



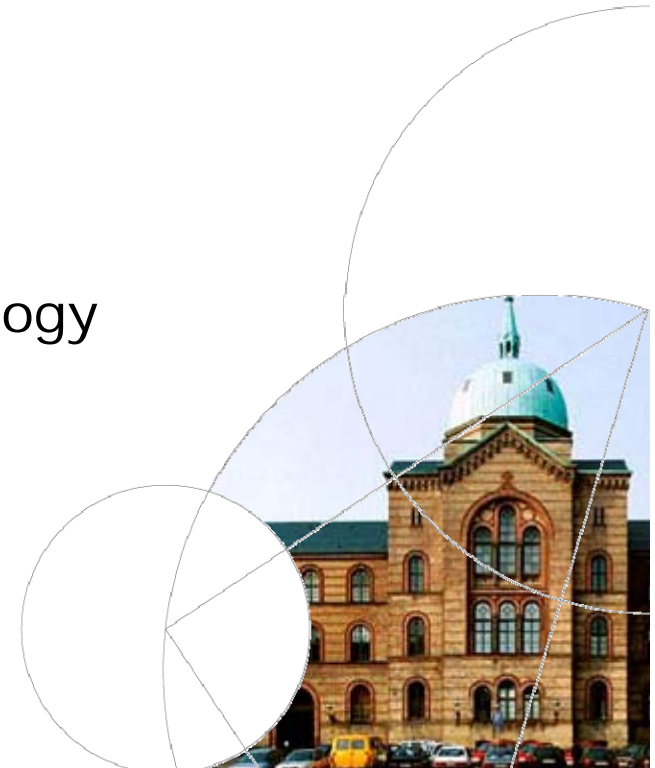
Faculty of Health and Medical Sciences

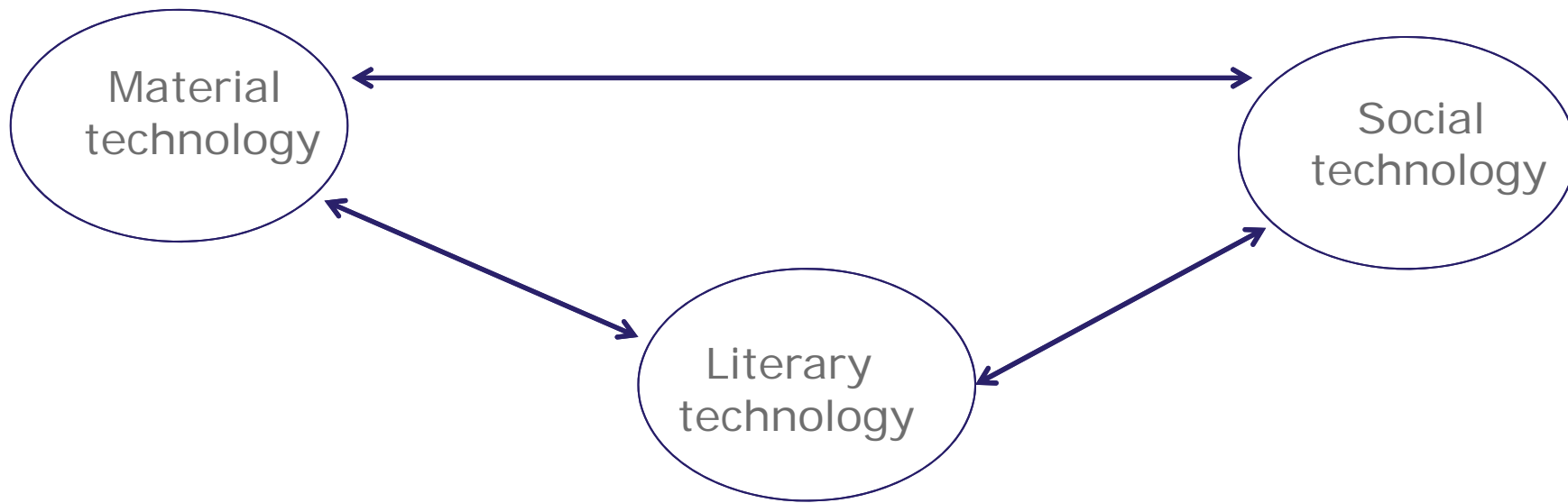


## Scientific community and e-Scholarship

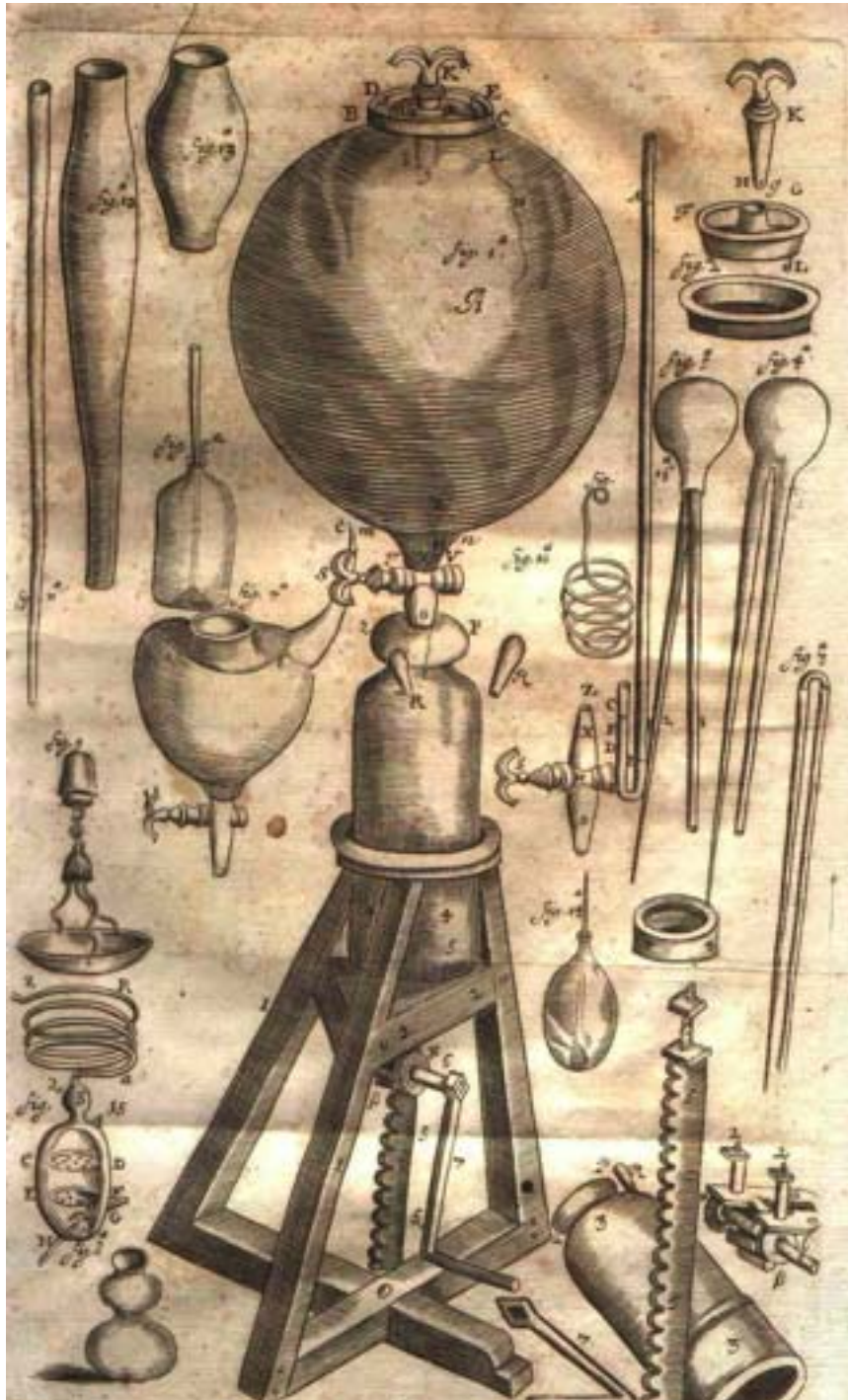
Annamaria Carusi

Centre for Medical Science and Technology  
Studies

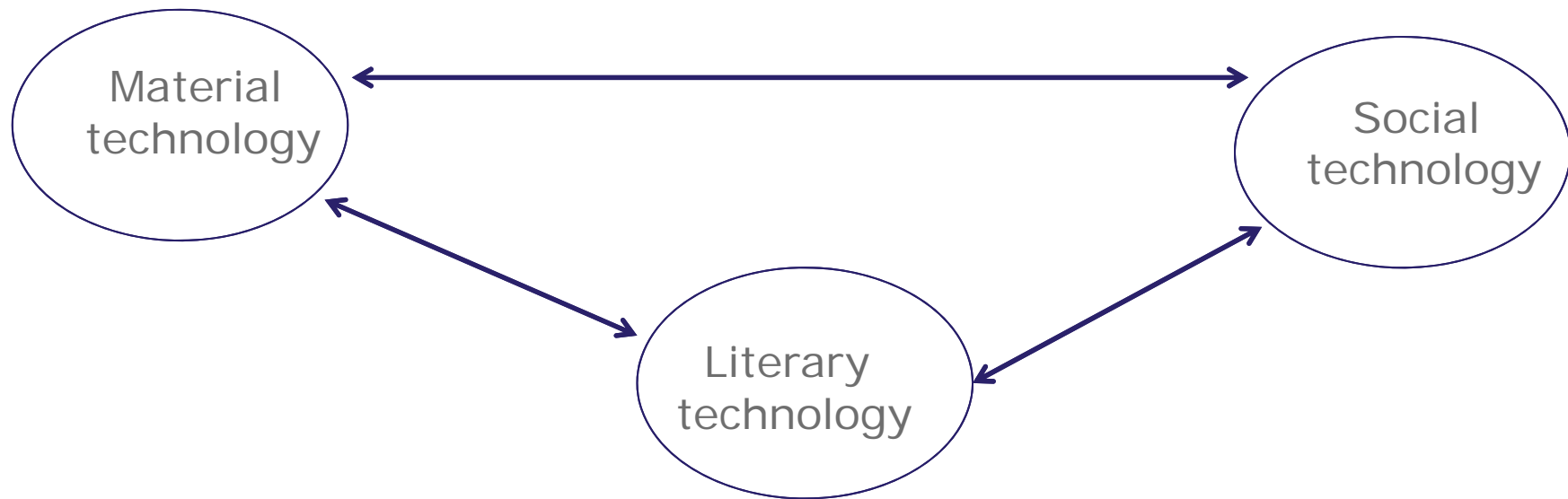




Style and rhetoric

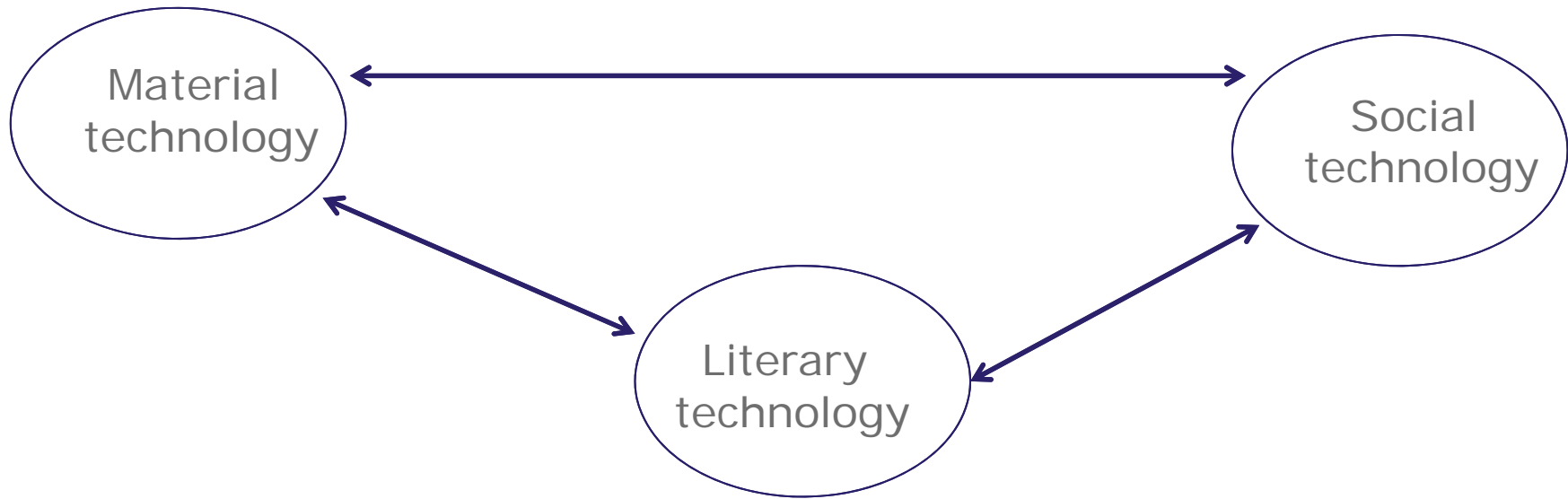


We took a large and lusty frog and having included him in a small receiver we drew out the air not very much and left him very much swelled and able to move his throat from time to time - though not so fast as when he freely breathed before the exsuction (extraction) of the air. He continued alive about two hours that we took notice of, sometimes removing from one side of the receiver to the other, but he swelled more than before, and did not appear by any motion of his throat or thorax (chest) to exercise respiration. But his head was not very much swelled, nor his mouth forced open. After he had remained there somewhat above 3 hours, for it was not 3 hours and an half, perceiving noe signe of life in him, we let in the air upon him, at which the formerly tumid (swelled) body shrunk very much, but seemed not to have any other change wrought in it and though we took him out of the receiver yet in the free air it self, he continued to appear stark dead nevertheless to see the utmost of the experiment having caused him to be carried into a garden and layd upon the grass all night, the next morning we found him perfectly alive again. (BP 18, fol. 127r)

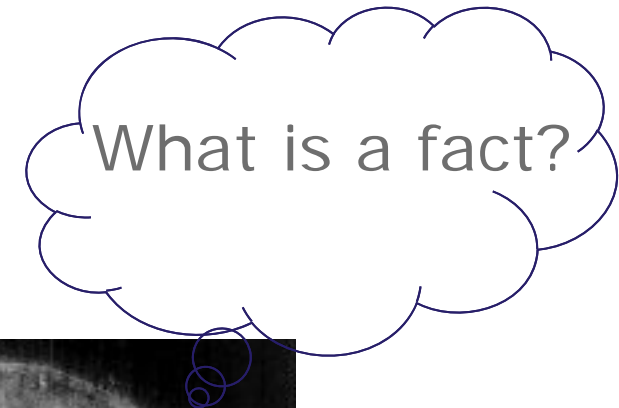


Style and rhetoric

Matters of fact → Universalism / Universal language



**Styles**



“What is a fact?”

A fact is **supposed to** be distinguished from transient theories as something definite, permanent, and independent of any subjective interpretation by the scientist”

(Fleck, *Genesis and Development of a Scientific Fact*, xxvii)

Thought style

‘... [the readiness for] directed perception, with corresponding mental and objective assimilation of what has been so perceived’ (GDSF, p.99)

A thought collective is a group of people/ scientists who share a common thought style

Multiplying witnesses → within a thought collective

An example:

## Ignaz Semmelweis (1819-65) and Childbed Fever

### WOMEN DYING IN CHILDBIRTH

Which women?

Women in one ward (First Maternity Division) often developed puerperal fever and died.

How many?

1844: 8.2%

1845: 6.8%

1846: 11.4%

As opposed to which other women?

Women in another ward (Second Maternity Division), and even women giving birth in the streets.

How many?

1844: 2.3%

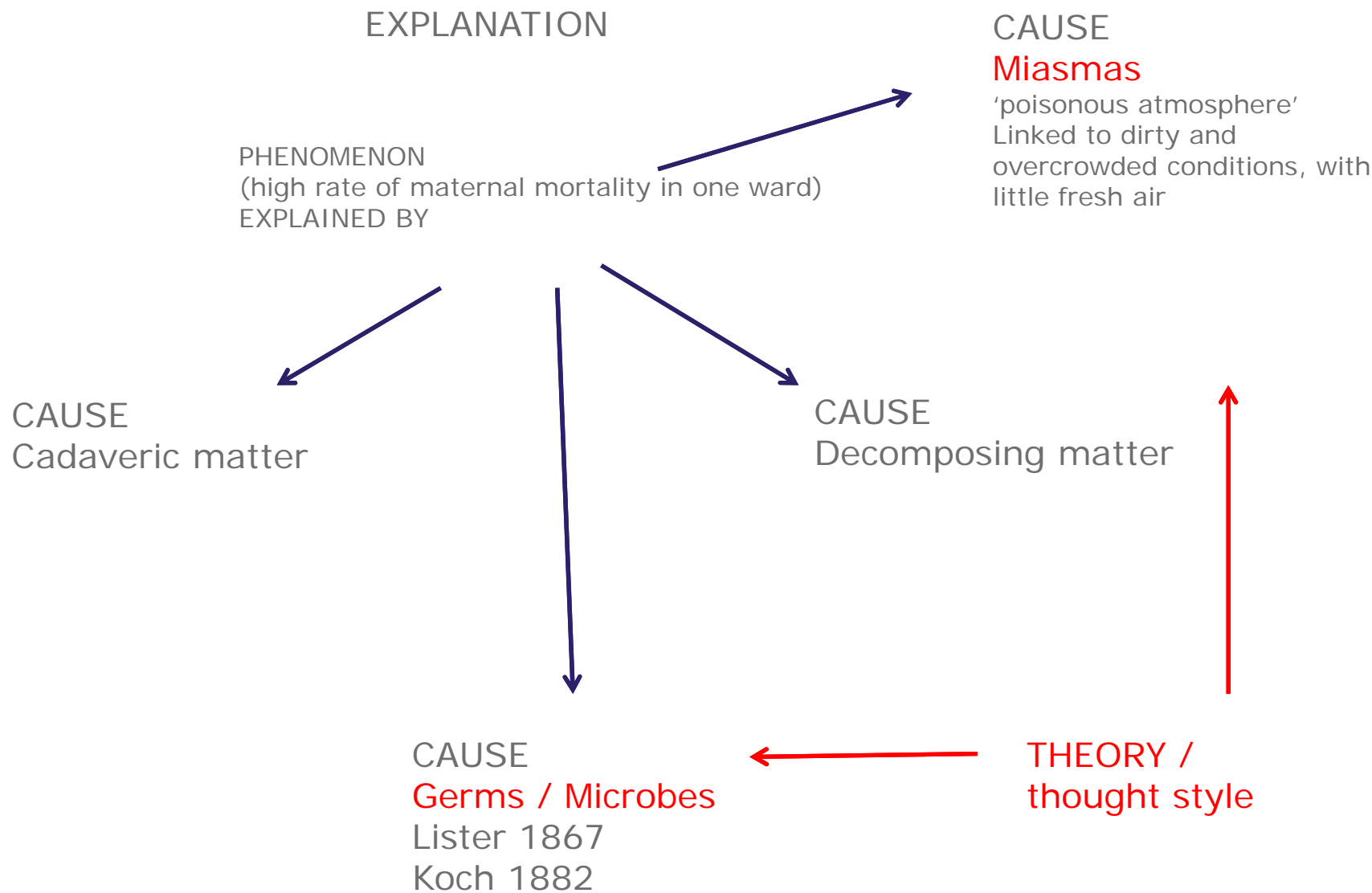
1845: 2.0%

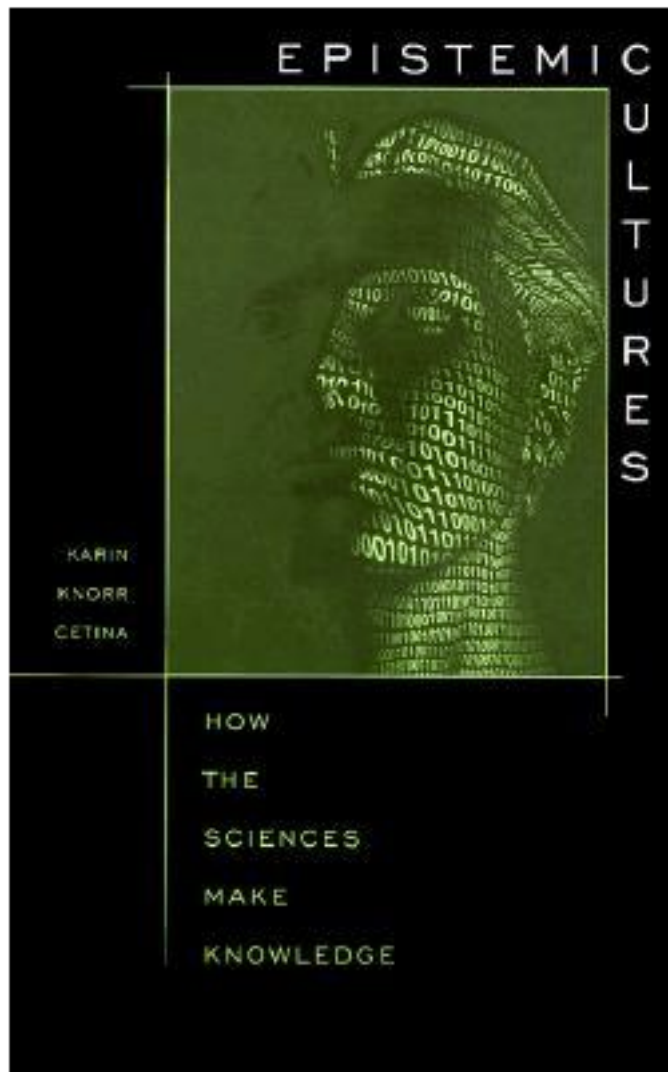
1846: 2.7%



## Why?

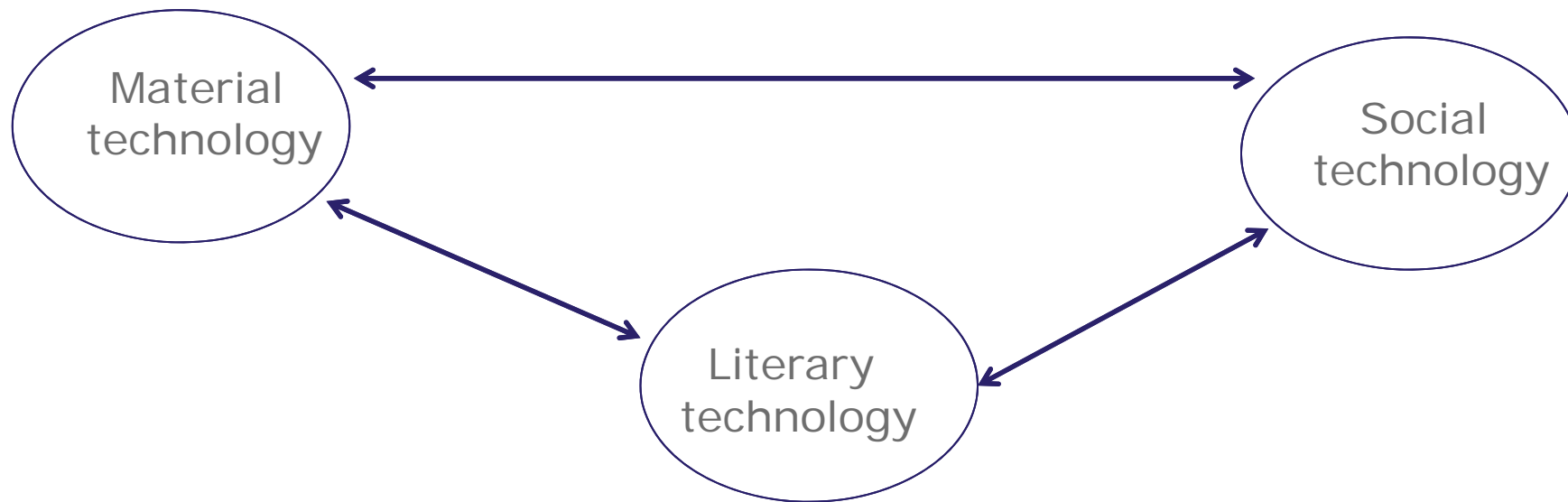
- “epidemic influences” [miasmas]
  - Observe (negative result)
- Overcrowding
  - Observe (negative result)
- Diet and general care
  - Observe (negative result)
- Rough examination by medical students
  - Observe (negative result)
- Priest with last sacrament
  - Test – do something different – observe (negative result)
- Position of delivery
  - Test – do something different – observe (negative result)
- ‘Cadaveric matter’ on hands of medical students
  - Test – observe (positive result)
- Any decomposing matter ....





An epistemic culture refers to 'those sets of practices, arrangements and mechanisms bound together by necessity, affinity and historical coincidence which, in a given area of professional expertise, make up how we know what we know' (Knorr-Cetina 2007: 363)





## Styles

What is the relation between styles and NGSP?  
Does NGSP promote some style/s over others?  
Does NGSP allow for a flourishing of styles?  
How does NGSP deal with changing/shifting/clashing styles?  
Or will NGSP create a uniformity that overcomes styles?  
At what cost?



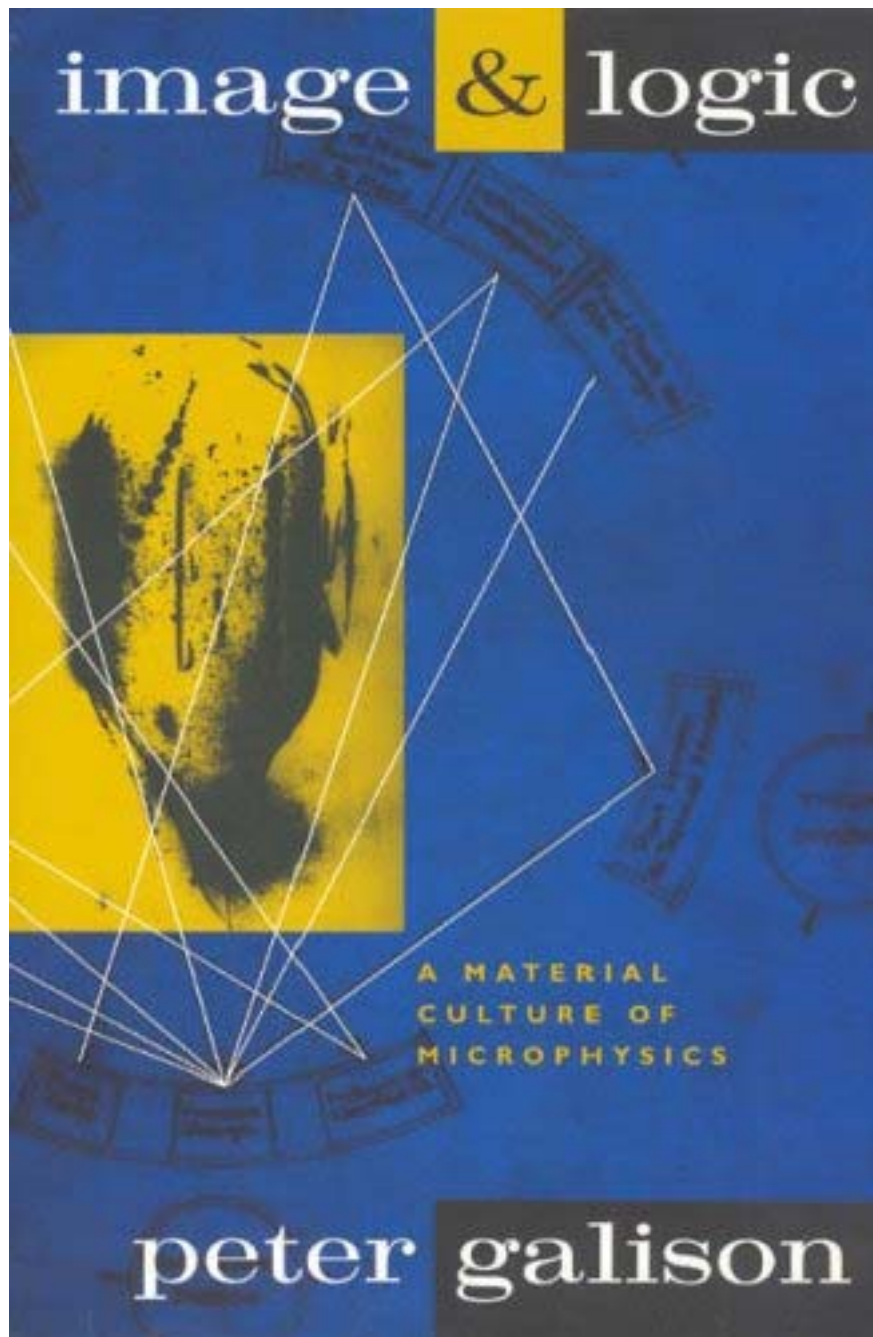
Trading Zone

Pidgins

Creoles

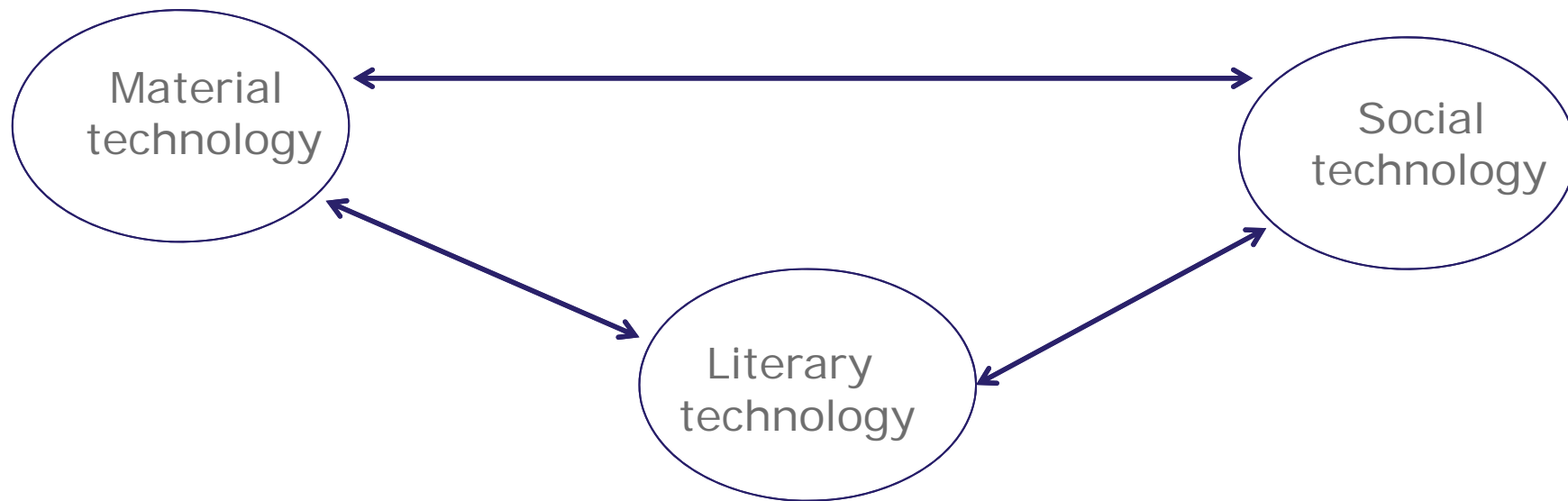






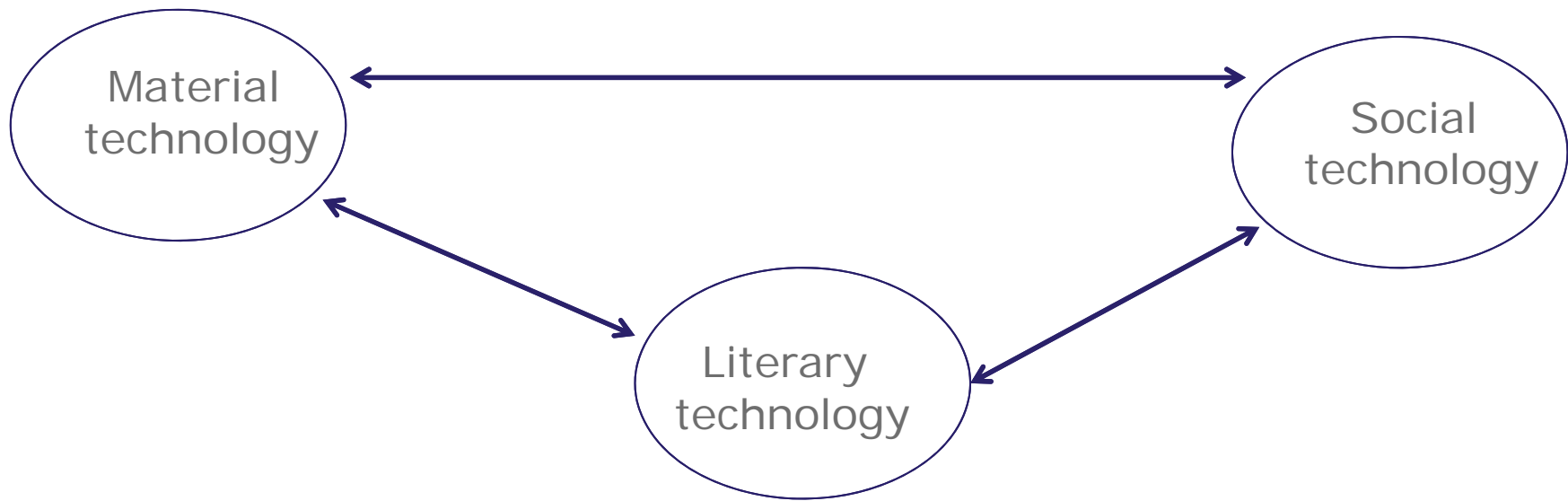
Trading zone: allows the coordination of activities across domains that otherwise do not have a lot in common.

Hybrid languages



## Hybrids

NGSP encourages the use of domain specific terminology  
How will NGSP deal with hybrids and hybridisation?  
Similar questions as for styles.



Discourse



# Hypotheses, Evidence and Relationships: The HypER Approach for Representing Scientific Knowledge Claims

Anita de Waard<sup>1,2</sup>, Simon Buckingham Shum<sup>3</sup>, Annamaria Carusi<sup>7</sup>, Jack Park<sup>3</sup>,  
Matthias Samwald<sup>4,5</sup>, Ágnes Sándor<sup>6</sup>



## Epistemic Modality and Knowledge Attribution in Scientific Discourse: A Taxonomy of Types and Overview of Features

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## Identifying the Epistemic Value of Discourse Segments in Biology Texts

Anita de Waard<sup>(1)</sup> Paul Buitelaar<sup>(2)</sup> Thomas Eigner<sup>(3)</sup>

Concept	Values
Value	0 - Lack of knowledge
	1 – Hypothetical: low certainty
	2 – Dubitative: higher likelihood but short of complete certainty
	3 – Doxastic: complete certainty, reflecting an accepted, known and/or proven fact.
Basis	R – Reasoning ( <i>‘Therefore, one can argue...’</i> )
	D – Data ( <i>‘These results suggest...’</i> )
	0 – Unidentified ( <i>‘Studies report that...’</i> )
Source	A - Author: Explicit mention of author/speaker or current paper as source ( <i>‘We hypothesize that...’; ‘Figure 2a shows that...’</i> )
	N - Named external source, either explicitly or as a reference ( <i>‘...several reports have documented this expression [11-16,42].’</i> )
	IA - Implicit attribution to the author ( <i>‘Electrophoretic mobility shift analysis revealed that...’</i> )
	NN – Nameless external source ( <i>‘no eosinophil-specific transcription factors have been reported...’</i> )
	0 – No source of knowledge ( <i>‘transcription factors are the final common pathway driving differentiation’</i> )

From De Waard & Maat, Epistemic Modality and Knowledge Attribution, p.50

Table 1: Proposed classification for epistemic modality and knowledge attribution

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# MOLECULAR STRUCTURE OF NUCLEIC ACIDS

## **A Structure for Deoxyribose Nucleic Acid**

**W**E wish to suggest a structure for the salt of deoxyribose nucleic acid (D.N.A.). This structure has novel features which are of considerable biological interest.

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## **Molecular Configuration in Sodium Thymonucleate**

While the X-ray evidence cannot, at present, be taken as direct proof that the structure is helical, other considerations discussed below make the existence of a helical structure highly probable.

# Creating digital abstracts in Doméo Courtesy of Tim!

://www.ncbi.nlm.nih.gov/pmc/articles/PMC2700002/ Highlight Clip Annotate Analyze

Manual Annotation Creation NCBI Resources How To

↔ **Spinal muscular atrophy (SMA) is recessive motor neuron disease that affects motor neurons in the anterior horn of the spinal cord. SMN2** ubiquitously expressed, motor neurons are more sensitive to the reduction in SMN than other cell types. We have previously generated mouse models of SMN2

PostIt Qualifier Antibody **Micro Publication**

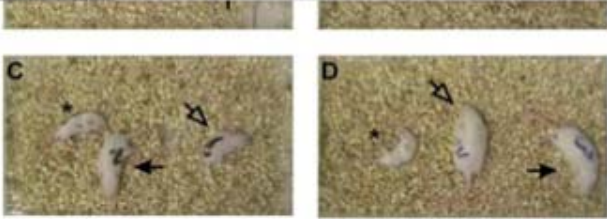
**Statement** Source

Spinal muscular atrophy (SMA) is recessive motor neuron disease that affects motor neurons in the anterior horn of the spinal cord. SMA results from the reduction of SMN (survival motor neuron) protein

**Supported By** Challenged By Qualified By

Fulceri F, Bartalucci A, Paparelli S, Pasquali L, Biagioni F, Ferrucci M, Ruffoli R, Fornai F **Motor neuron pathology and behavioral alterations at late stages in a SMA mouse model.** Brain research. 2012 Mar 9 ;Vol 1442 :66-75 PubMed The DOI System

**Image Picker** References Picker PubMed Search

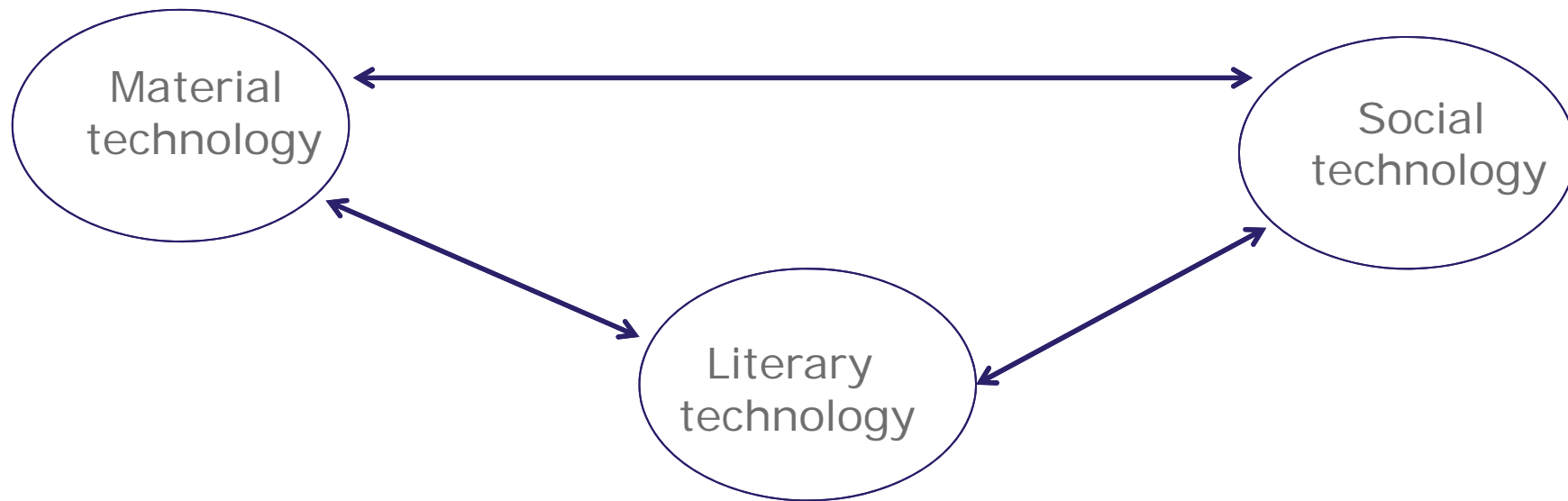


**Figure 2**  
 Add as data

**A**

14

- SMN2<sup>+/+</sup>;SMNΔ7<sup>+/+</sup>;mSmn<sup>-/-</sup>
- SMN2<sup>+/+</sup>;SMNΔ7<sup>+/+</sup>;mSmn<sup>+/-</sup>
- SMN2<sup>+/+</sup>;SMNΔ7<sup>+/+</sup>;mSmn<sup>+/+</sup>



## Discourse

What difference will NGSP make to to pragmatics of discourse?  
How does it change the dynamics of implicit/actual authorship?  
How will it re-shape epistemic value attribution?  
Will it overcome differentiations that have existed in the past  
(for example, gender, culture?) / will it create new differentiations?

**The  
Economist**

OCTOBER 19TH-25TH 2013

[Economist.com](http://Economist.com)

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The meaning of Sachin Tendulkar

**HOW**  
**SCIENCE**  
**GOES**  
**WRONG**

99  
Einsteinium



Faculty of Health and Medical Sciences



Thank you!

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