EVERYDAY CRITICAL THINKING FOR CSOS

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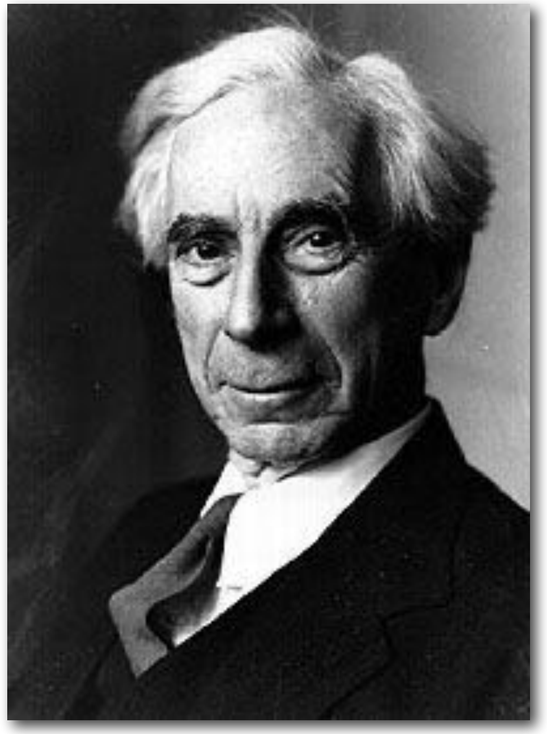
HI, I’M EILEEN

I’m a designer in civic tech.

Program Director at a design nonprofit, Simply Secure

Previously: Open Knowledge Foundation Germany, Code for Germany, Prototype Fund

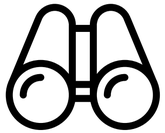
Previously previously: mathematical logic & philosophy



"Not to be absolutely certain is, I think, one of the essential things in rationality."

—Bertrand Russell

CRITICAL THINKING



Analysis

Understand and evaluate information, take things apart and look at it from a different perspective.

Open-Mindedness

Allow new evidence to change you mind, and actively seek out different views.

Research

Conduct research to look for a solution. Look for reference materials and online sources or just ask people.

Communication

Summarise your ideas in a way that is simple and accessible to other people.

Problem Solving

Understand what the problem is, and address the problem you can solve.

Creativity

Connect dots from different domains and disciplines when you consider solutions.

TOPICS

WHY CRITICAL THINKING?

LOGICAL FALLACIES

COGNITIVE BIASES

STRATEGIES

EXAMPLES FROM THE CIVIL SOCIETY SECTOR

WHY CRITICAL THINKING?

Make sure you’re right

Humans are funny! We have lots of cognitive biases that cloud our judgment. Critical thinking can help you be less wrong.

Bad actors

Fake news, false advertising, manipulative business practices — learning to evaluate information is a useful and practical skill.

Develop new ideas

Critical thinking helps you develop new ideas, arguments, and strategies that can have a huge impact in your space.

Independent decision-making

There are situations where you won’t have rules or guidance for decision-making! Critical thinking helps you make your own rules and guidance.

WHAT IS AN ARGUMENT?

If A, then B — **All men are mortal.**

A — **Socrates is a man.**

PREMISE

B — **Socrates is mortal.**

CONCLUSION

A *valid* argument is one where if the premises are true, it is impossible for the conclusion to be false.

WHAT IS AN ARGUMENT?

If A, then B

All men are mortal.

not A

Super Man is not a man.

PREMISE

---

not B

Super Man is not mortal.

CONCLUSION

An *invalid* argument is one where if the premises are true, it is possible for the conclusion to be false.

WHAT IS AN ARGUMENT?

If A, then B — **All men are mortal.**

A — **Donald Duck is a man.** (FALSE!)

PREMISE

B — **Donald Duck is mortal.** (TRUE OR FALSE!)

CONCLUSION

A *sound* argument is a valid argument where the premises are true.

But there’s more!

Our thinking and reasoning is not just governed by formal logic — alas!

There are many informal mistakes we make *all the time.*

SOME LOGICAL FALLACIES

False cause

Incorrectly identifying the cause of something. For example, Alice eats an apple every day. One day she skipped her apple, and her laptop broke. So she never skips her apple again! (More commonly known by the phrase “correlation does not equal causation.”)

SOME LOGICAL FALLACIES

Straw man

Taking an argument and misrepresenting it so that it's easier to attack. For example, let's say Bob is advocating that sporks should be the new standard for silverware because they're more efficient. Alice responds that she's shocked Bob would want to outlaw spoons and forks, and put millions out of work at the fork and spoon factories.

SOME LOGICAL FALLACIES

Begging the question

Begging the question is a type of circular argument where someone includes the conclusion as a part of their reasoning. For example, Bob says, “Ghosts exist because I saw a ghost in my closet!"
Rather than assuming that ghosts exist from the outset, Bob should have used evidence and reasoning to try and prove that they exist.

SOME LOGICAL FALLACIES

False dilemma

A situation is presented as being an either/or option when, in reality, there are more possible options available than just the chosen two. Here's an example: Alice rings the doorbell but Bob doesn't answer. She then thinks, "Oh, Bob must not be home."

It gets worse!

If only fallacies were limited to logical ones!

We often believe what we want to believe. Our brains sometimes optimise for speed rather than accuracy.

SOME COGNITIVE BIASES

Confirmation bias

The tendency to search for or interpret information in the way that confirms one’s preexisting beliefs, leading to statistical errors. When people would like a certain idea to be true, they end up believing it to be true. For example, Alice believes that Earth is flat, and only searches for that on Google.

SOME COGNITIVE BIASES

Actor observer bias

The tendency to attribute our actions to external influences and other people's actions to internal ones. When Alice is too tired to work, it’s because her medicine is making her sleepy. But when she sees Bob slacking off, it’s because he’s lazy. We interpret behaviour differently depending on whether we are the actor or observer in a situation.

SOME COGNITIVE BIASES

The IKEA effect

The tendency to attach a higher value to things we help create. Let’s say Bob makes some cupcakes and they don’t turn out beautifully. But to Bob, because he made the cupcakes himself, he’s more attached to them than store-bought cupcakes.

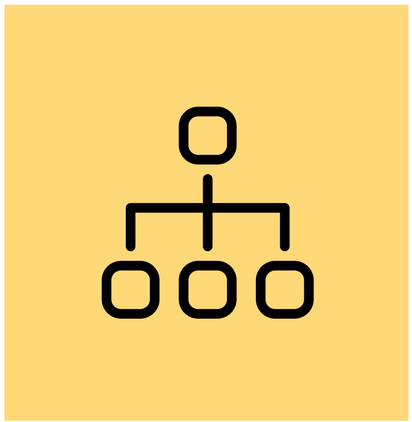
SOME COGNITIVE BIASES

Right side bias

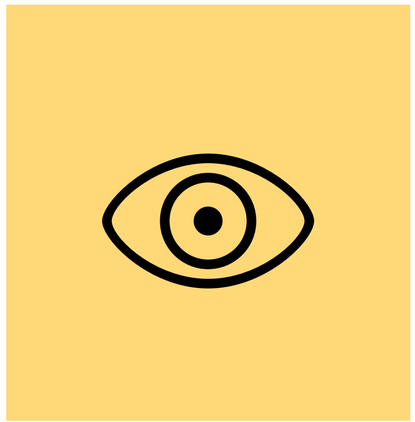
The tendency to prefer things *on our right side*. If Alice sees some dresses in a store, she is more likely to buy one presented on her right, especially if she is right-handed.

https://www.theatlantic.com/health/archive/2016/03/handedness-rightie-leftie/472803/

STRATEGIES



Assess arguments



Switch perspectives

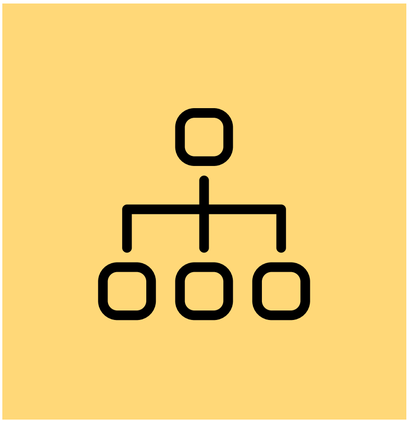
Challenge assumptions

Assess arguments

1

Look at an argument. Evaluate whether or not the general form of the argument is valid by replacing the premises with other (true) premises and see if the conclusion is still true.

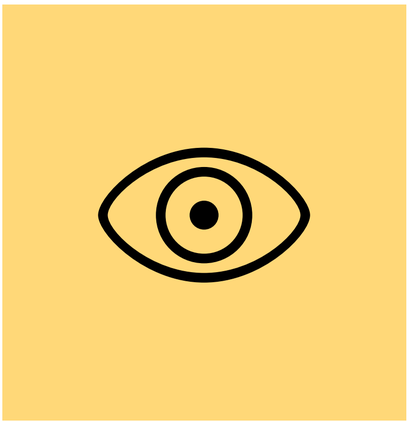
Familiarise yourself with logical fallacies and identify real-world examples.



Switch perspectives

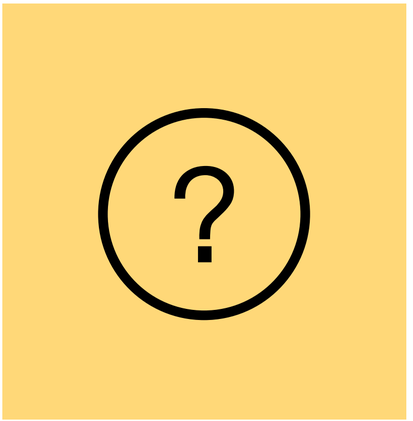
2

Sometimes it helps to step outside yourself and pretend you're helping someone else. We're able to think more objectively in third person—that's why it's easier to give advice than it is to receive it.



Challenge assumptions 3

When people present facts and opinions, ask: how might this be wrong? Skepticism is brainstorming different ways and scenarios a piece of information could be wrong. What's the source of this information? What are underlying beliefs and assumptions?



TOPICS

WHY CRITICAL THINKING?

LOGICAL FALLACIES

COGNITIVE BIASES

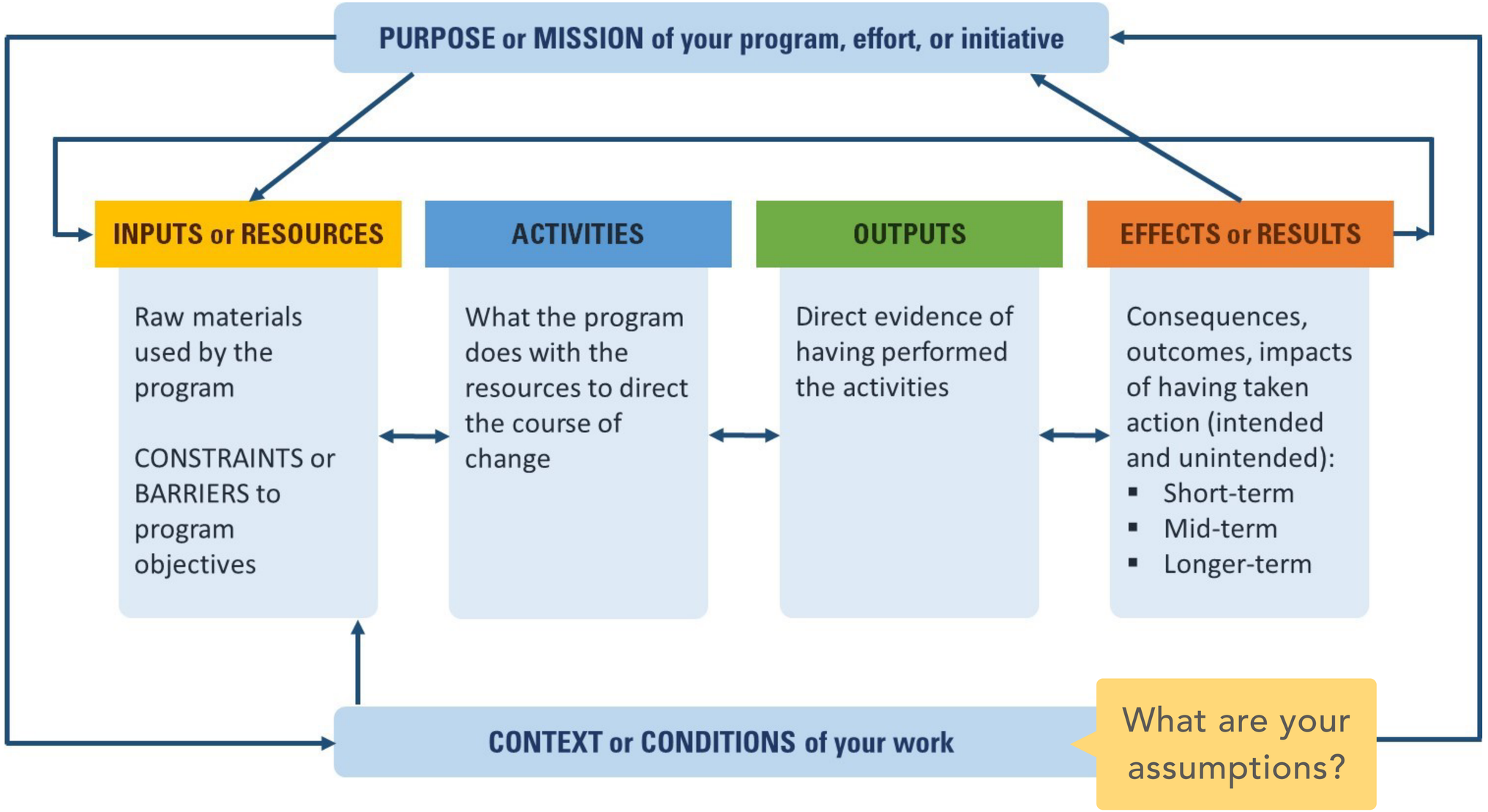
STRATEGIES

EXAMPLES FROM THE CIVIL SOCIETY SECTOR

Increase impact

Use logic models to design your program activities

LOGIC MODEL



What's missing?

What's unnecessary?

What's in conflict?

What's weak?

What are your assumptions?

http://peersforprogress.org/resource-guide/planning-your-evaluation/

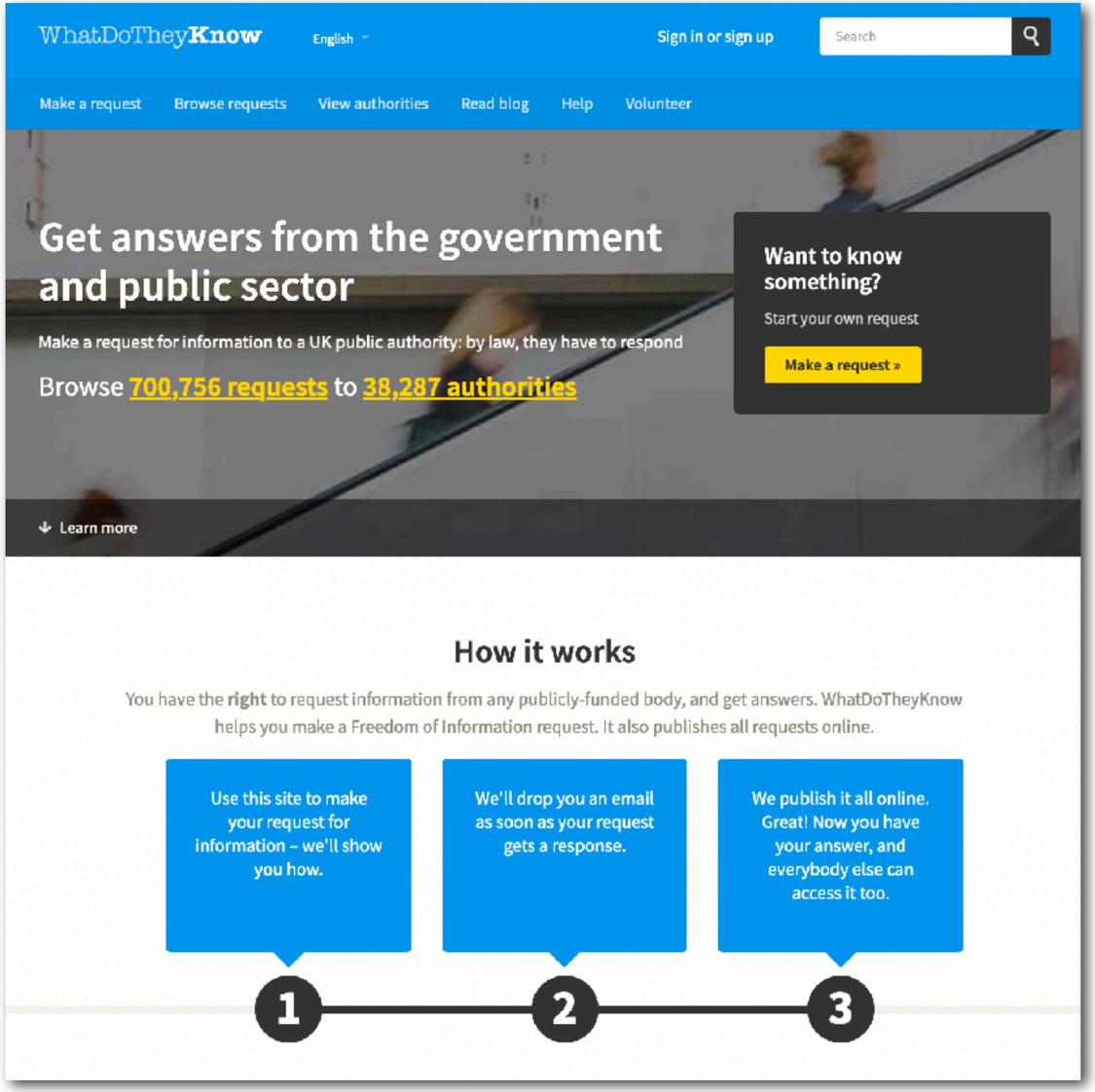
CONSEQUENCE SCANNING

https://doteveryone.org.uk/project/consequence-scanning/

Challenge power

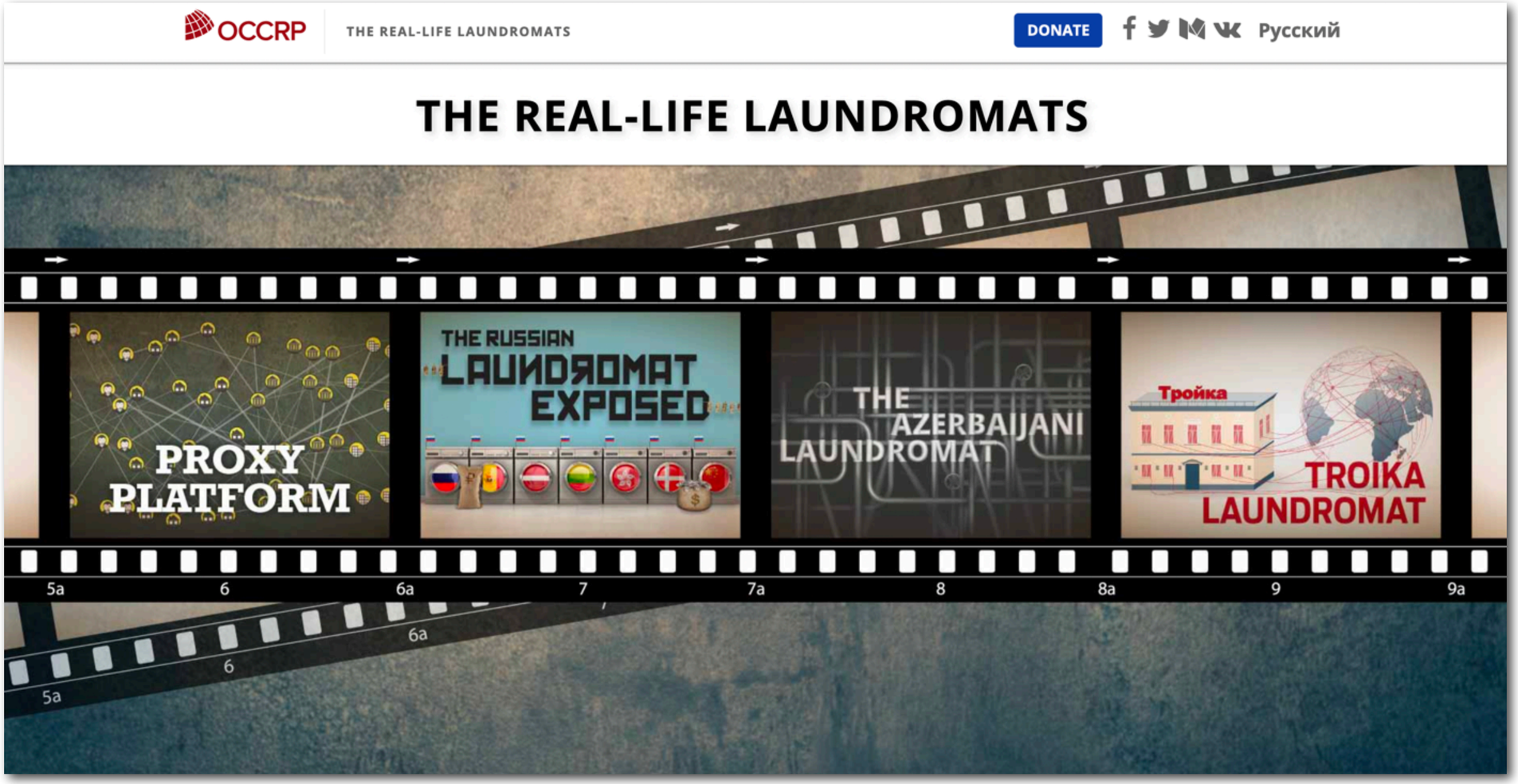
Set up monitoring and accountability structures against governments and corporations

USE FOI LAW



https://www.whatdotheyknow.com/

FOLLOW THE MONEY

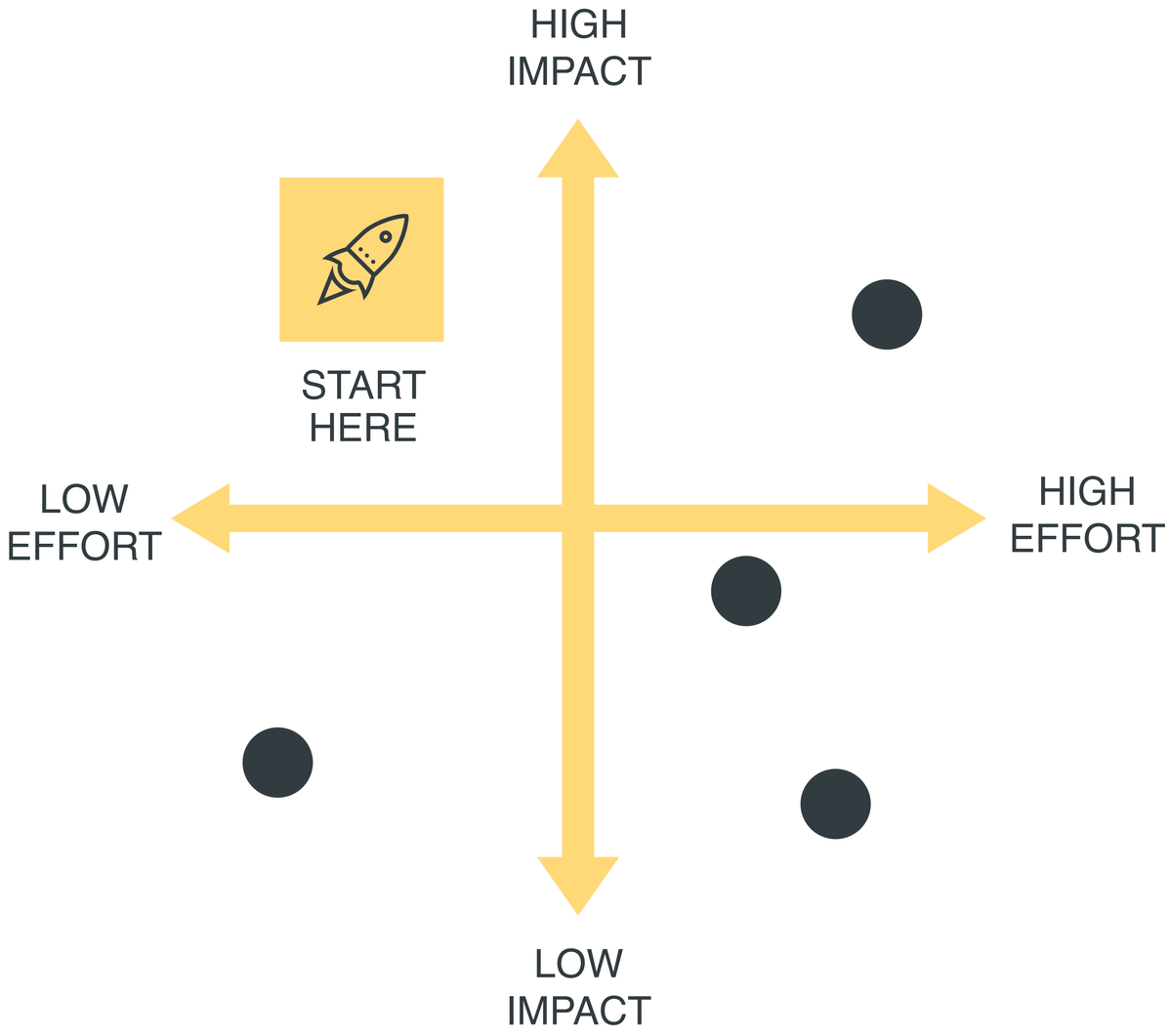


https://www.occrp.org/en/laundromats/

Improve cooperation

Organise activities bringing various CSOs together on issues of common interest

PROBLEM STATEMENT



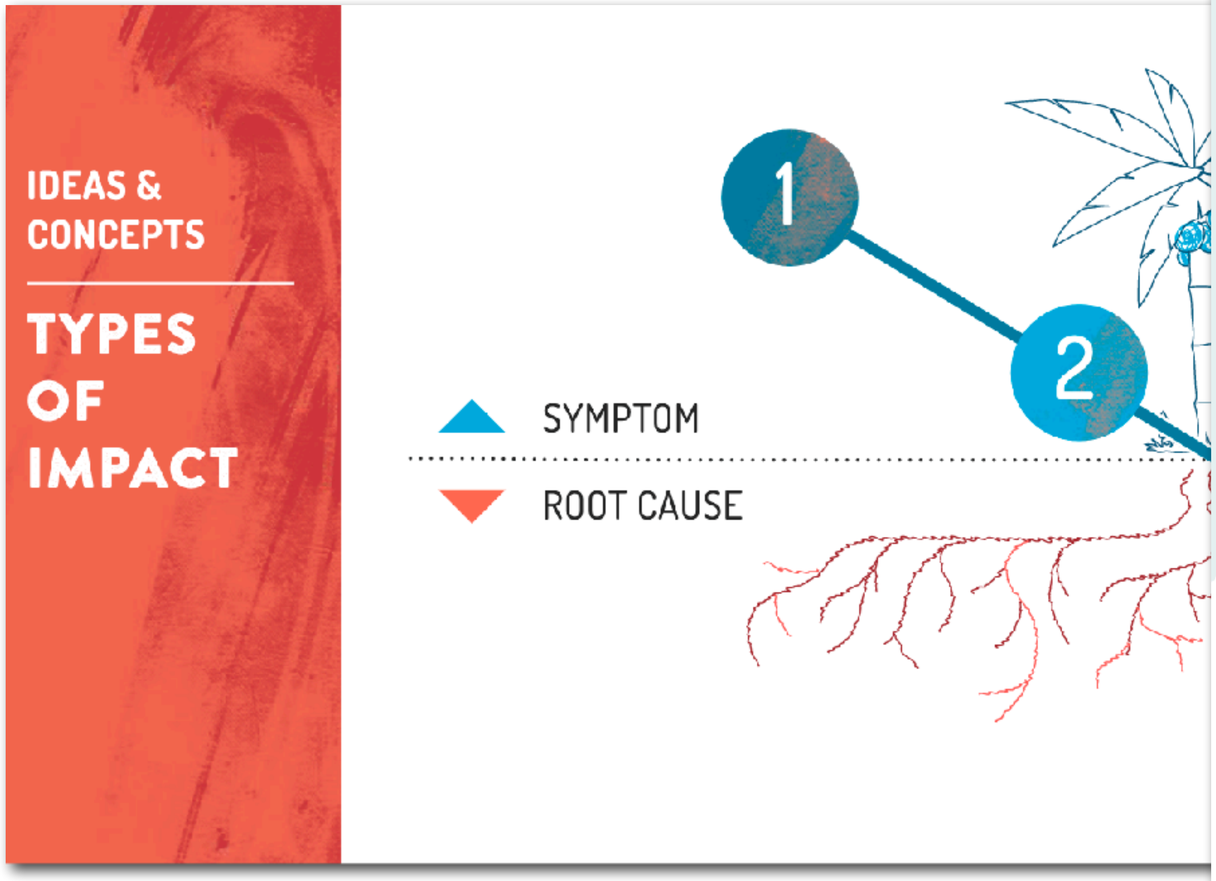
Contextualise the problem

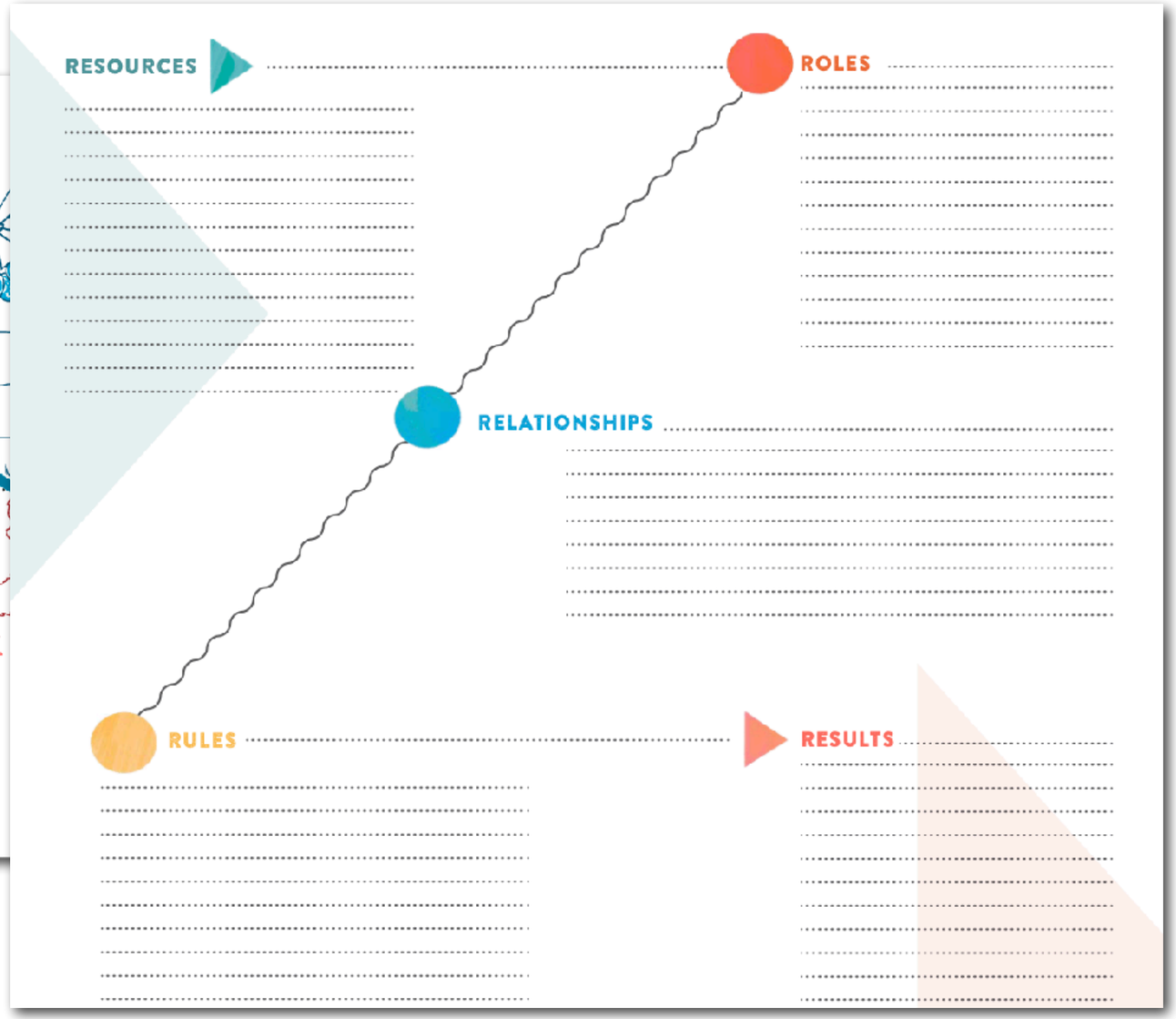
What approaches have we tried?

What have others tried?

What are the internal and external constraints on implementing a solution?

SYSTEMS THINKING





https://www.changemaking.net/

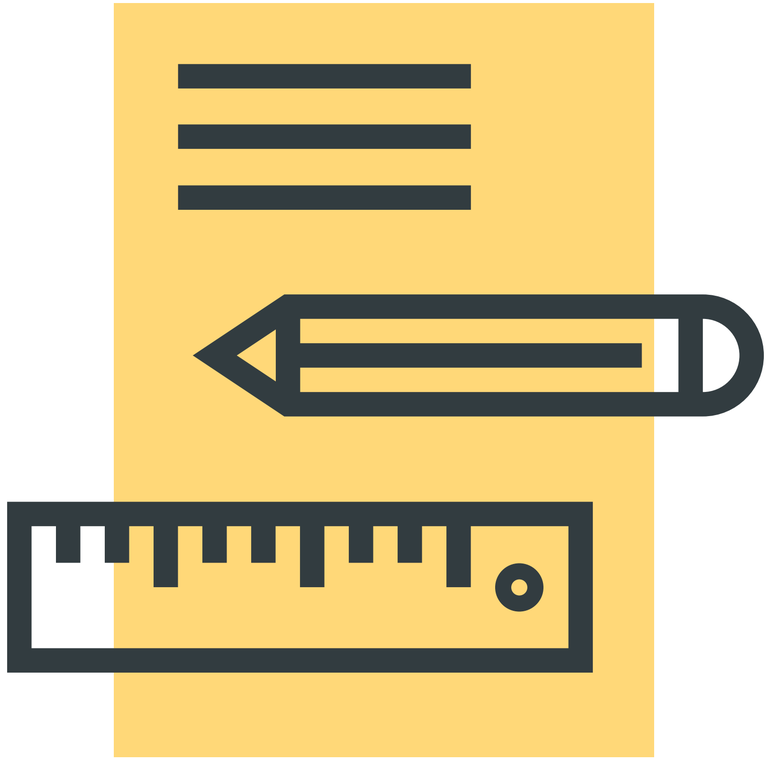
TIPS

Ask questions

Make assumptions explicit, identify potential blindspots, ask why. Being skeptical is the first step to learning new and unexpected things.

Gather information

Do your own research, come up with alternative perspectives, and always look at the data.



Take your time

Nobody makes great decisions under pressure.

Be curious

Allow new evidence to change your mind. Seek out new evidence that might change your mind.

THANK YOU!

Eileen Wagner

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Literature & Resources

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Common logical fallacies

https://en.wikipedia.org/wiki/List_of_fallacies

https://www.logicalfallacies.org/

https://blog.hubspot.com/marketing/common-logical-fallacies

Russell, Bertrand (1912). The Problems of Philosophy.

http://www.ditext.com/russell/russell.html

Common cognitive biases

https://en.wikipedia.org/wiki/List_of_cognitive_biases

https://www.verywellmind.com/cognitive-biases-distort-thinking-2794763

https://mycognitivebiases.com/

Logic models

https://ctb.ku.edu/en/table-of-contents/overview/models-for-community-health-and-development/logic-model-development/main

Consequence Scanning

https://www.doteveryone.org.uk/project/consequence-scanning/

Systems thinking resources

https://www.changemaking.net/resources/