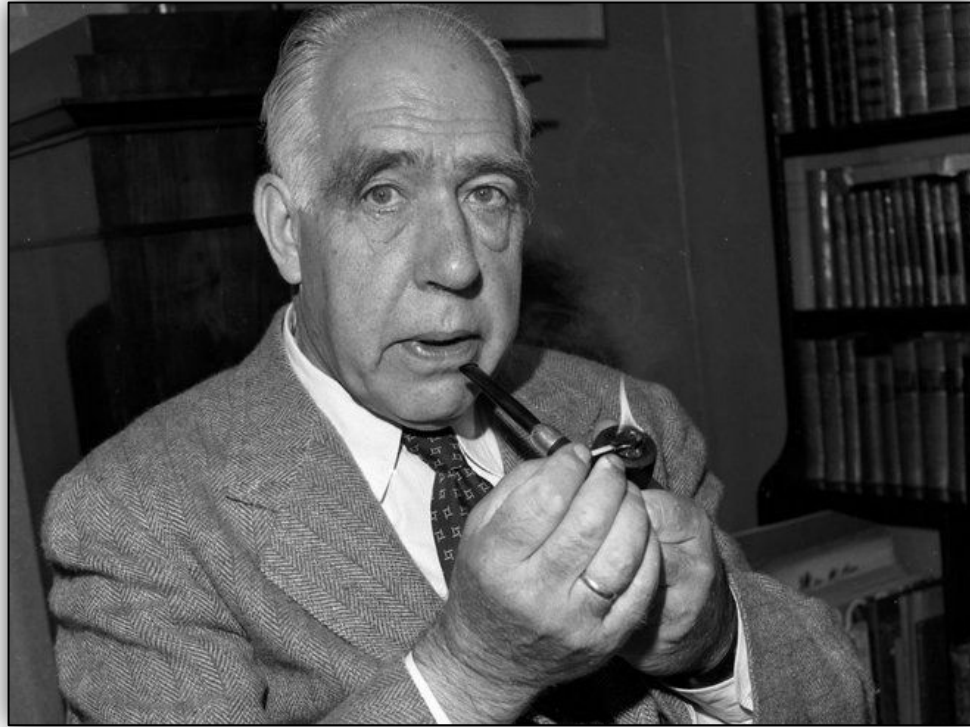# Multiverse Thinking

Pablo Garcia Tello, CERN, IdeaSquare

Prediction is very difficult, especially if it's about the future.
Niels Bohr

Despite Bohr's advice we keep on doing it…
…and proving ourselves wrong…

"X-rays will prove to be a hoax."
Lord Kelvin, President of the Royal Society, 1883.

"This 'telephone' has too many shortcomings to be seriously considered as a means of communication."
William Orton, President of Western Union, 1876.

"I think there is a world market for maybe five computers."
Thomas Watson, chairman of IBM,1943.

**"Nuclear powered vacuum cleaners will probably be a reality within 10 years."**
Alex Lewyt, President of the Lewyt Vacuum Cleaner Company, 1955.

"I predict the Internet will soon go spectacularly supernova and in 1996 catastrophically collapse."
Robert Metcalfe, founder of 3Com, 1955.

"There is practically no chance communications space satellites will be used to provide better telephone, telegraph, television or radio service inside the United States."
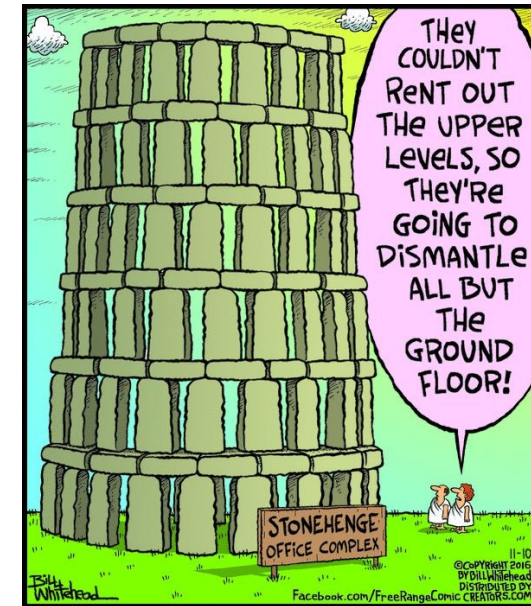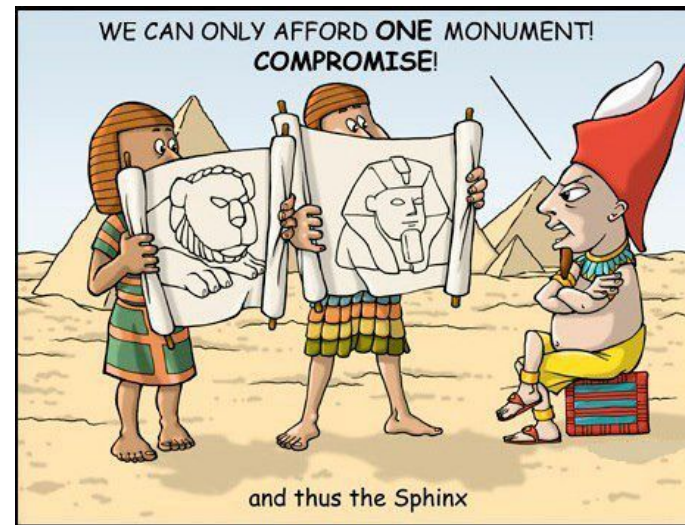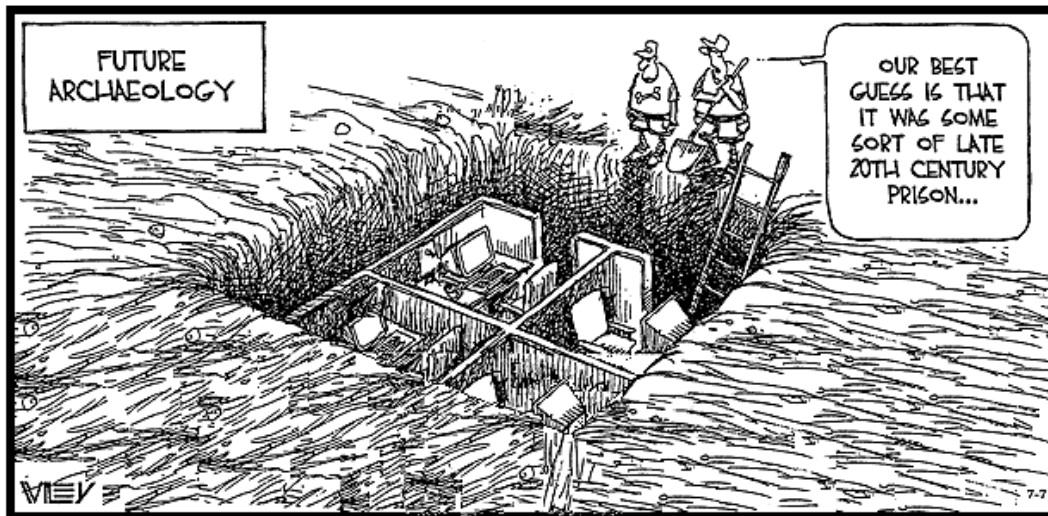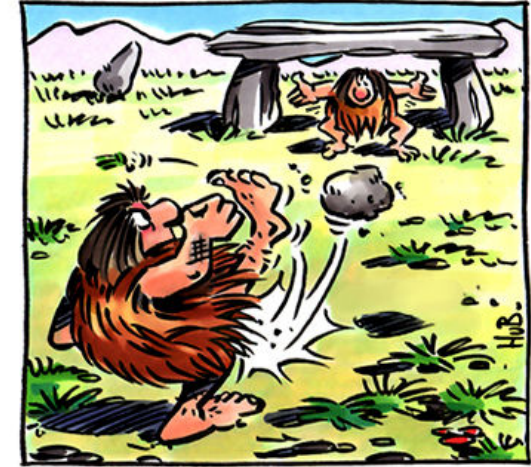T.A.M. Craven, Federal Communications Commission (FCC) commissioner, 1961.
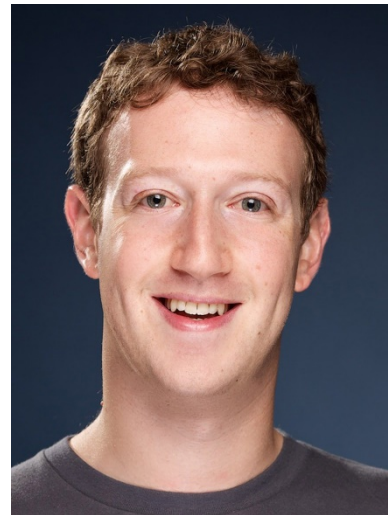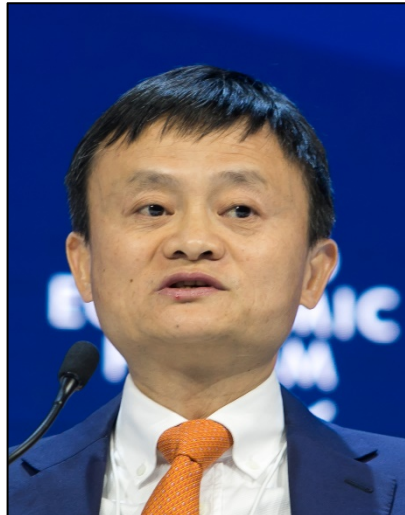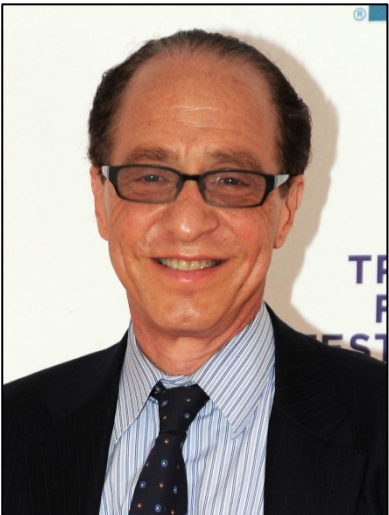
So, what makes you think they will be right?

I love future archeology cartoons!!!
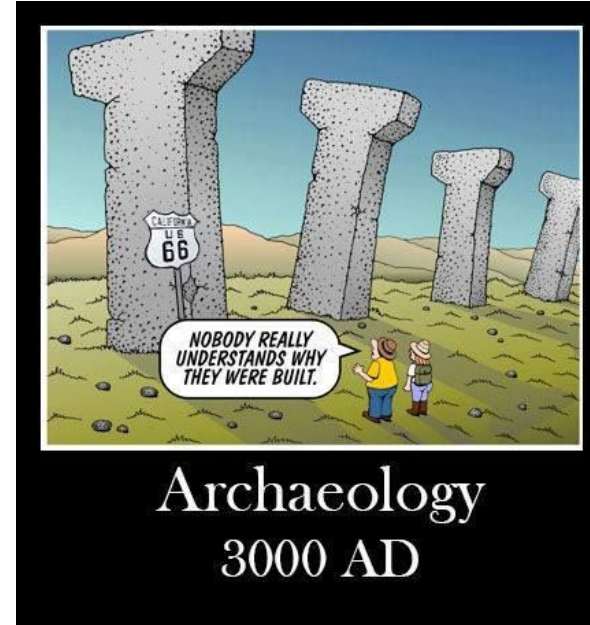
The only way to stay safe in the art of forecasting…

Why Multiverse (Thinking)?

Inspired by the Many Wolds Interpretation of Quantum Mechanics

Anything that can
happen does
happen…

**…in multiple parallel
universes.**
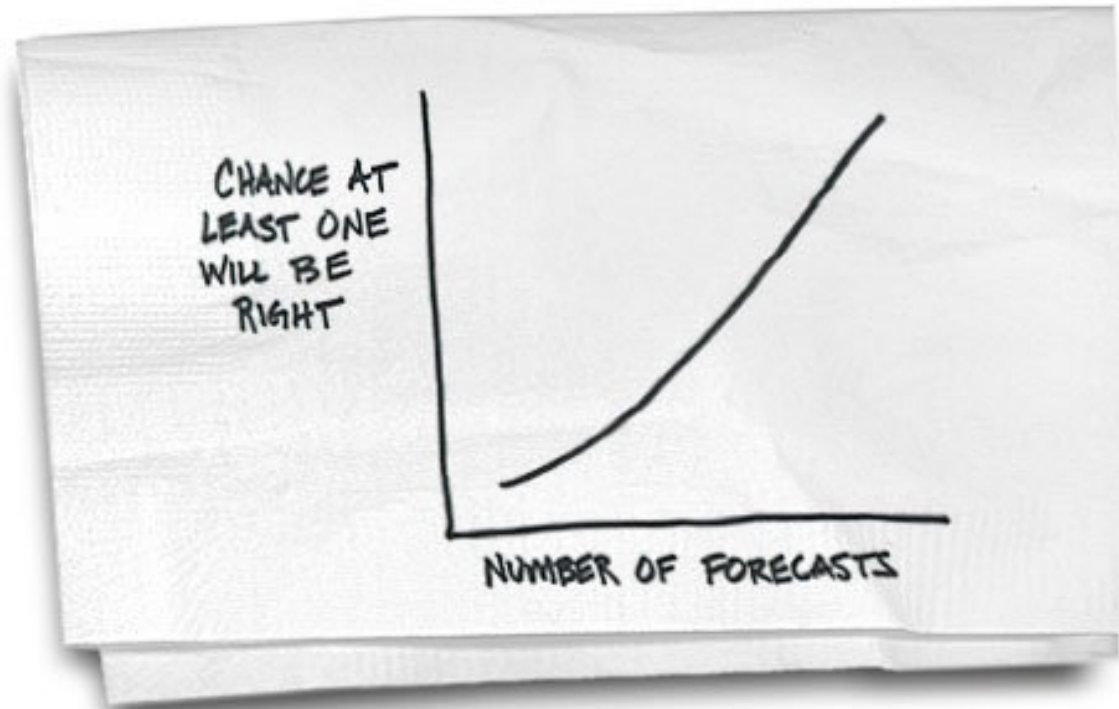
The Multiverse Thinking (MT) Framework
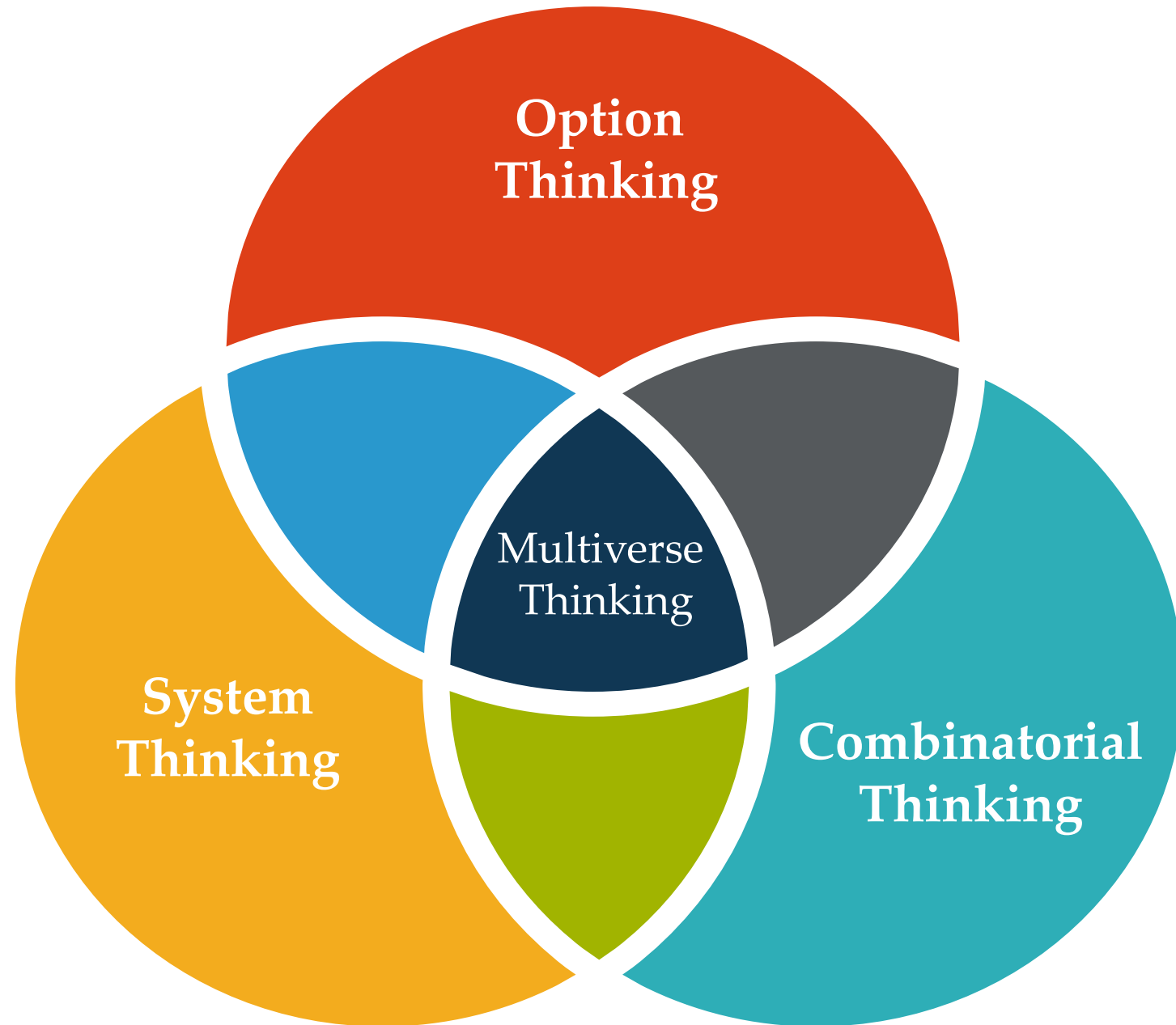
Please, let me show you how to play and you decide how complex you want the game to be…

GREAT MOMENTS IN CHESS

GREGORY
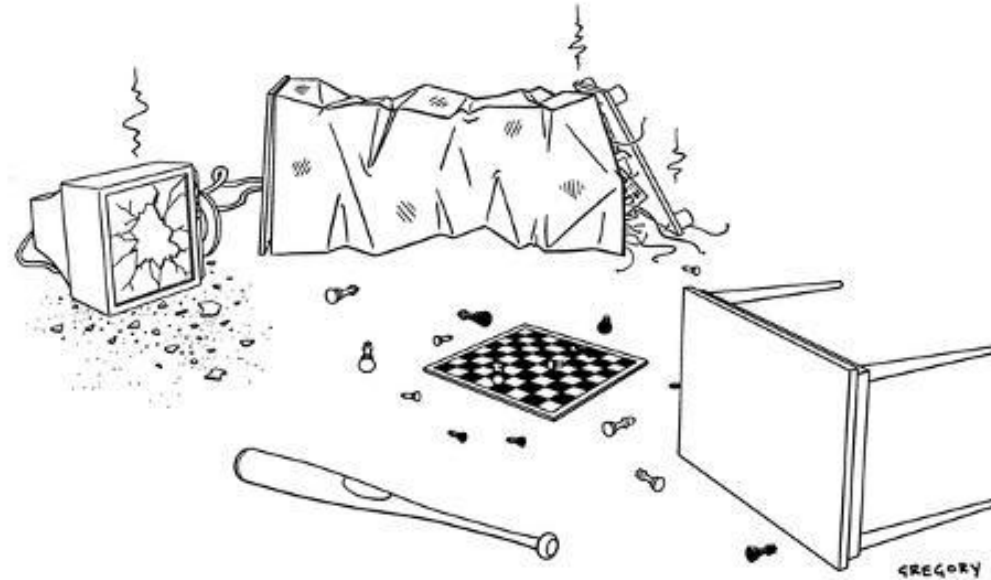
Backed Into a Corner by His Computer Opponent, Grand Master Garry Kasparov Switches to the Unorthodox and Risky Louisville Slugger Offense.

Step1: Building Block Selection: Social Constructs and the Resources as building blocks

Money
Democracy
Poverty
Property rights
Free Market
Freedom of Expression
Family
Job
Salary….

Social Constructs: an idea that has been created and accepted by the people in a society.

Energy
Population
Data
Capital
Labor
Water
Food
Education….

Resources: sources of supply or support.

CERN
Ideas

Step 2: Scenario Building: Scarcity, Absence and Abundance as options

Social Construct Scenarios

→ **Scarcity**

→ **Absence**

→ **Abundance**

Resources Scenarios

→ Scarcity

→ Absence

→ Abundance

Step 3: Scenario(s) Canvas

Social Constructs vs Resources

Resources vs Resources

Social Constructs vs Social Constructs

Step 4: Starting Point (nowadays)

Social Constructs vs **Resources**

Freedom
of
Expression

Abundance		
Scarcity		○
Absence		

Absence   Scarcity   Abundance
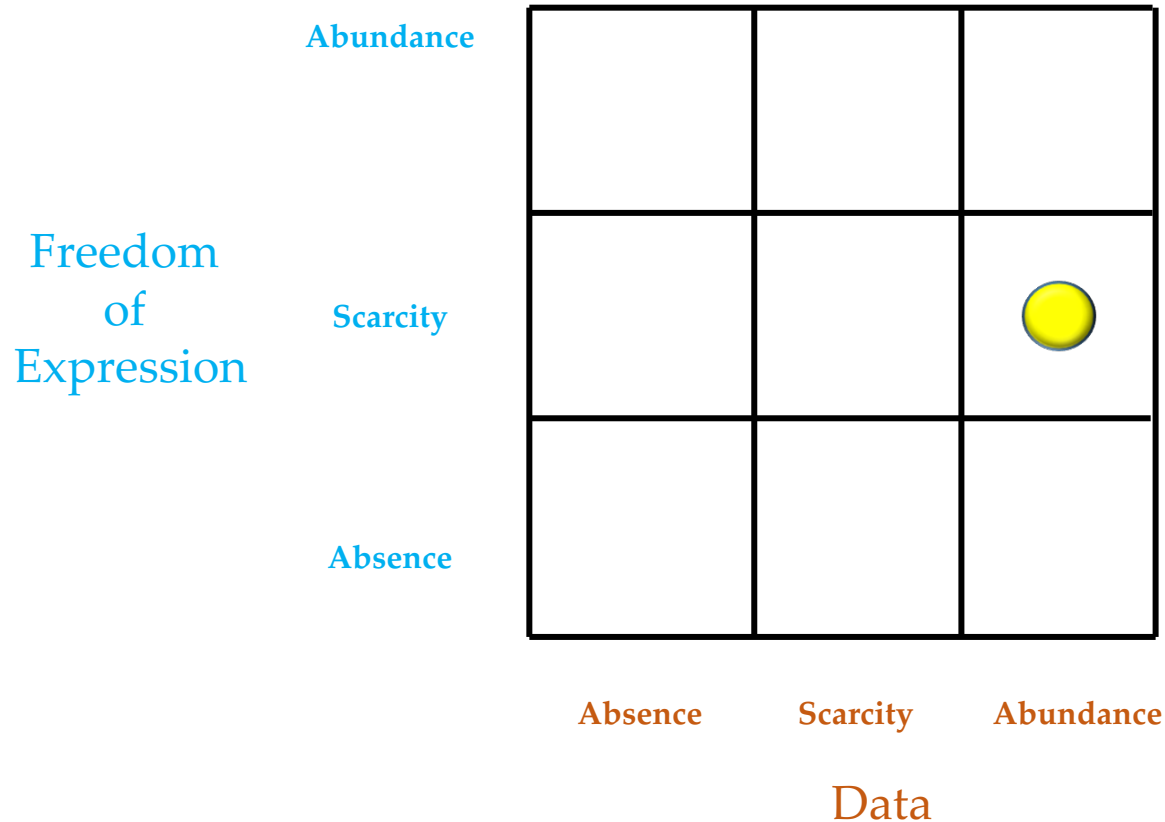
Data

Scenario Building starts with the world as it is today

…scarcity of Freedom of Expression and abundance of Data (data is an abundant resource today)

If the world were a village of 100 people

FREEDOM

48 can't speak, act according to their faith and conscience due to harassment, imprisonment, torture or death.

52 can

Social Construct today

Example

Step 5: My Future (Example)

Social Constructs vs **Resources**

Abundance

Freedom
of
Expression

Scarcity

Absence

Absence   Scarcity   Abundance
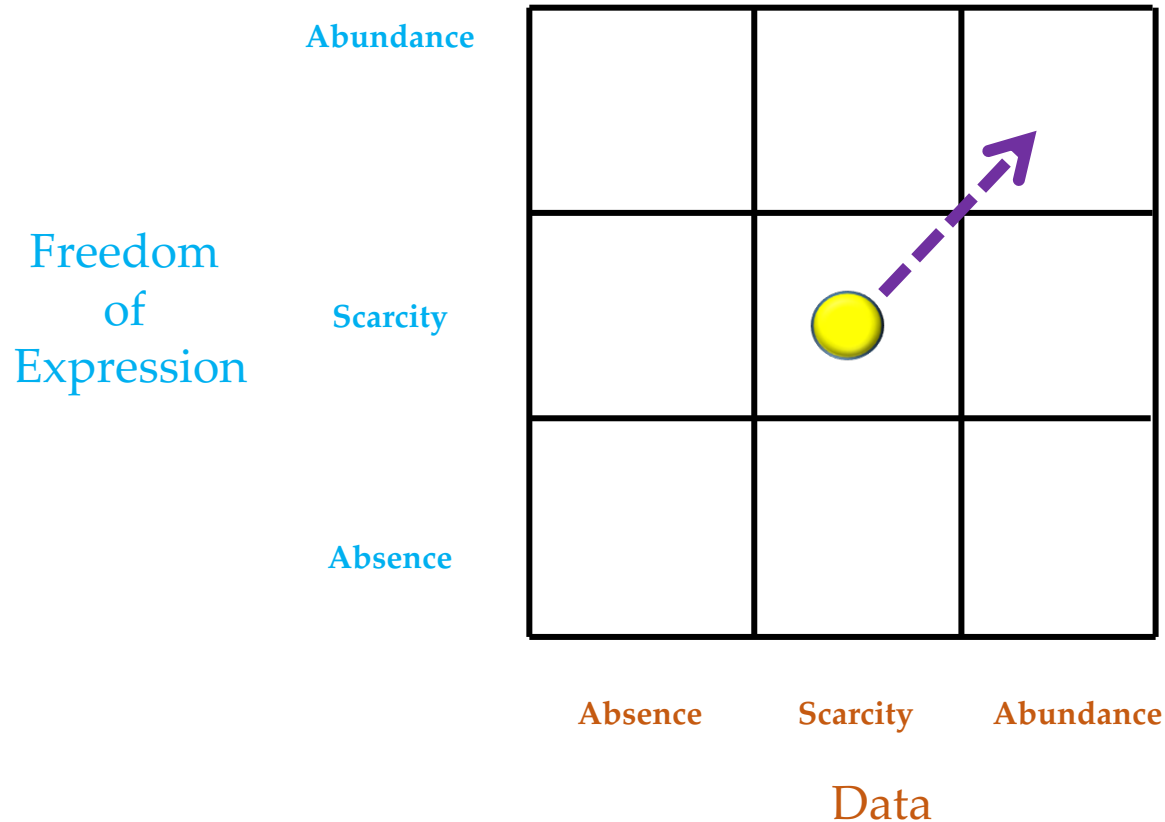
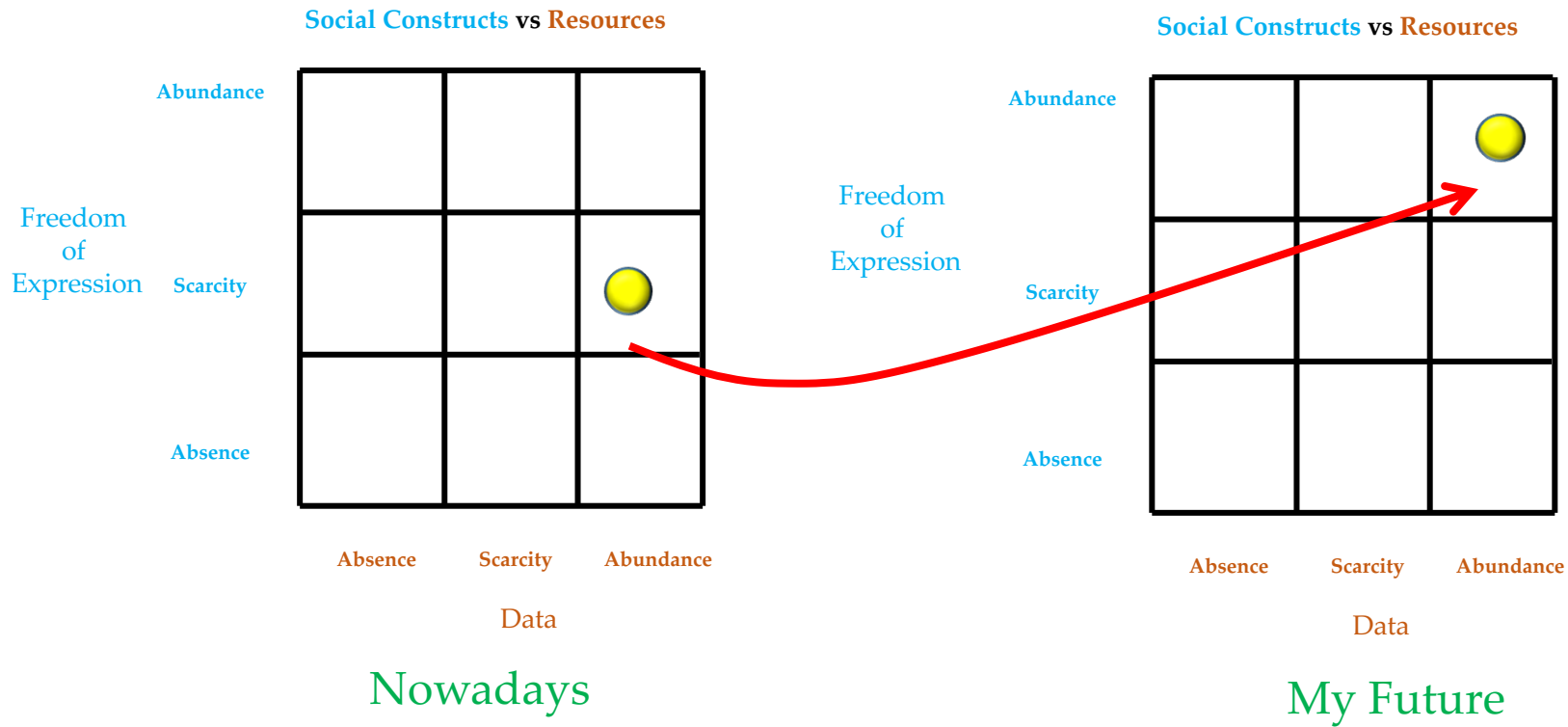Data

But this is the scenario where we
would like to be in

Abundance of Data creates
Abundance of Freedom of
Expression

The goal of MT is to propose a scope
of technologies enabling the
Transition

Social Constructs vs **Resources**

Freedom of Expression — Abundance / Scarcity / Absence

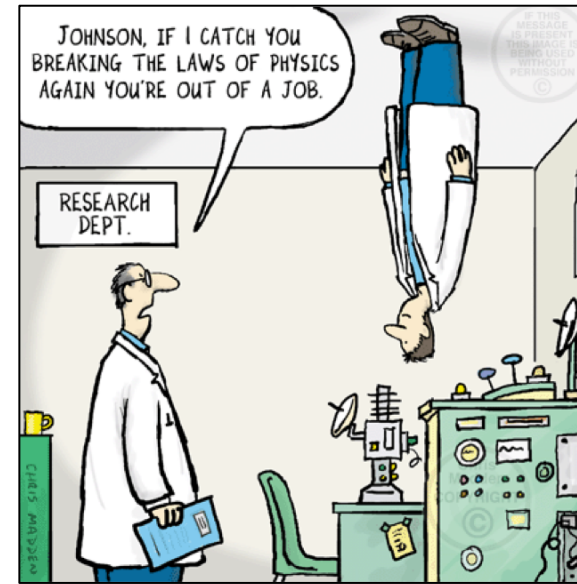Data — Absence / Scarcity / Abundance

Nowadays

My Future

Now, we know what our transformative technology should enable

It should lead to and keep a social status quo with abundance of data and abundance of freedom of expression

Technology Formulation (conditions)

- No violation of Physics Laws.

- No "Harry Potter-based Technology.

Step 6: Technology Formulation Canvas

Technology			
	Modes of Production	Modes of Distribution	Modes of Consumption	Modes of Revenue

Conventional

Unconventional

Step 7: Conceptual Prototype

- Since MT focuses on (far) future scenarios with envisioned not yet available transformative technologies, prototypes are conceived as conceptual compasses.

- The goal of prototyping is not instantiating a solution for a problem of today but envisioning a transformative technology not yet available considering the created scenarios.

- The Technology Formulation Canvas is taken as the specs of the not yet available technology.

- The prototypes are elaborated using drawings, conceptual pictures, cardboard models, etc,
  (I call it **Leonardo's approach**).

Thanks and Questions

In another universe parallel to our own.

A Little Exercise: Design the Future

In teams.

Choose 2 Social Constructs and 2 Resources.

Following the steps of the MT methodology:

- Start with a snapshot of the World Today
- Choose your Future in 2100 or beyond
- Consider all (Combinatorial) relations among Social Constructs and Resources
- Propose a Technology that enables your future (any technology would be valid as long as it doesn't break the laws of physics).
- Construct a narrative and present it explaining also the process you followed.