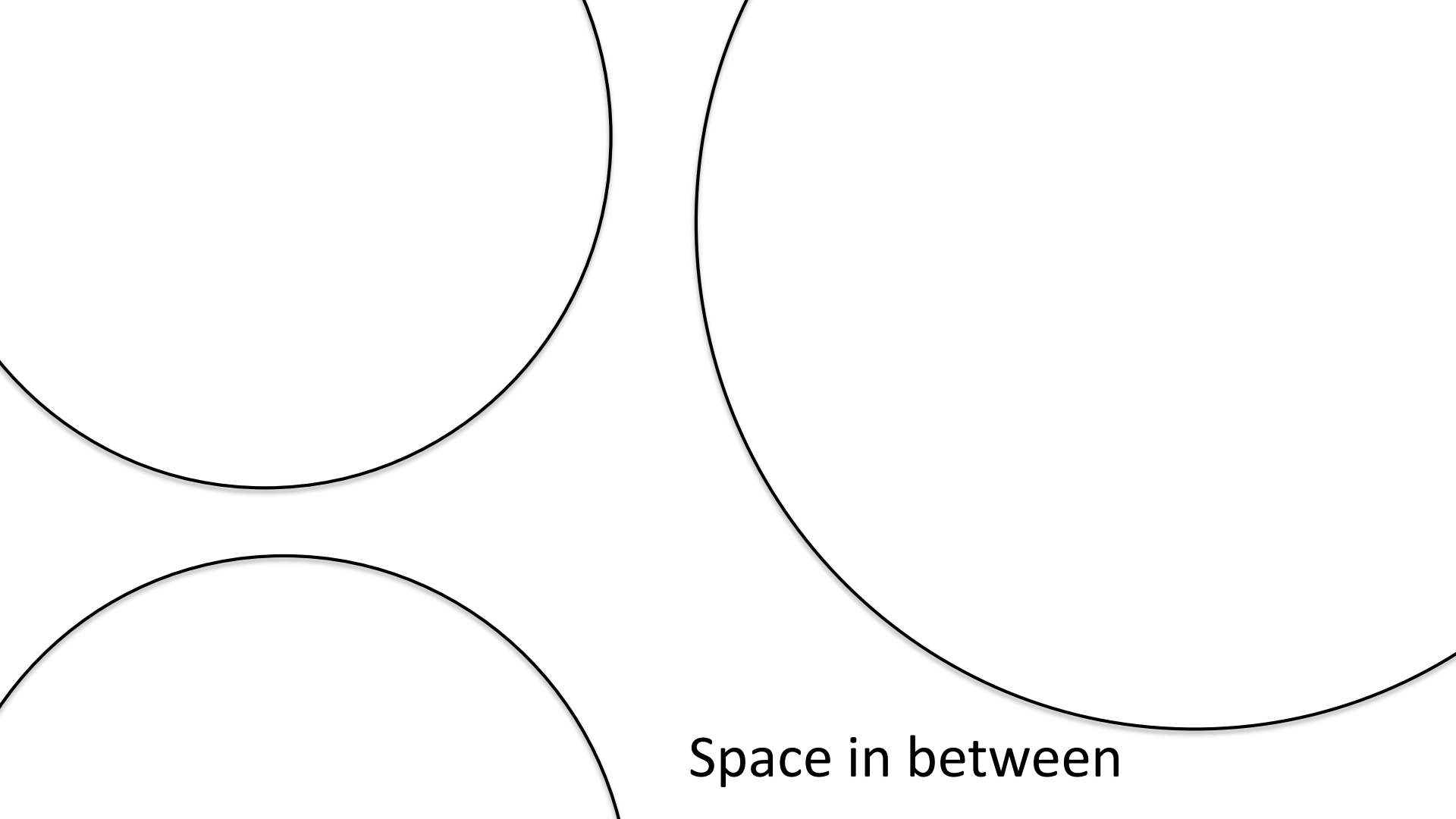




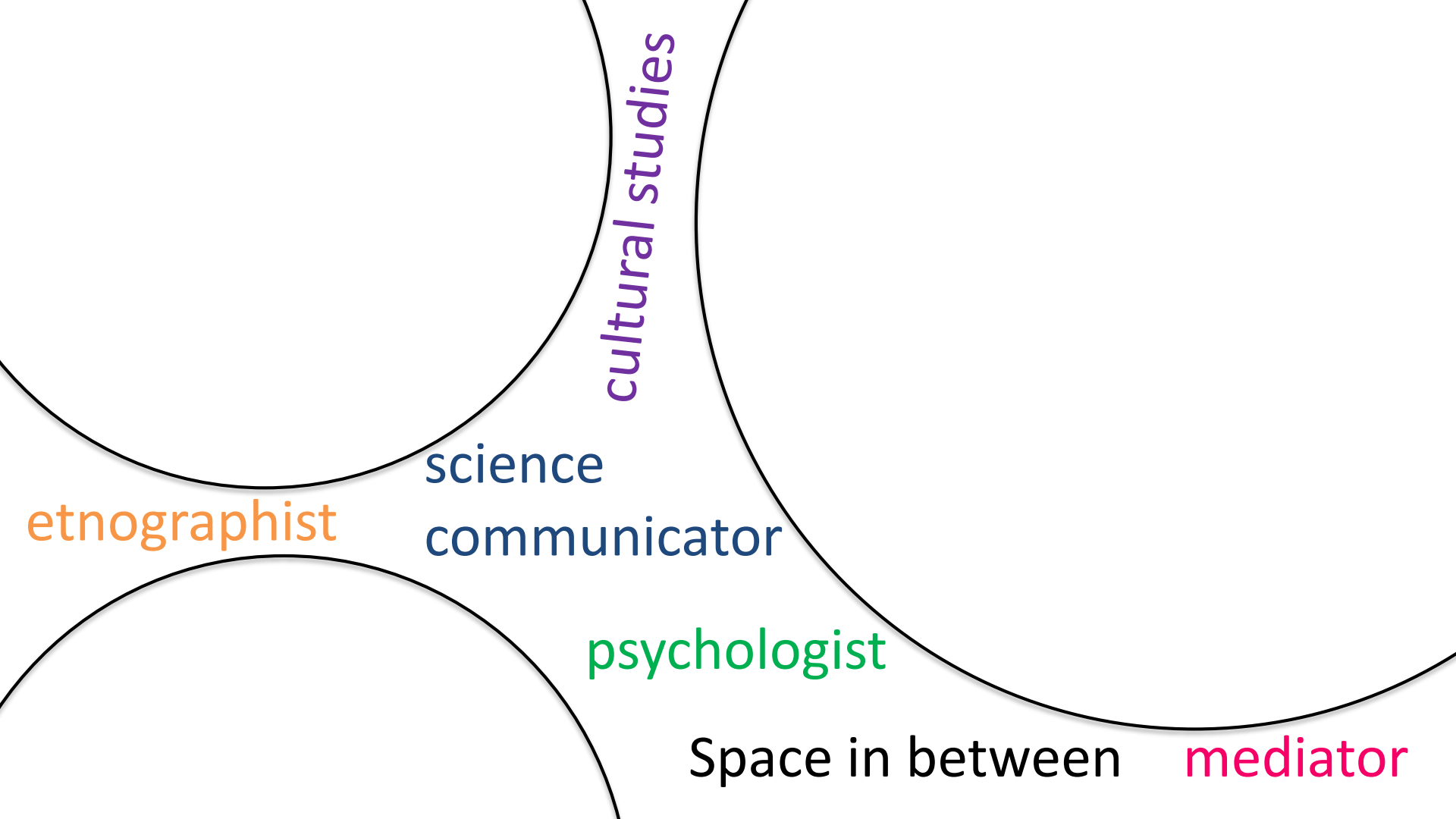
REFRAMING - - - - -

//Innovation & Technology // Futures

9.7.2019 Tuuli U @ IS



Space in between



ethnographer

science
communicator

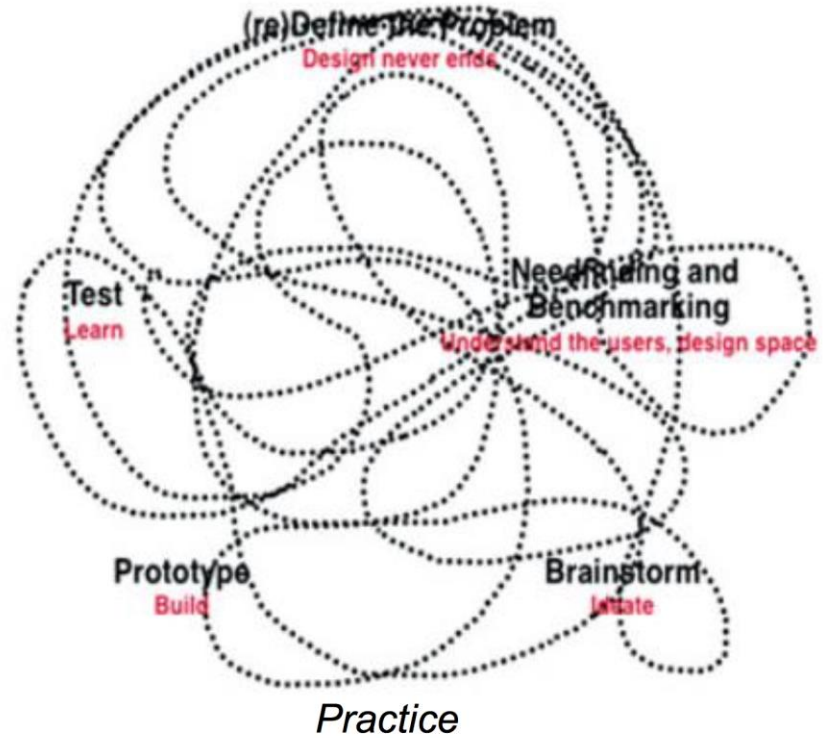
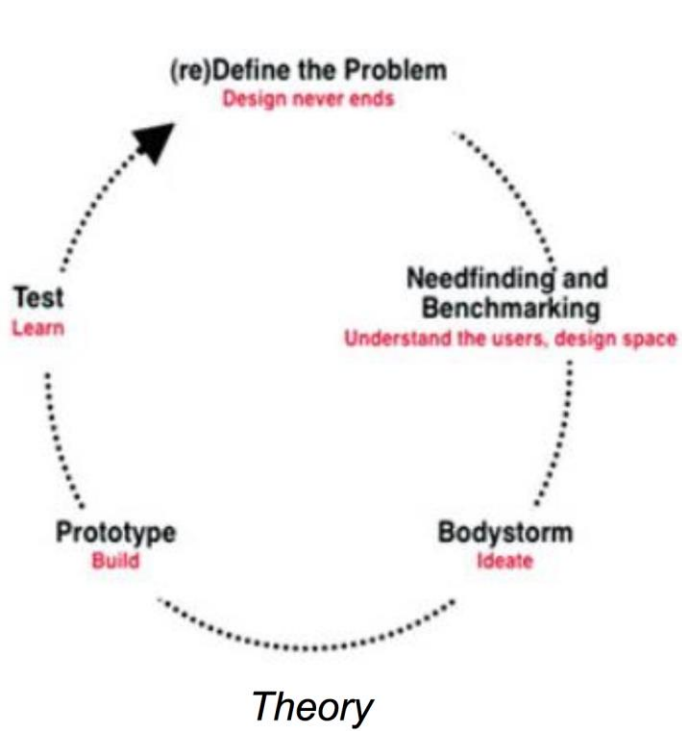
cultural studies

psychologist

Space in between mediator

Engineering and innovation

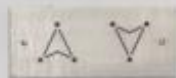
... how do they differ?

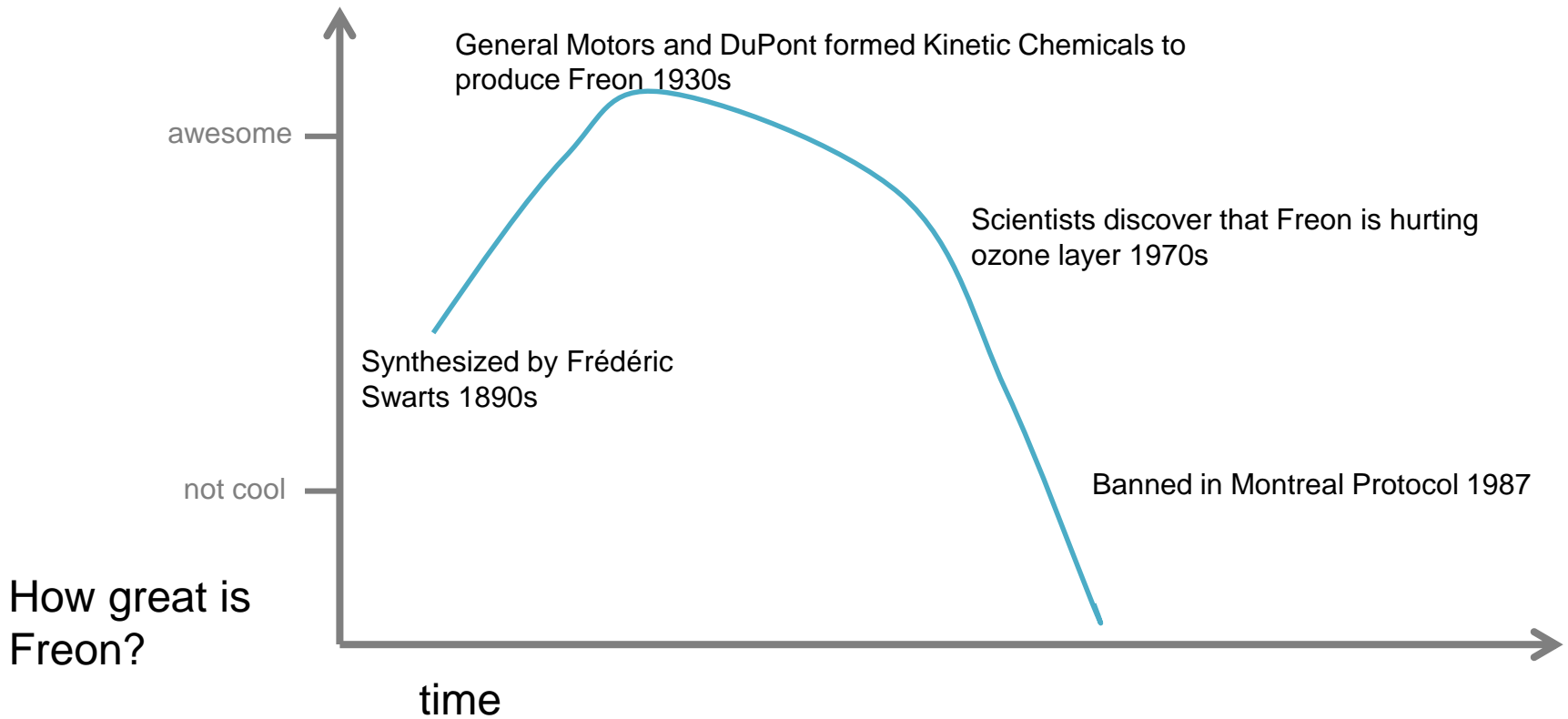


Innovation is not linear...

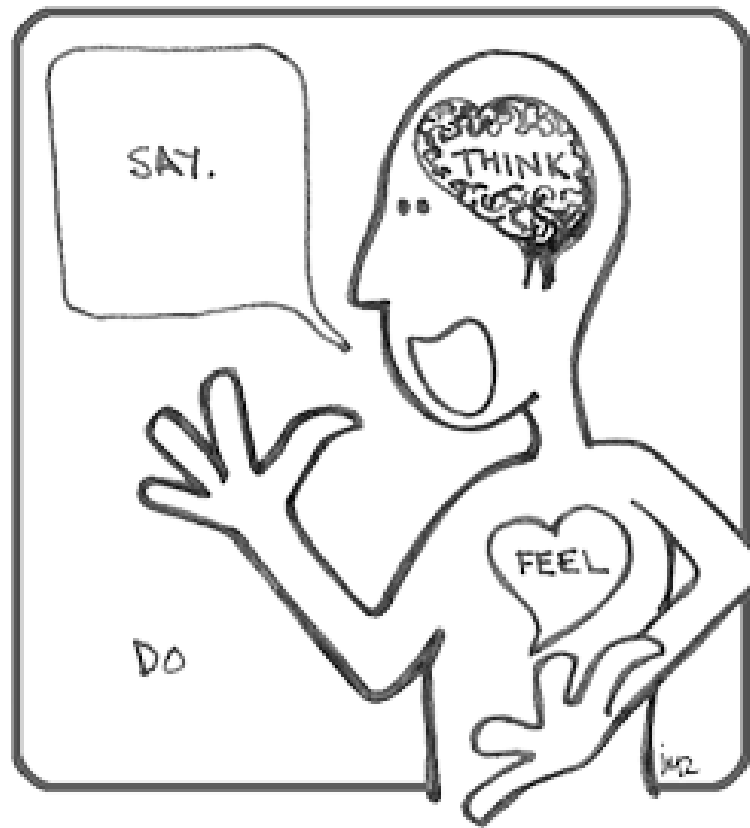
$$\underline{\underline{X = 5}}$$

**There is no right solution...
(just many solutions)**





When do we measure the success of an invention?



**Its dealing with the icky human stuff...
(internally and externally)**

20 COGNITIVE BIASES THAT SCREW UP YOUR DECISIONS

1. Anchoring bias.

People are **over-reliant** on the first piece of information they hear. In a salary negotiation, whoever makes the first offer establishes a range of reasonable possibilities in each person's mind.



2. Availability heuristic.

People **overestimate the importance** of information that is available to them. A person might argue that smoking is not unhealthy because they know someone who lived to 100 and smoked three packs a day.



3. Bandwagon effect.

The probability of one person adopting a belief increases based on the number of people who hold that belief. This is a powerful form of **groupthink** and is reason why meetings are often unproductive.



4. Blind-spot bias.

Failing to recognize your own cognitive biases is a bias in itself. People notice cognitive and motivational biases much more in others than in themselves.



5. Choice-supportive bias.

When you choose something, you tend to feel positive about it, even if that **choice has flaws**. Like how you think your dog is awesome — even if it bites people every once in a while.



6. Clustering illusion.

This is the tendency to **see patterns in random events**. It is key to various gambling fallacies, like the idea that red is more or less likely to turn up on a roulette table after a string of reds.



7. Confirmation bias.

We tend to listen only to information that confirms our **preconceptions** — one of the many reasons it's so hard to have an intelligent conversation about climate change.



8. Conservatism bias.

Where people favor prior evidence over new evidence or information that has emerged. People were **slow to accept** that the Earth was round because they maintained their earlier understanding that the planet was flat.



Its dealing with the icky human stuff...
(internally and externally)



THINKING,
FAST AND SLOW



DANIEL
KAHNEMAN

WINNER OF THE NOBEL PRIZE IN ECONOMICS

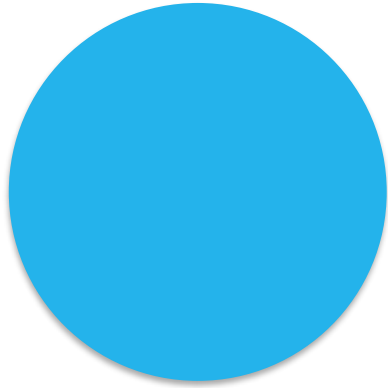
<http://www.youtube.com/watch?v=hXsLtHqfdM&t=98>
s

Its dealing with the icky context...
(out of the lab)

Assignment:

“Bring a personal problem”

**Its dealing with the PROBLEM DEFINITION
(and its not specific)**



55 min on
problem



5 min on
solution

“If I had an hour to solve a problem and my life depended on the solution, I would spend the first 55 minutes determining the proper question to ask, for once I know the proper question, I could solve the problem in less than five minutes.” - Einstein

- Accidental innovations

Penicillin

Post-its

Glowing effect

- Selective attention

- E.g. Basket ball test

**embracing the unknown
(not excluding it)**



We ask you to embrace...

unknown

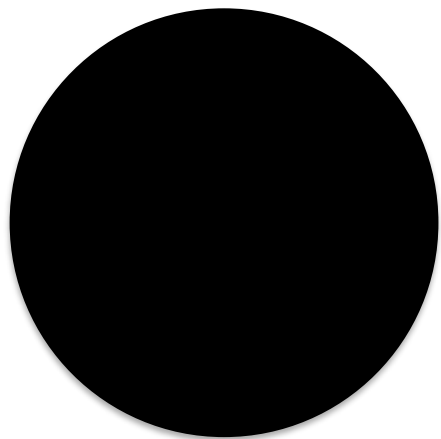
non-linearity

icky human stuff

icky context

problem framing

solution framing



“Technology is a product of an animal/human mind.”

“Would only occur because of life, but is not living”

Kevin Kelly



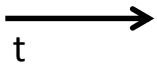
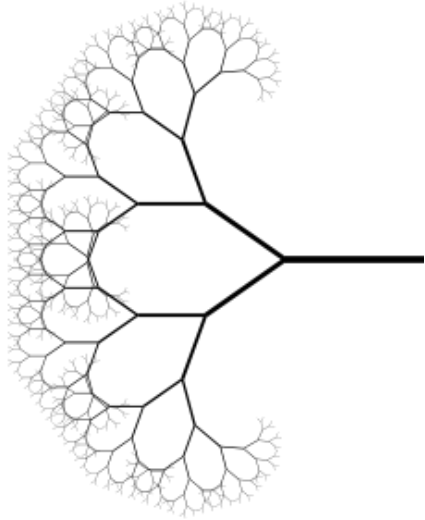
Technological evolution

Natural sequence to developments

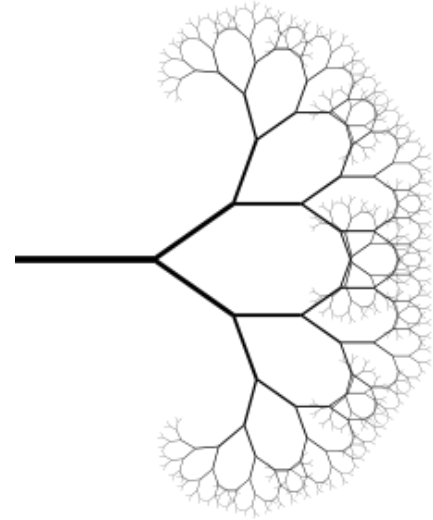
e.g. domestication of dogs → pottery →
sewing → etc.

Kevin Kelly

Technology as a catalyst for evolution



Converging and creating
of a single “megatech”
e.g. Pierre Teilhard de Chardin



Diverging and creating
forever divergent tech
e.g. Kevin Kelly

How will your project fit into the “techno sphere” or expand it?

Which path are you crafting?

Are you integrating technologies or diverging them?

What are the qualities of a good partner?

Freedom or crotches?

Enabling or disabling?



Technology creates problems...
& unintended consequences!



when good
intentions backfire

Future part

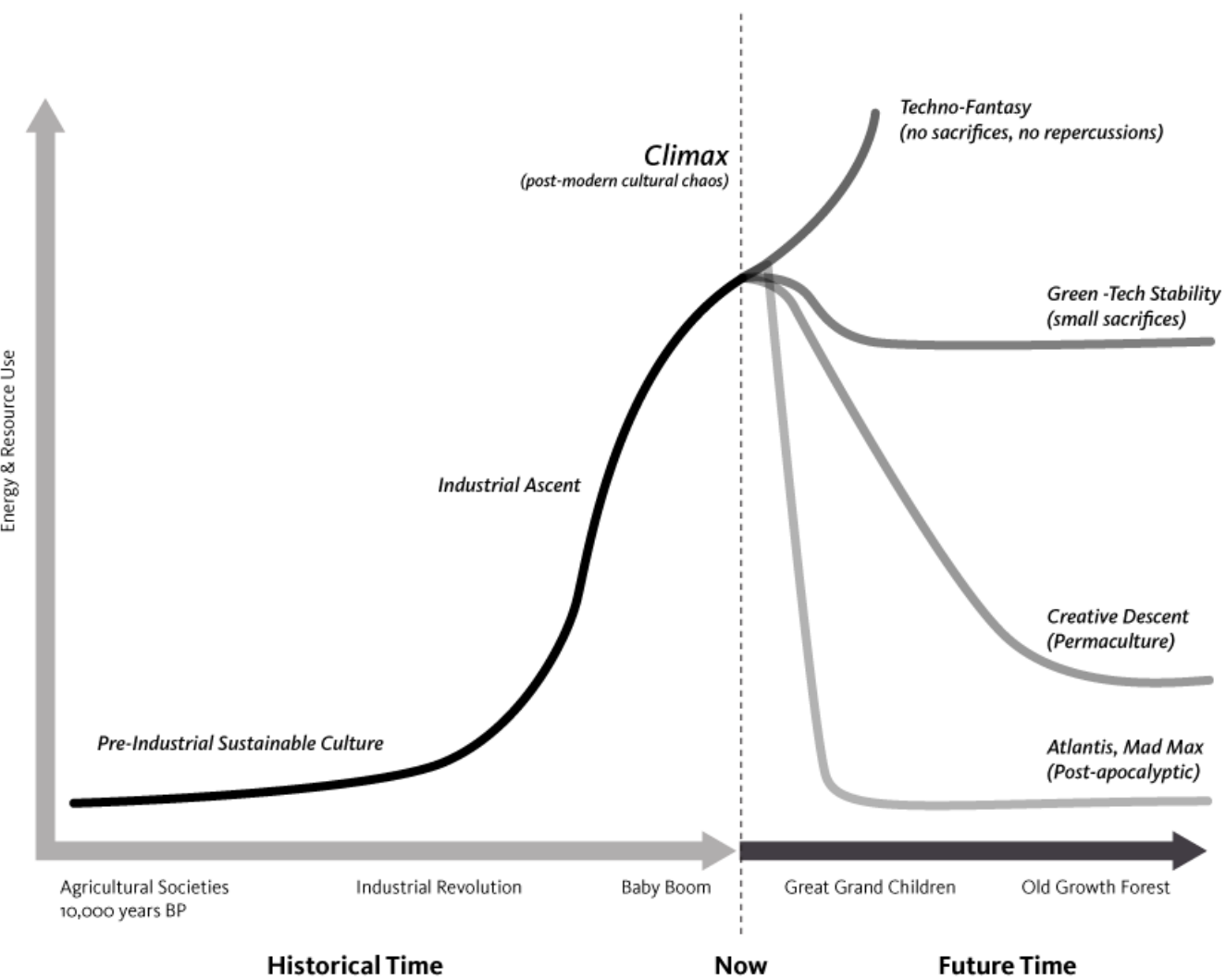
“Who here thinks AI will significantly impact the industry you are working in the next 4 years?”

“Who here can tell me they understand what AI is?”

“Who here thinks AI will significantly impact the industry you are working in the next 4 years?”

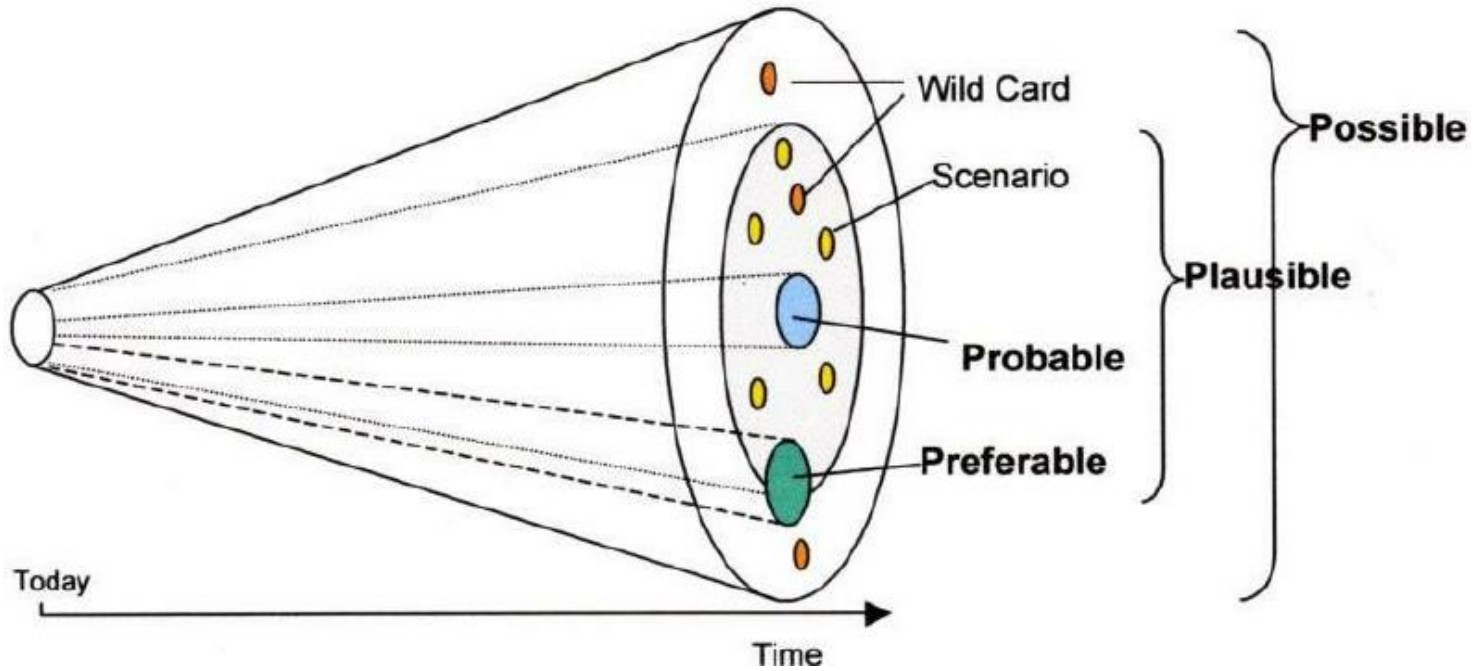
**WE NEED TO CONSIDER THIS
STUFF!!!**

“Who here can tell me they understand what AI is?”



Energy?
Inequality?
Work?

...



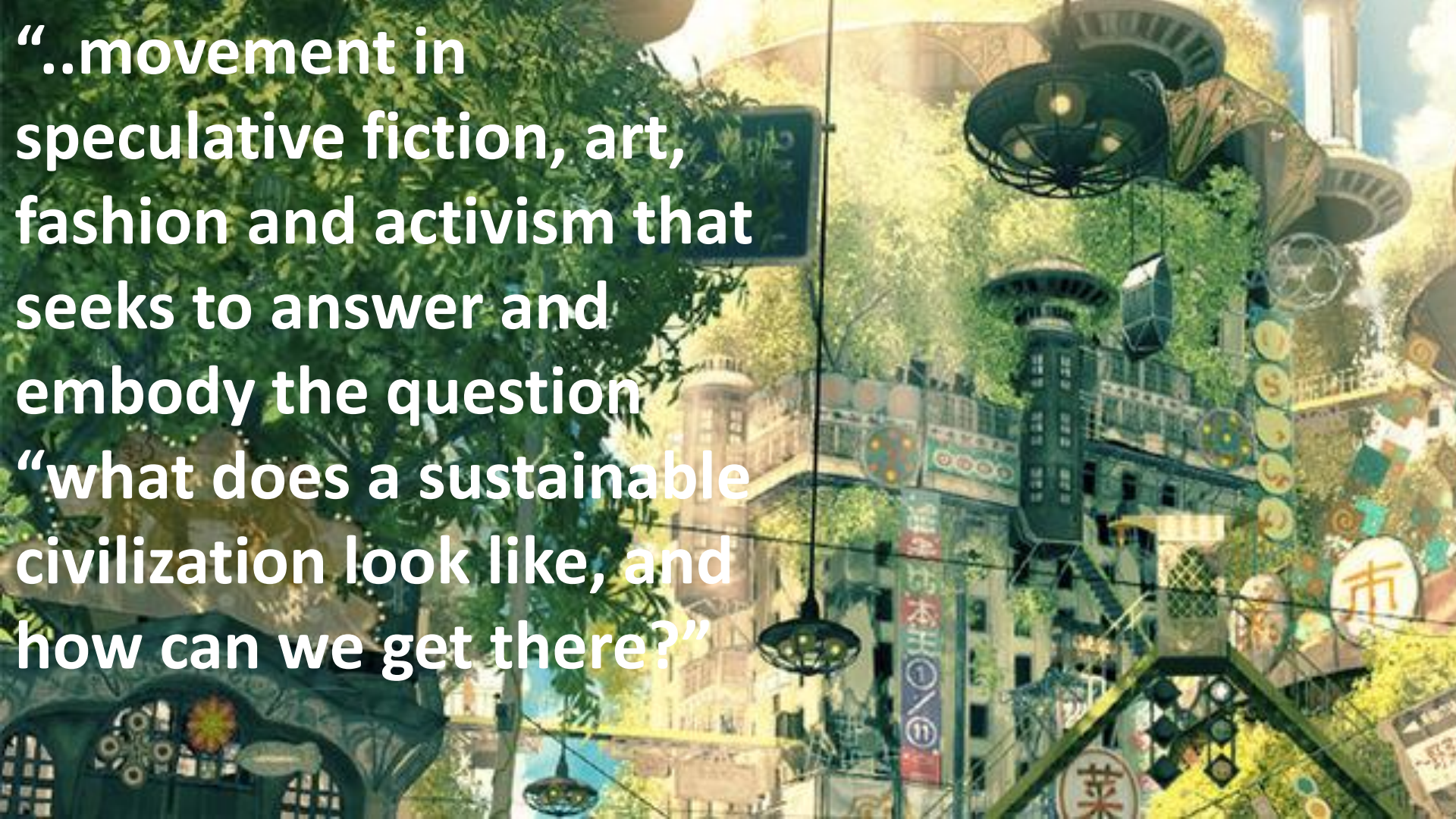
Speculative fiction

Name ↕	Description ↕	Examples ↕
Fantasy	Includes elements and beings from human cultural imagination, such as mythical creatures (dragons and fairies, for example), magic and magical elements, sorcery , witchcraft , etc.	<i>The Lord of the Rings, Harry Potter</i>
Science fiction	Features natural sciences and technologies that do not exist in real life (but may be supposed to exist in the future), including robots , interstellar travel , flying cars and also beings and societies from other planets (aliens).	<i>2001: A Space Odyssey, Blade Runner, Jurassic Park, Planet of the Apes, Star Trek, Star Wars</i>
Horror	Somewhat similar to fantasy, but focusing on terrifying, evil and often powerful beings, such as monsters and ghosts . Also aims to transmit actual fear and confusion to the reader/watcher.	<i>A Nightmare on Elm Street, The Exorcist</i>
Utopian	Takes place in a highly desirable society, often presented as advanced, happy, intelligent or even perfect or problem-free.	<i>Island, Ecotopia, 17776</i>
Dystopian	Takes place in a highly undesirable society, often plagued with strict control, violence, chaos, brainwashing and other negative elements.	<i>1984, Brave New World, Brazil</i>
Alternate history	Focusing on historical events as if they happened in a different way, and their implications on the present.	<i>The Man In The High Castle, Fatherland, The Tales of Alvin Maker</i>
Apocalyptic	Takes place before and during a massive, worldwide disaster.	<i>The Day After Tomorrow, 2012, On The Beach, Threads</i>
Post-apocalyptic	Focuses on groups of survivors after a massive, typically worldwide disaster.	<i>Waterworld, Metro 2033, The Stand, Fallout, Mad Max</i>
Superhero	Centers on superheroes (i.e. heroes with extraordinary abilities or powers) and their fight against evil forces such as supervillains . Typically incorporates elements of science fiction and/or fantasy, and may be a subgenre of them.	<i>Spider-Man, Avengers, Batman</i>
Supernatural	Exploits or requires as plot devices or themes some contradictions of the commonplace natural world and materialist assumptions about it.	<i>Paranormal Activity, Fallen, The Castle of Otranto</i>



What is Solarpunk?

“..movement in speculative fiction, art, fashion and activism that seeks to answer and embody the question “what does a sustainable civilization look like, and how can we get there?”




If we don't have a dream,
how can it come true?

Key events that will essentially affect our challenge in the future:



Event 1:



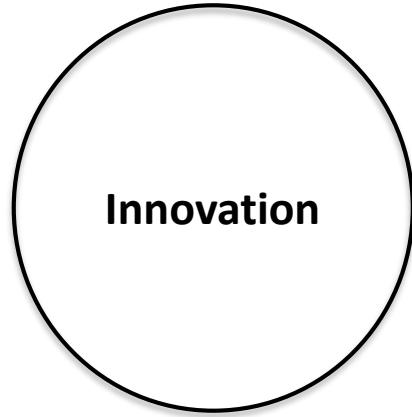
Event 2:



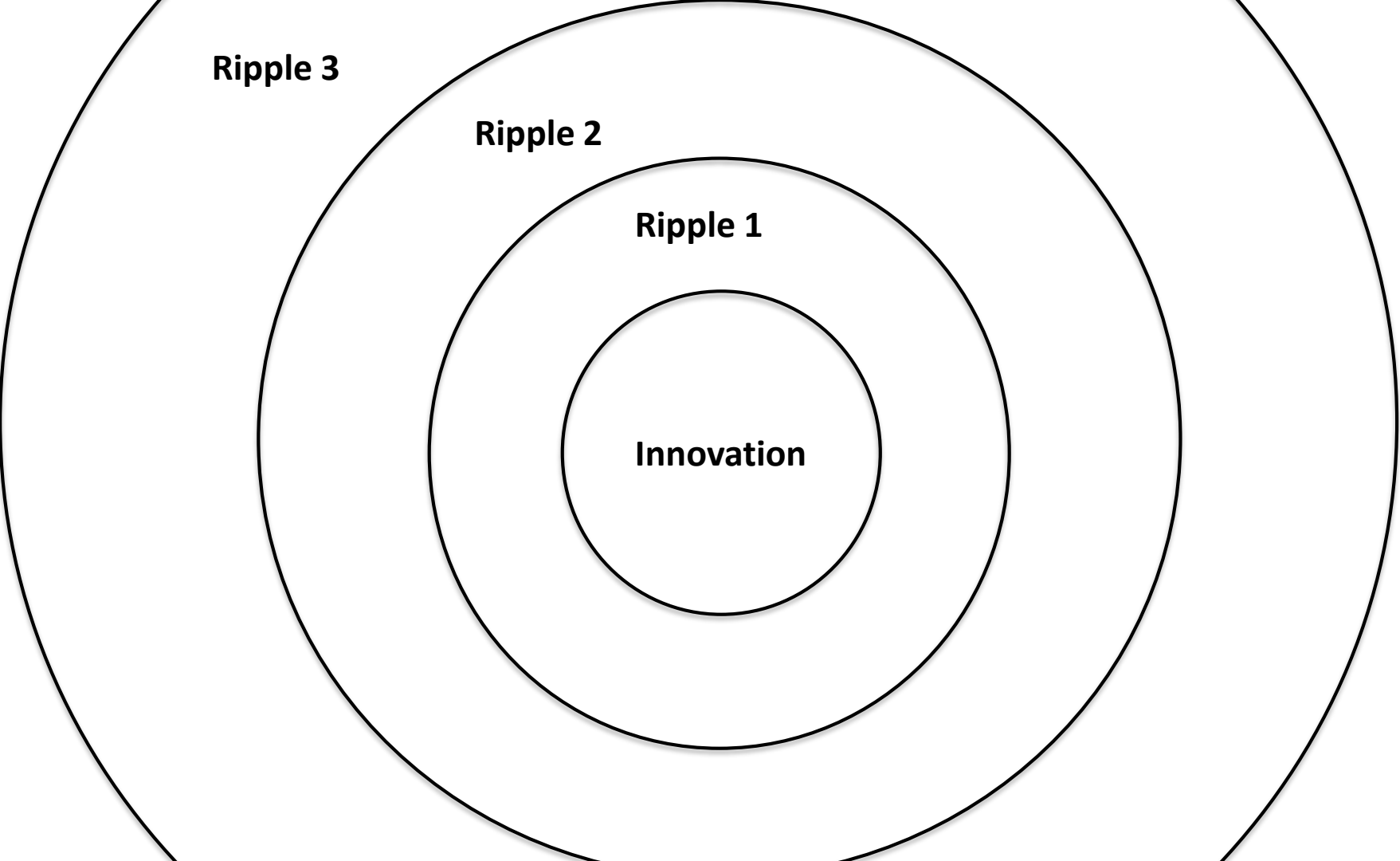
Event 3:

*e.g. related to
Work
Culture
Natural disasters
AI
Singularity
Social acceptance
Identity
Fashion
Family model
Spending time
Cyborg grandmother
Relationships
Religion
Cost of X
...*

→ Derive 3 design implications



Innovation



Ripple 3

Ripple 2

Ripple 1

Innovation

