

## What is the meaning of Open Science?

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# WHAT IS THE MEANING OF OPEN SCIENCE?

**Benedikt Fecher, Wissenschaft im Dialog**

## ARGUMENTS

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1. There are (at least) three different and mutually exclusive understandings of open science.
2. Instead of asking what open science means, we should ask how meaning emerges in open science.

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### **2 parts of the presentation**

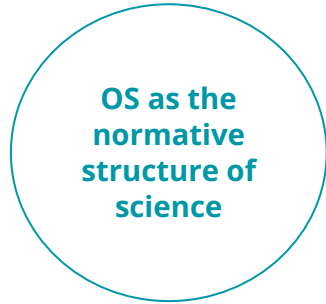
1. **How did different meanings of Open Science come about?**
2. **How does meaning emerge through open science?**

# HOW DID DIFFERENT MEANING OF OPEN SCIENCE COME ABOUT?

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**Open science means different things to different people.**



## HOW DID DIFFERENT MEANINGS OF OPEN SCIENCE COME ABOUT?

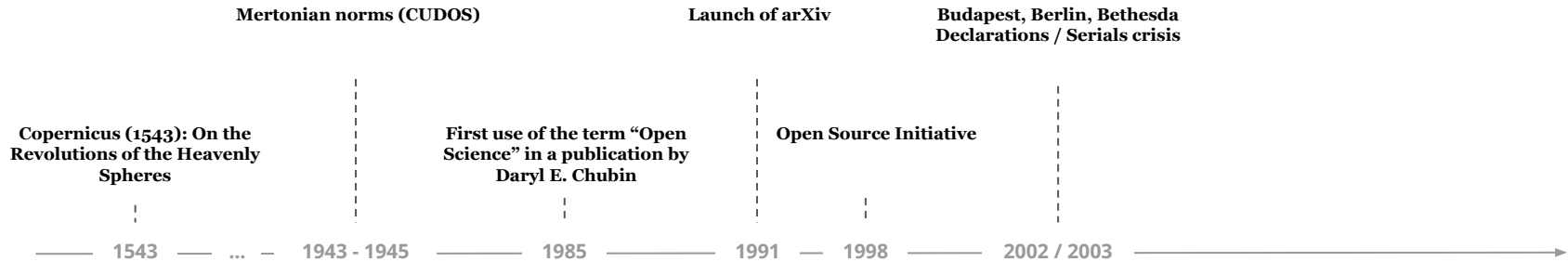
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### How did different meanings of open science come about?



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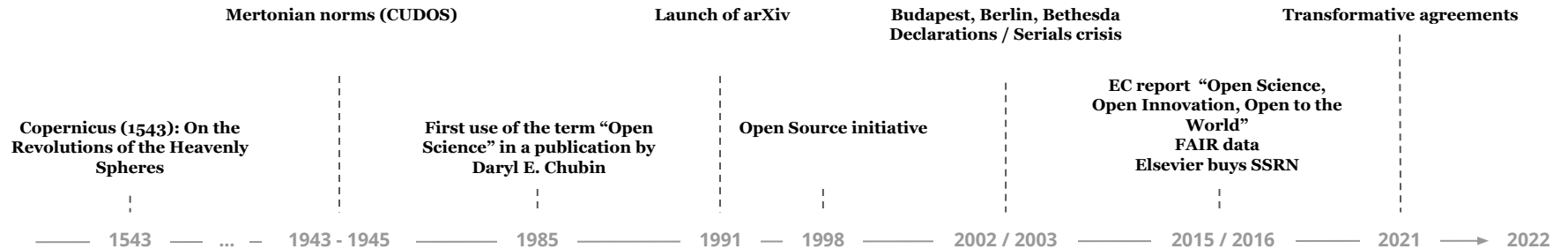
**NORMATIVE STRUCTURE**

**DEMOCRATIC MOVEMENT**



# HOW DID DIFFERENT MEANINGS OF OPEN SCIENCE COME ABOUT?

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NORMATIVE STRUCTURE

DEMOCRATIC MOVEMENT

NEOLIBERAL ENDEAVOR

## HOW DID DIFFERENT MEANINGS OF OPEN SCIENCE COME ABOUT?

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### MEANING

### FOCUS

### KNOWLEDGE

### CLAIM

#### **Normative Structure**

Focus on the scientific value of science.

Scientific knowledge as a club good

to protect science

#### **Democratic Movement**

Focus on the public value of science

Scientific knowledge as a public good

to free science

#### **Neoliberal Endeavor**

Focus on the commercial value of science

Scientific knowledge as a proprietary good

to market science

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**The three different meanings render the concept of Open Science meaningless.**

# HOW DOES MEANING EMERGE IN OPEN SCIENCE?

## HOW DOES MEANING OCCUR IN OPEN SCIENCE?

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### Conceptual remarks

**1. Meso-level (e.g., Leydesdorff 2005)**

*“[...] meaning is codified among human beings, that is, at the intersubjective level.” (Leydesdorff 20011: 393)*

**2. Process view (e.g., Elias 1990)**

*“web of interdependencies formed among human beings and which connects them: that is to say, a structure of mutually oriented and dependent persons” (Elias 1990:249)*

**3. Communication-based (e.g., Hepp & Hasebrink 2014, Dobusch et al. 2017)**

*“With the change of the media ensemble, completely new communicative figurations emerge or old ones fall away.” (Hepp & Hasebrink 2014: 356)*

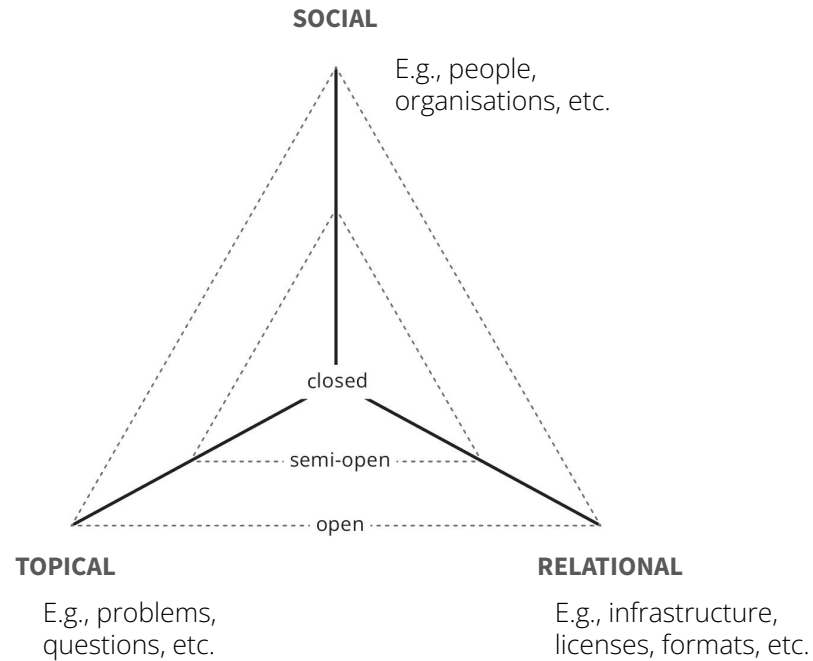
**Assumption: Openness is an epistemological condition for meaning making with three dimensions:**

- Social (*WHO* can take part in a conversation?)
- Topical (*WHAT* can be talked about?)
- Relational (*HOW* does the conversation take place?)

**Consequence:** Rather than asking, what Open Science should be, we ask what kind of openness helps to solve a problem.

## OPEN SCIENCE AS MEANING MAKING

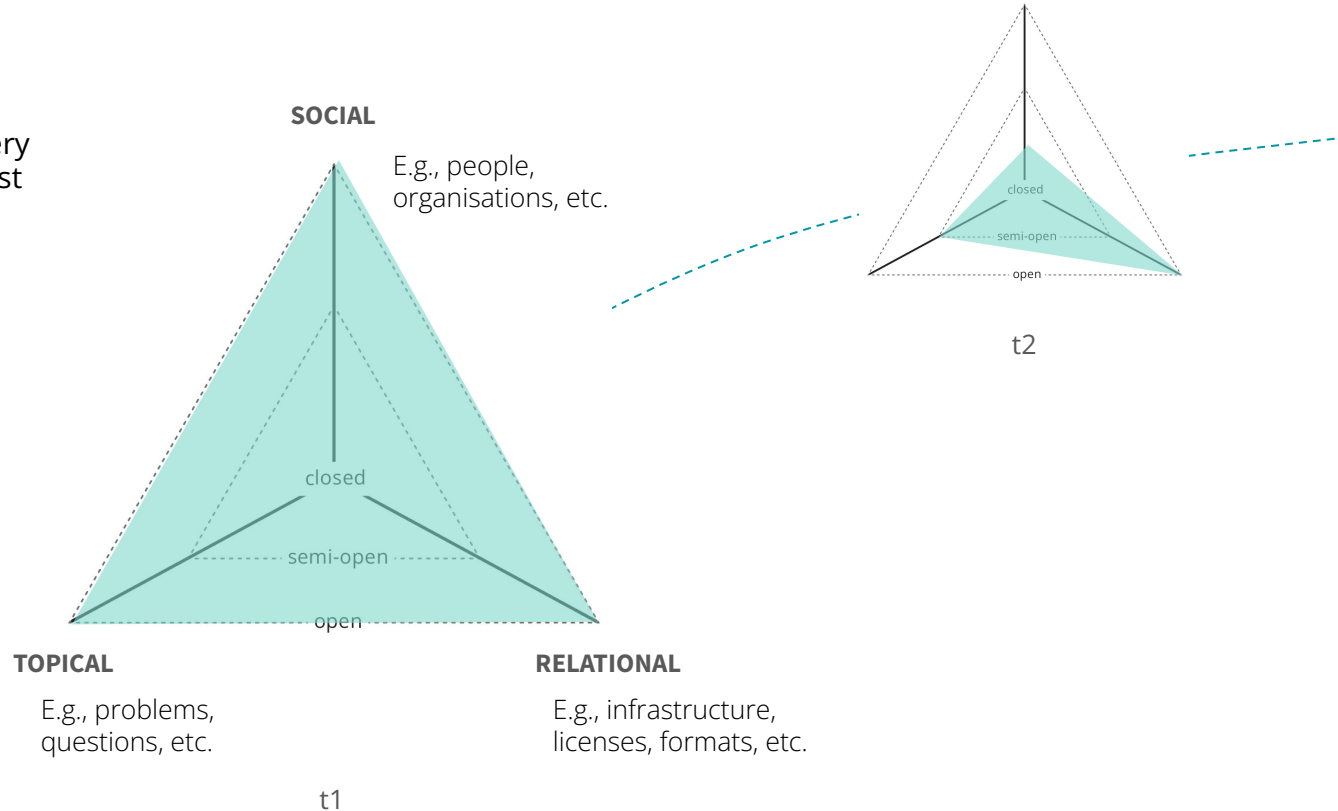
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# OPEN SCIENCE AS MEANING MAKING

## E.g., *open data*:

Anyone (social) can use data for every possible purpose (topical). Data must not be documented, described and archived in any particular manner (relational).

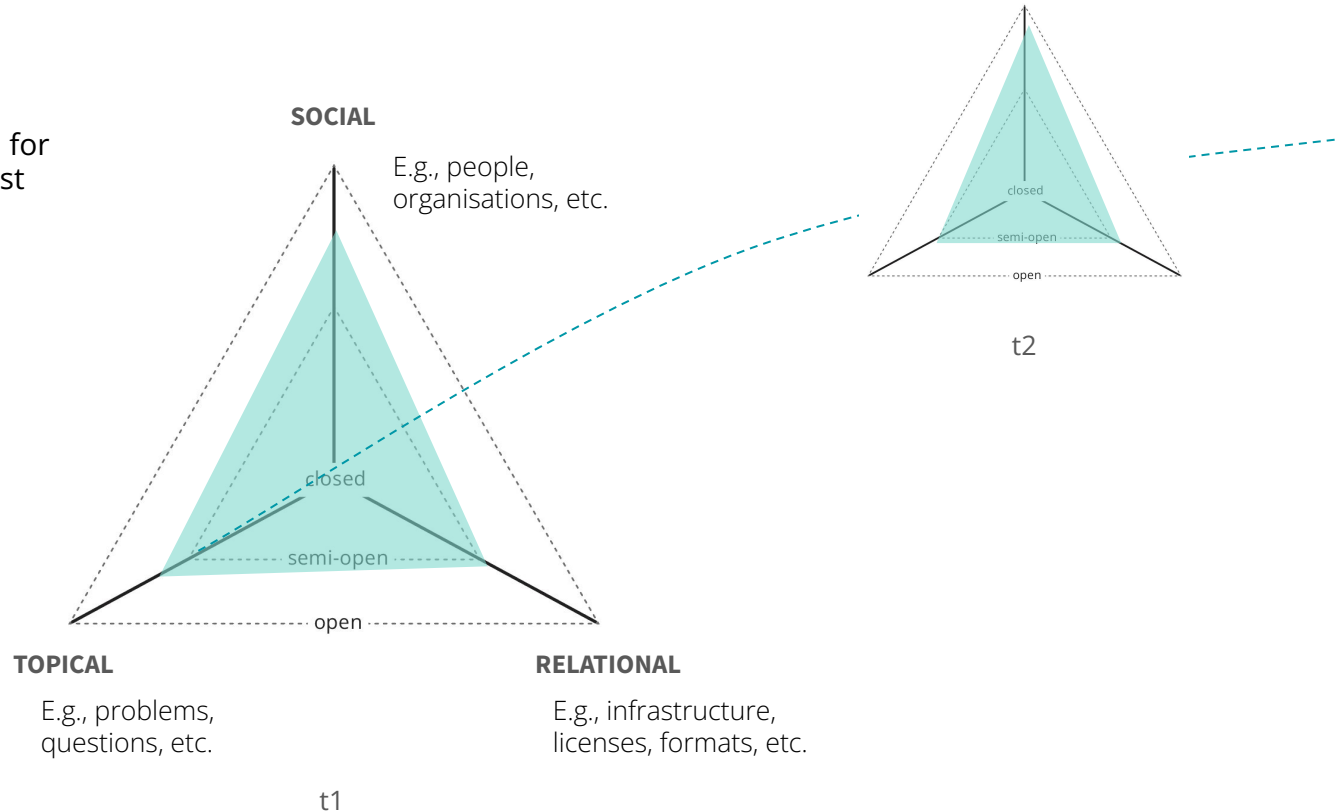




# OPEN SCIENCE AS MEANING MAKING

## E.g., FAIR data:

Specific people (social) can use data for specific purposes (topical). Data must be documented, described and archived in a particular manner (relational).



### **Case: What problem do transformative agreements solve?**

- TAs are a licensing solution to an infrastructure problem (relational)
- TAs solve the problem of access, but not of dependence from commercial entities (social)
- TAs discriminate against researchers that are not part of the deals (social)

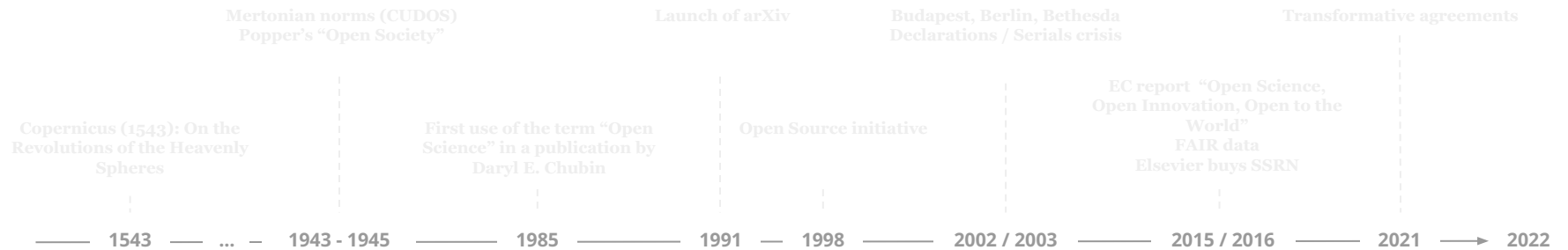
**TAs solve the access problem, but not the infrastructure problem. They are not transformative but rather conservative. Maybe, we did not address the right problem (topical).**

# TAKEAWAYS

# OPEN SCIENCE AS A HISTORY OF DISRUPTIONS?

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## How did different meanings of open science come about?

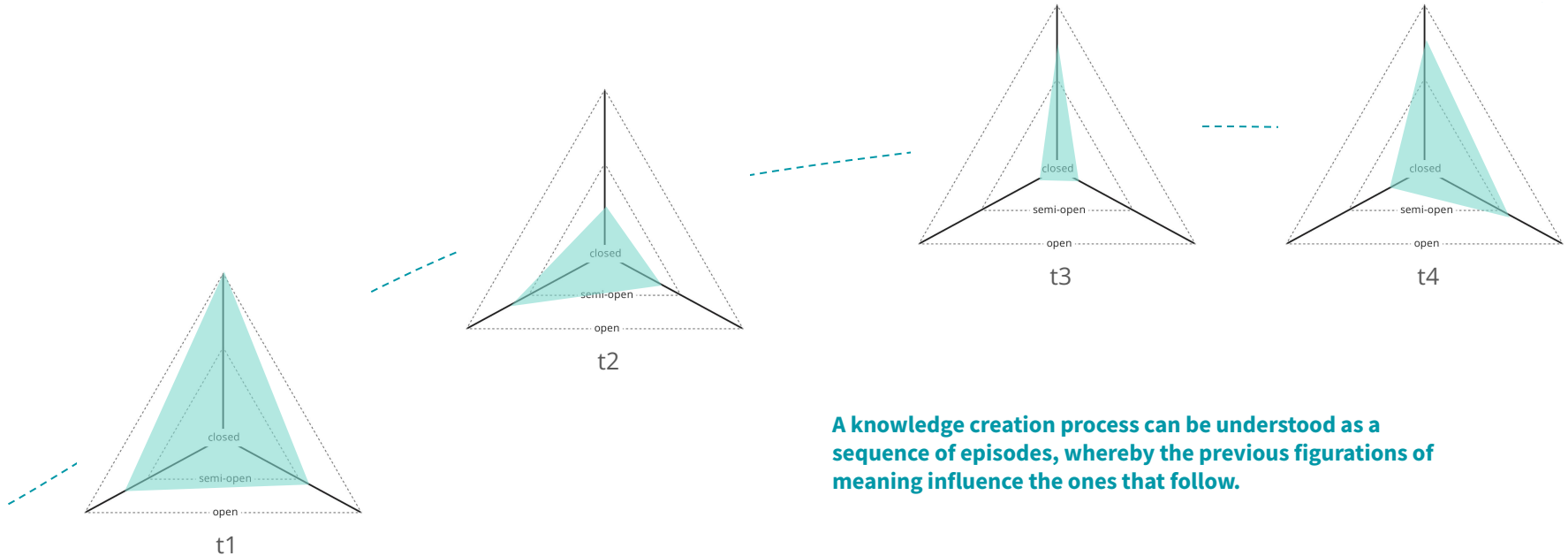


**A SOCIAL  
DISRUPTION ?**

**A RELATIONAL  
DISRUPTION ?**

**A TOPICAL  
DISRUPTION ?**

**Different figurations of meaning can occur in a knowledge creation process.**



**A knowledge creation process can be understood as a sequence of episodes, whereby the previous figurations of meaning influence the ones that follow.**

- **Pragmatic approach:** What problem can be solved through open science?
- Norms and values should inform “figurations” of openness
- If a figuration leaves the sphere of science, it is not just the norms of science that apply

**THANK YOU**

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