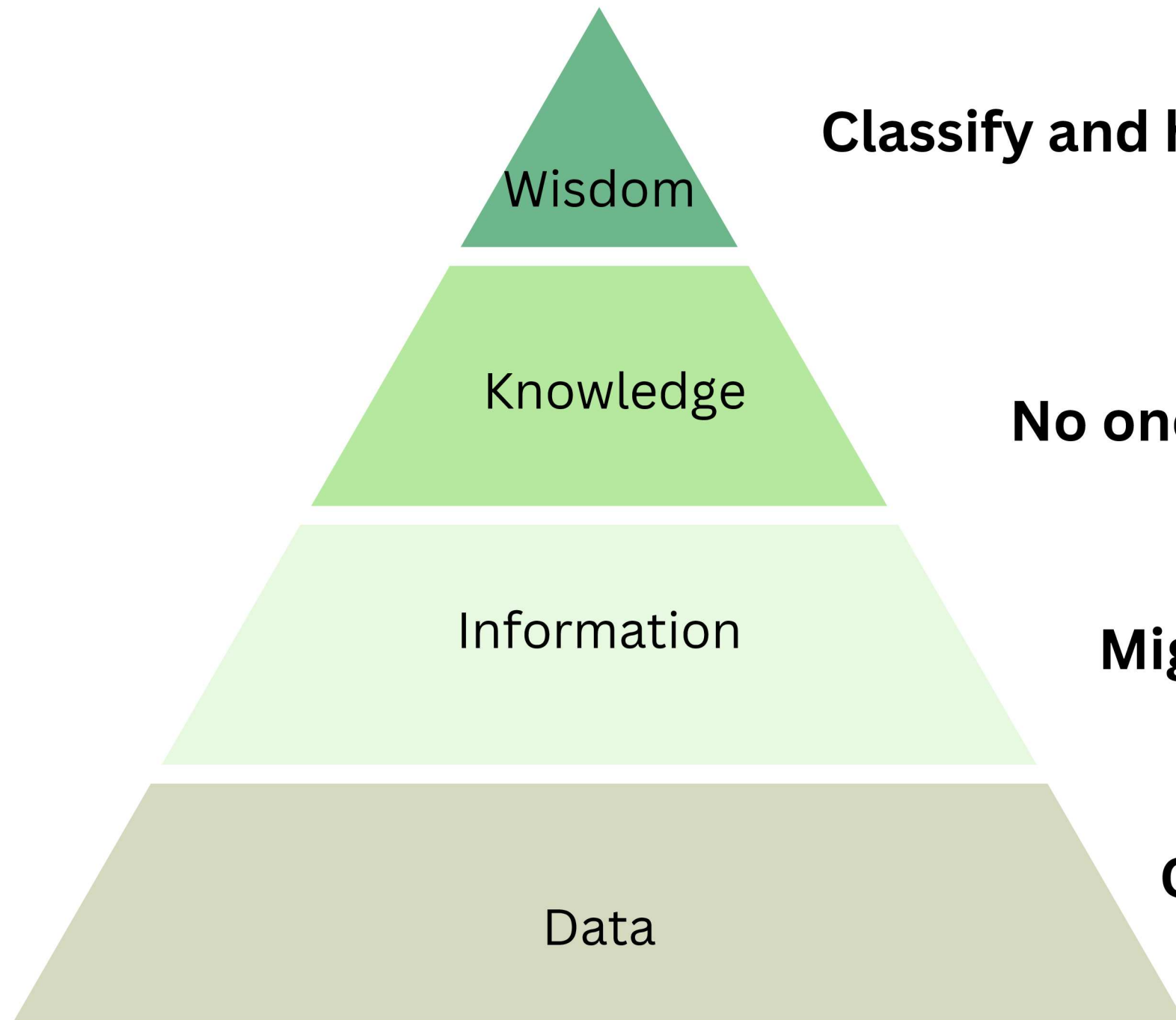
Application of Knowledge over time 

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

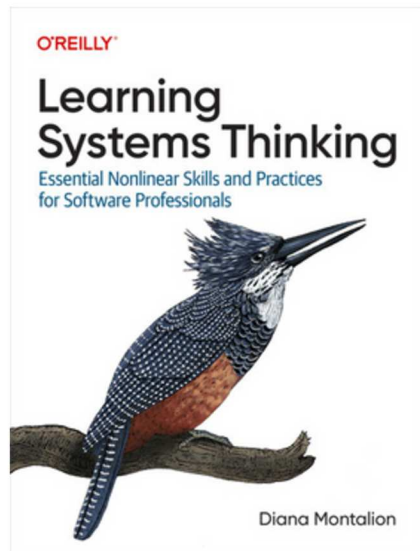
Migration paths to alternative libraries trialed.

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

Knowledge

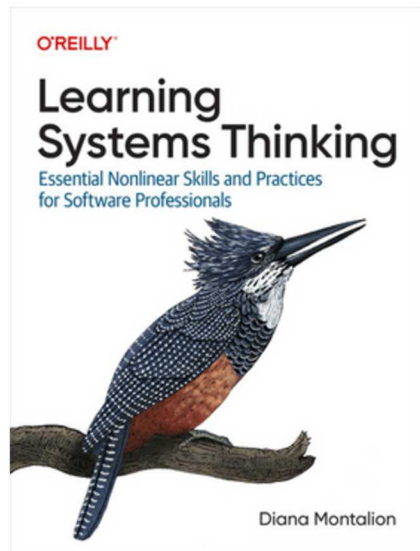


“A sophisticated integration of data, information, and experience. It is the conceptual material we use to create laws and theorems; best practices and heuristics; strategies and predictions based on patterns.”



Learning Systems Thinking
Diana Montalion

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.”



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**



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





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 pro-
grams, the continued adaptation, modifi-
cation, and correction of errors in them, is
essentially dependent on a certain kind of
knowledge possessed by a group of pro-
grammers who are closely and continu-
ously connected with them.

Programming as Theory Building(1985) - Peter Naur





What now?



Understanding generates options



You are part of the
socio-technical
system

Tools



Solo



Karaoke



Concert



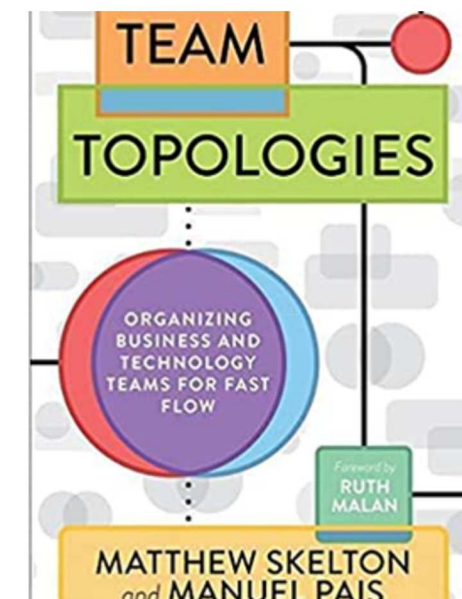
Concert Sized Tools

Architecture Advice Process



Facilitating Software Architecture
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

O'REILLY

Facilitating Software Architecture

Empowering Teams to Make Architectural Decisions

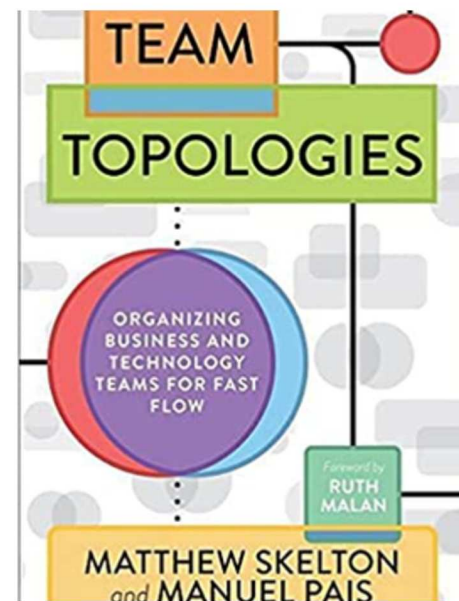


Andrew Harmel-Law

Facilitating Software Architecture
Andrew Harmel-Law



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.

<https://teampologies.com/>

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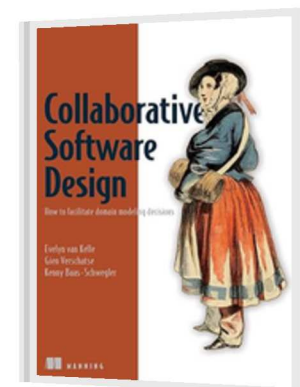


Karaoke Sized Tools



Bytesize Architecture Sessions

<https://bytesizearchitecturesessions.com/>



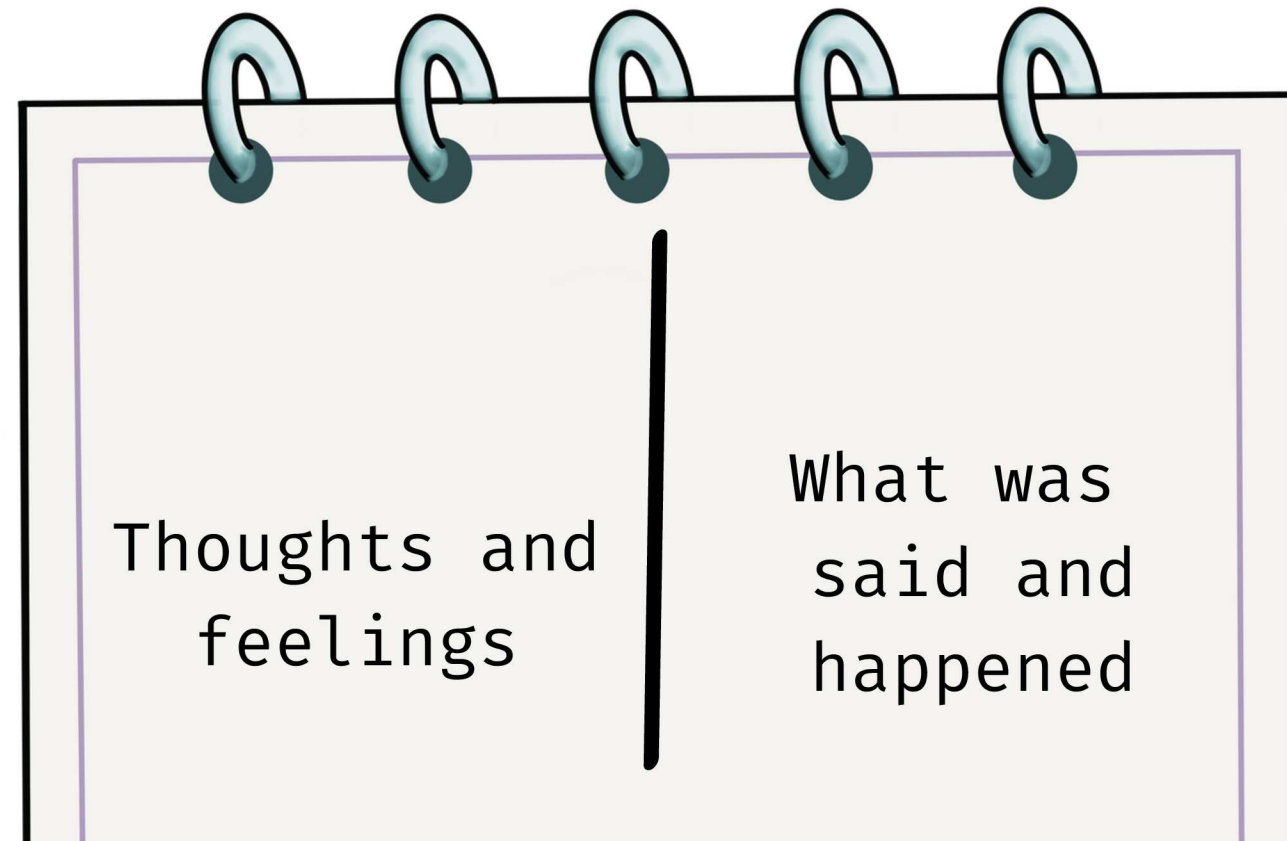
Collaborative Software Design
E. Kelle, G. Verschatse and K. Baas-
Schwegler

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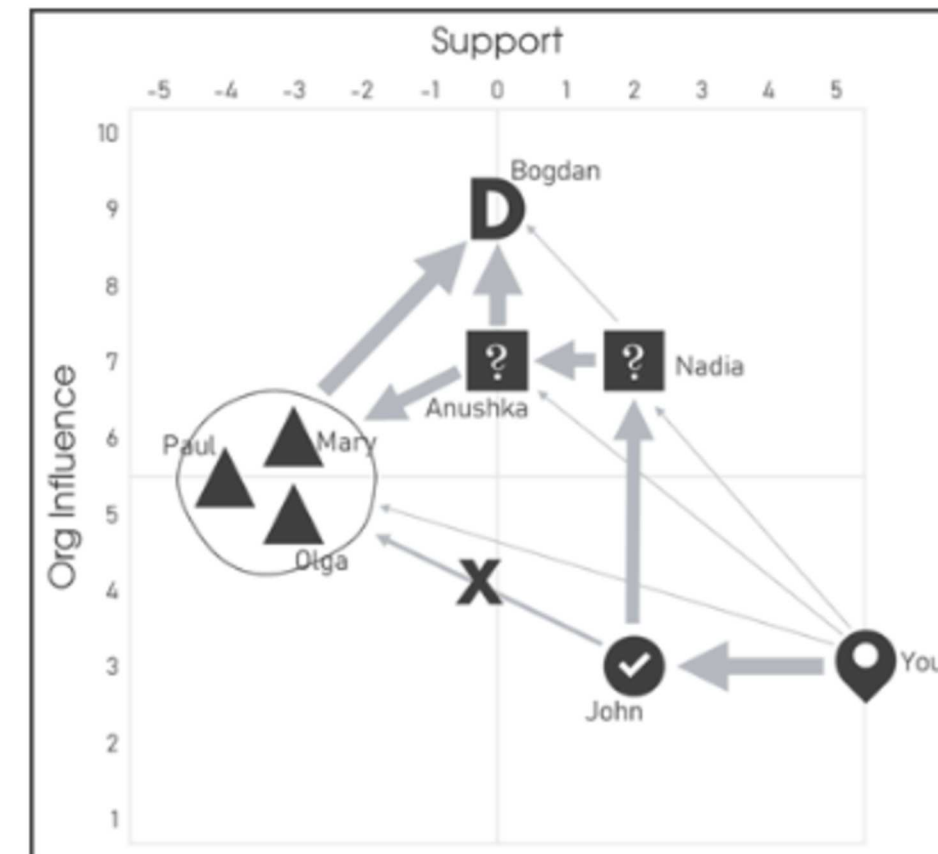


Solo sized tools

Left-hand column

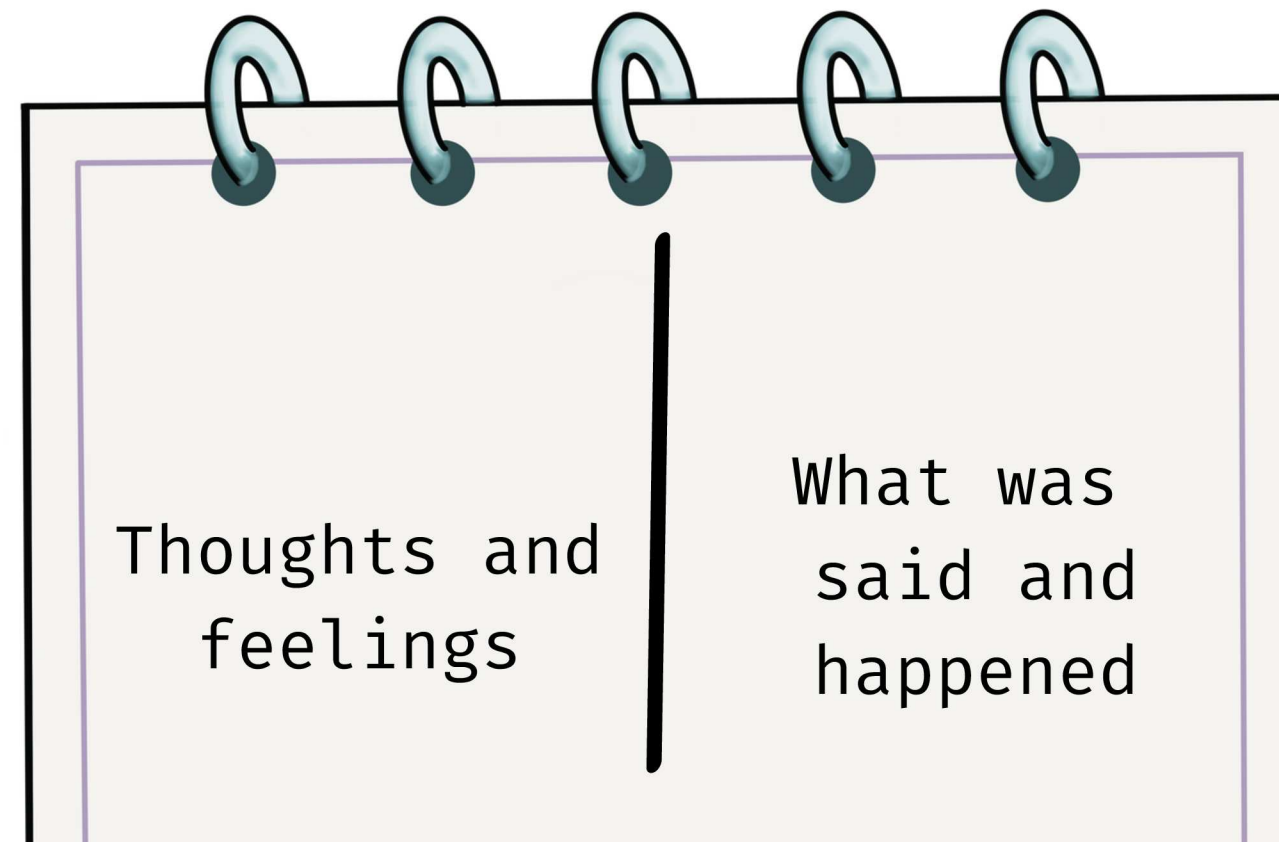


Influence map





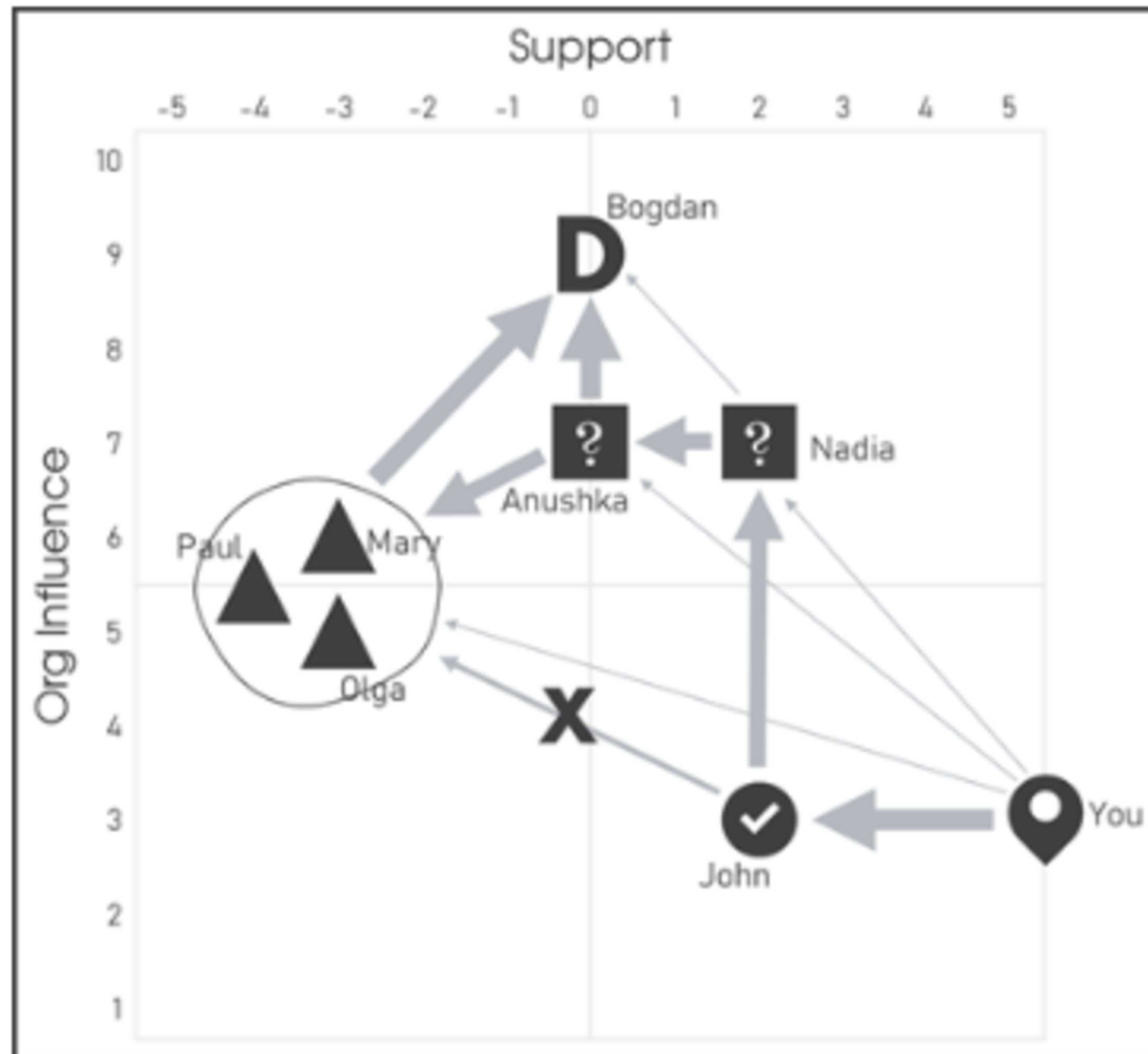
Left-hand Column



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



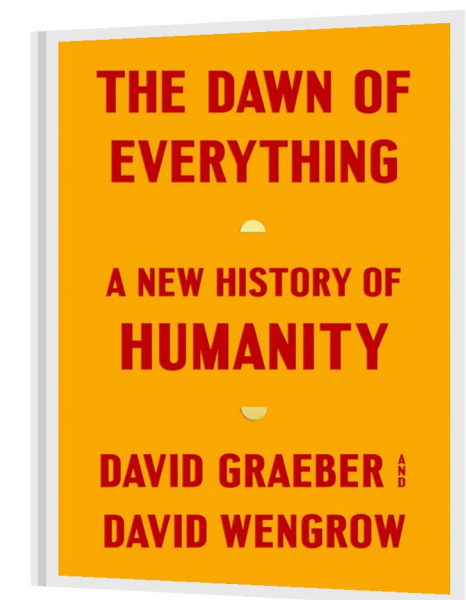
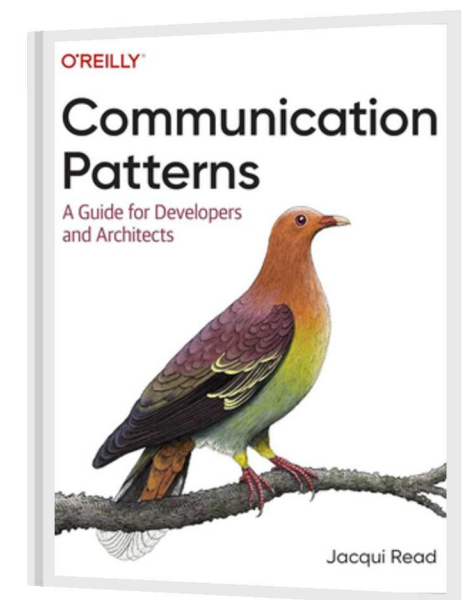
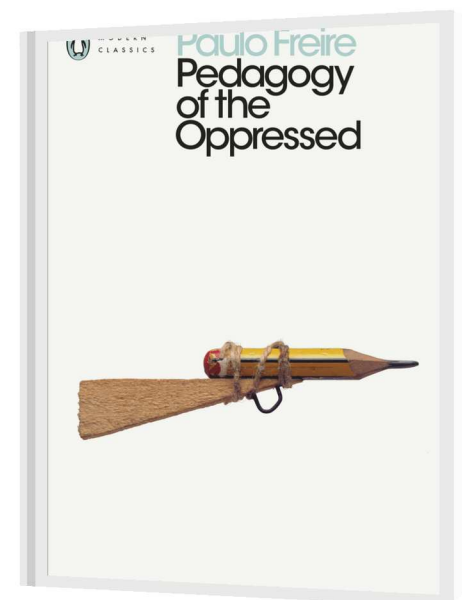
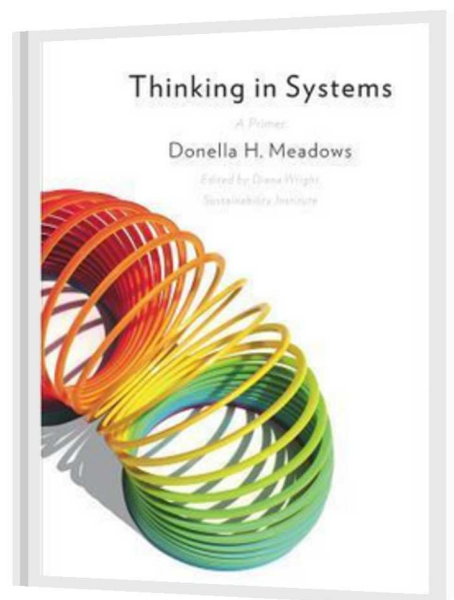
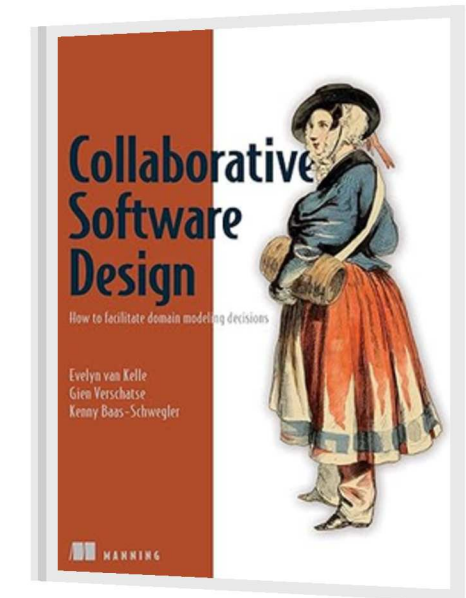
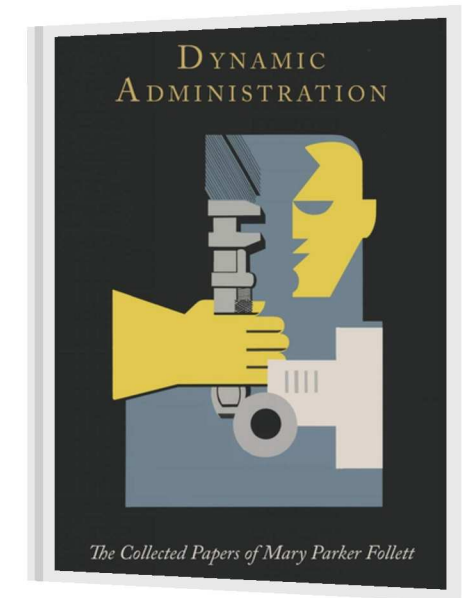
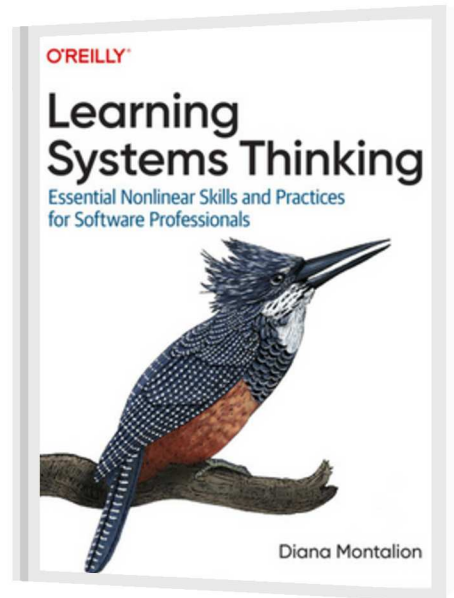
Influence Map

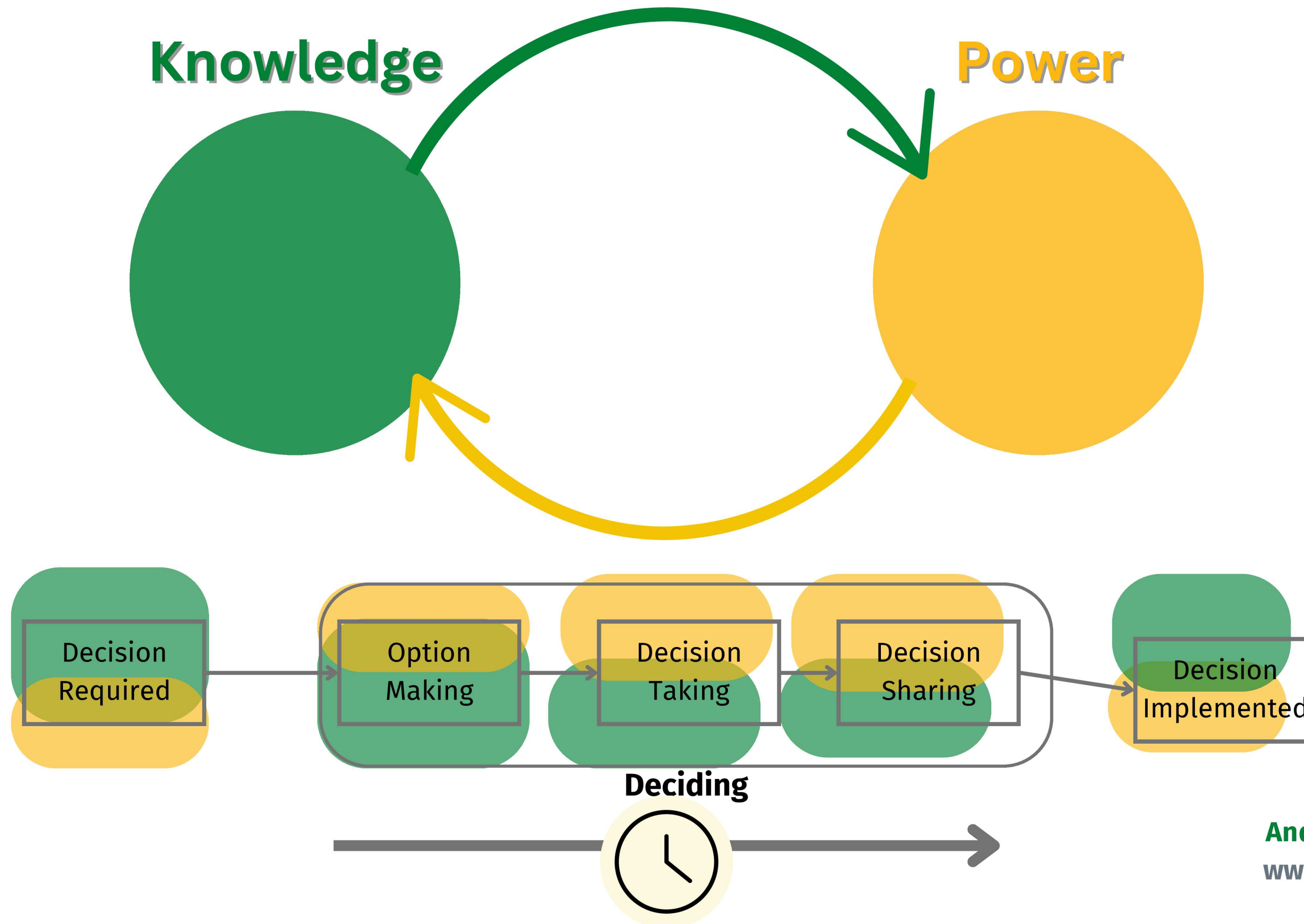


<https://charleslambdin.com/2021/12/14/influence-mapping-part-1/>

A tool that helps you understand networks of power

Making of a Decision Bookshelf







Questions?

