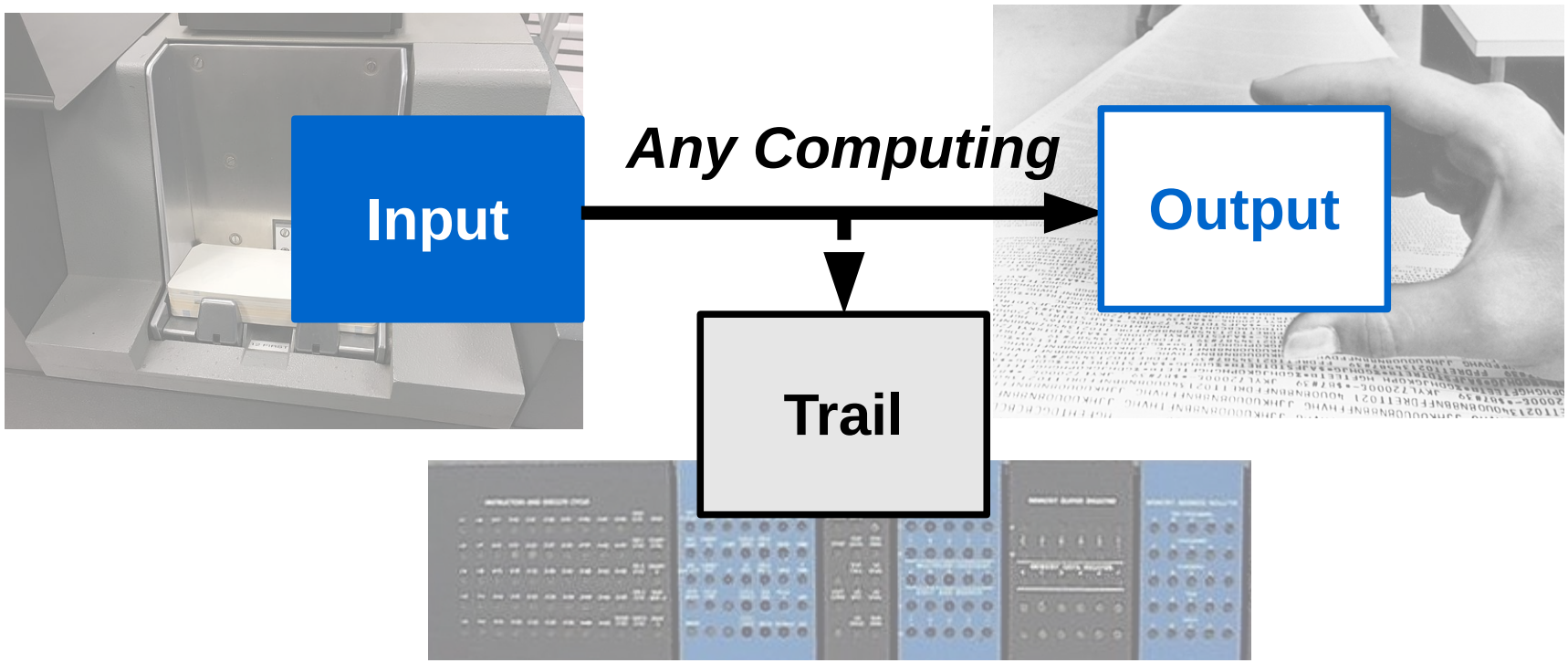
from computing to interaction

social contracts for smart networks

part I

mezzònomy – may 2017 – revised in july

What is possible to achieve by mechanical means?



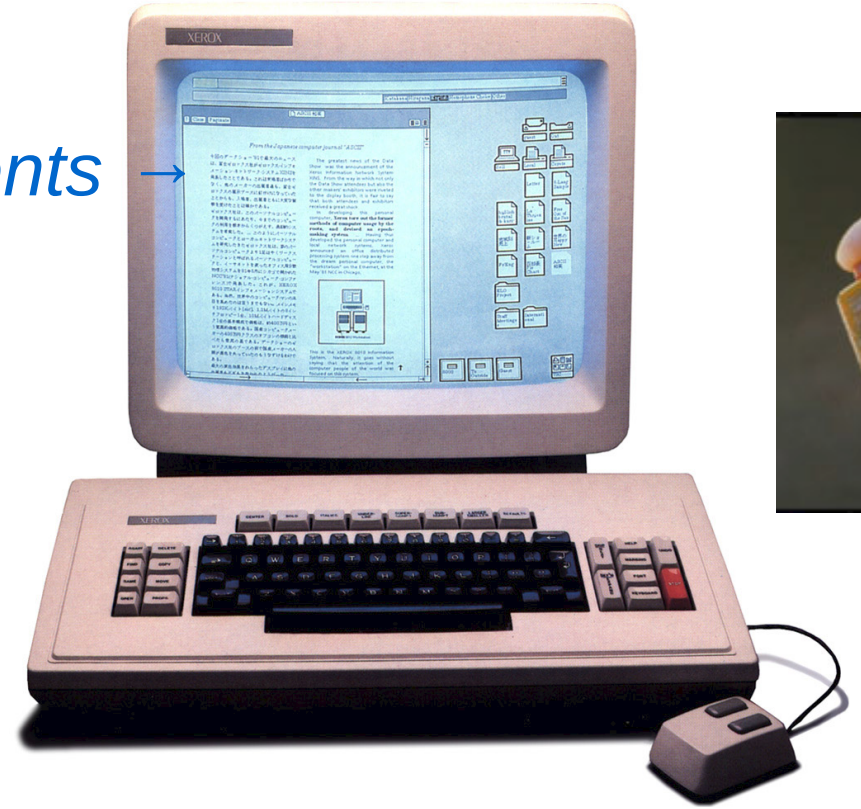
Computing ***Output*** *is a* ***function*** *of* ***Input***

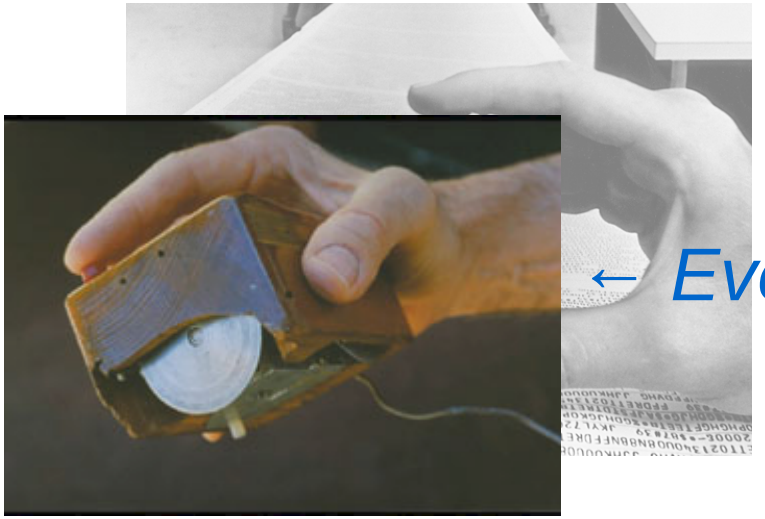
if and only if

it ***terminates*** *and has no* ***error*** *in* ***Trail***

Emergence of interaction

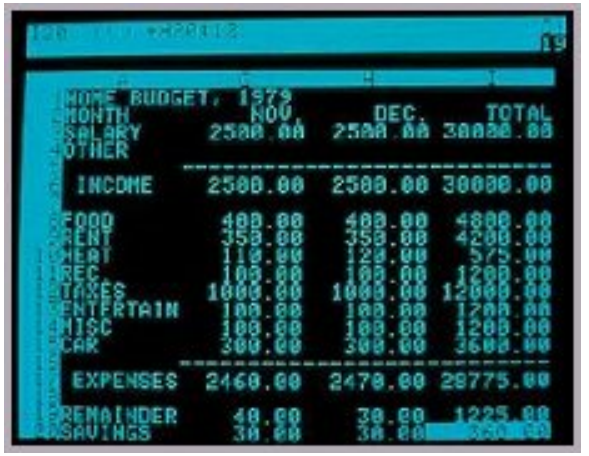
Elements →





← *Events*

Spreadsheets →



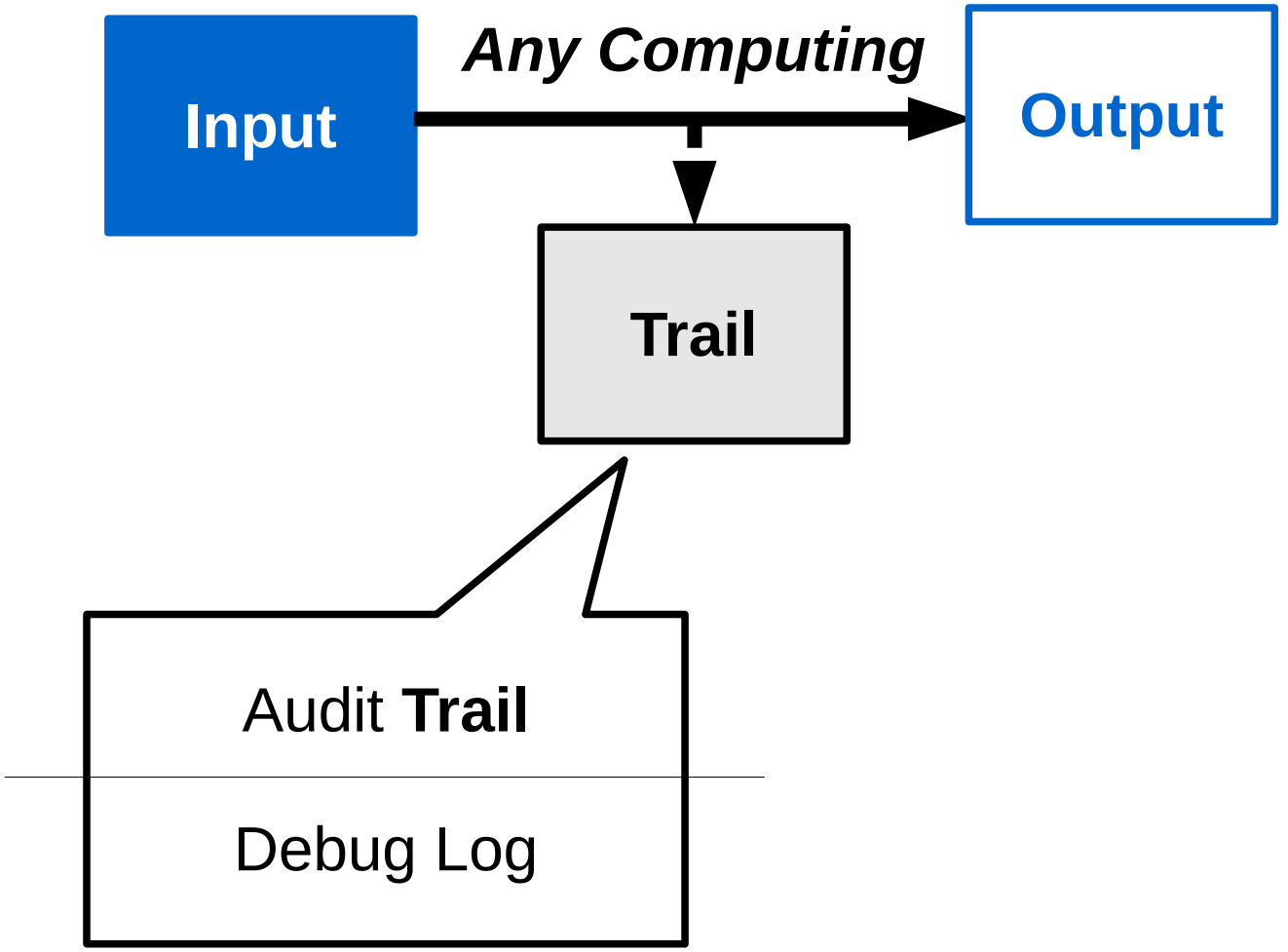
Pain of interaction

« *Interaction machines have been criticized as an unnecessary Kuhnian paradigm shift. But Gödel, Church, Turing, and more recently Milner, Wegner and Van Leeuwen have argued that this is not the case.* »
Computation Beyond Turing Machines – P.Wegner, 1993

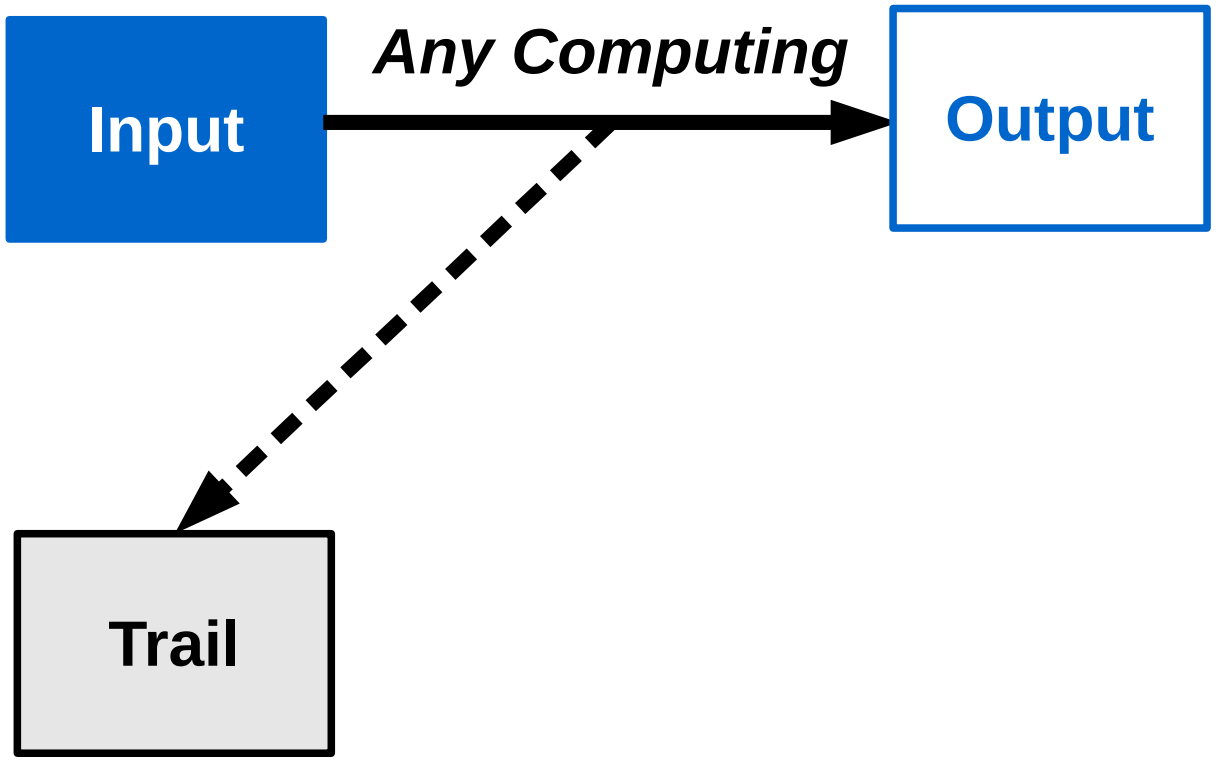
← *Complex theoritical issue*

To solve that issue → *Reverse the computational model*

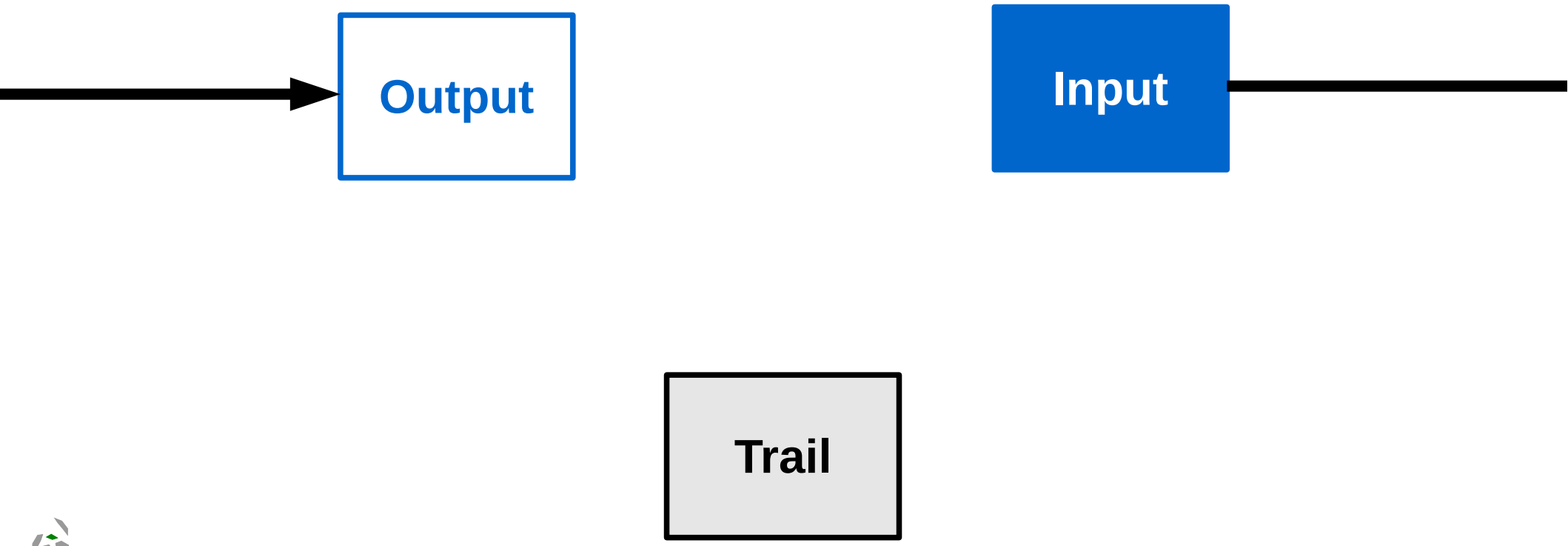
Get the computational model



Push it on the right

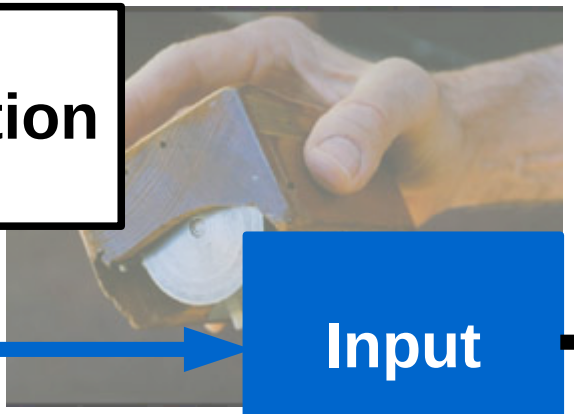


through the edge reversal...



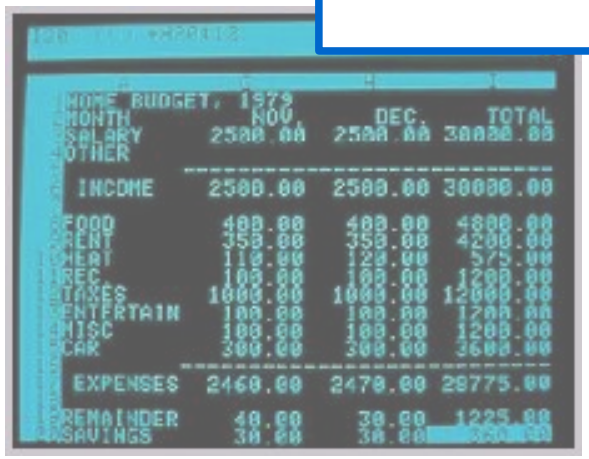
Our spreadsheet interaction model

Intention



Output

Input

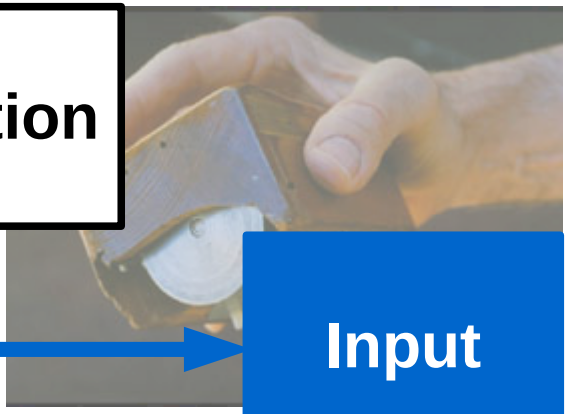


Trail

Regular Computing
Always ***terminates***
with no ***error***

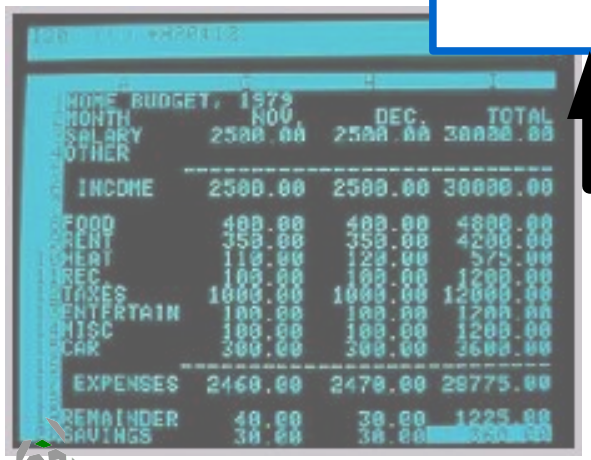
Our Regular Interactive Model

Intention



Input

Output

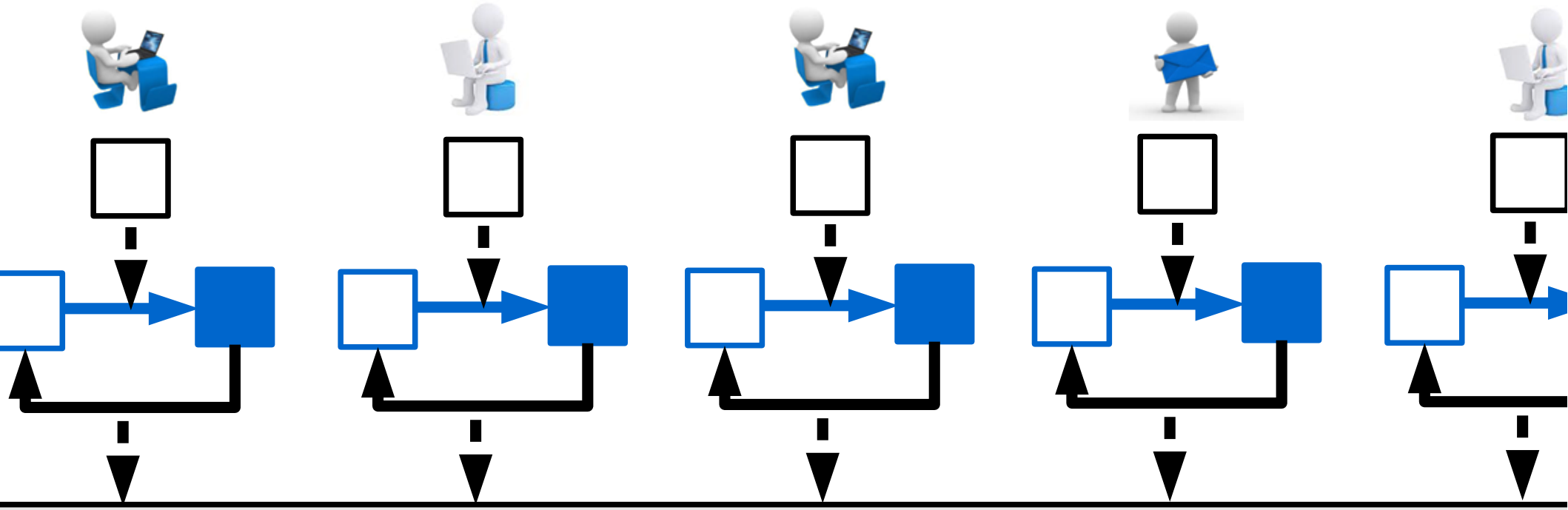


Trail

2010 patent identifies value to human feedback

Can be replicated *ad libitum*...

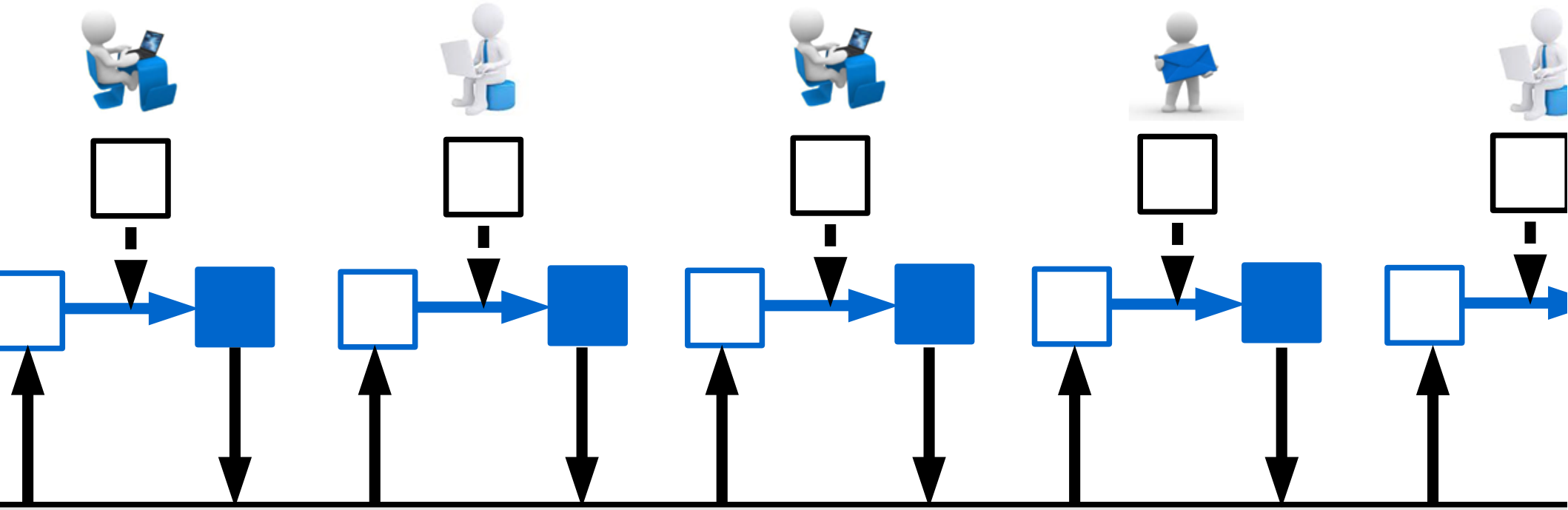
→ *with no possible interaction between users*



Trail

Regular Cooperative Model

→ *what if the trail was the « story » of all inputs?*



Regular Trail Computing

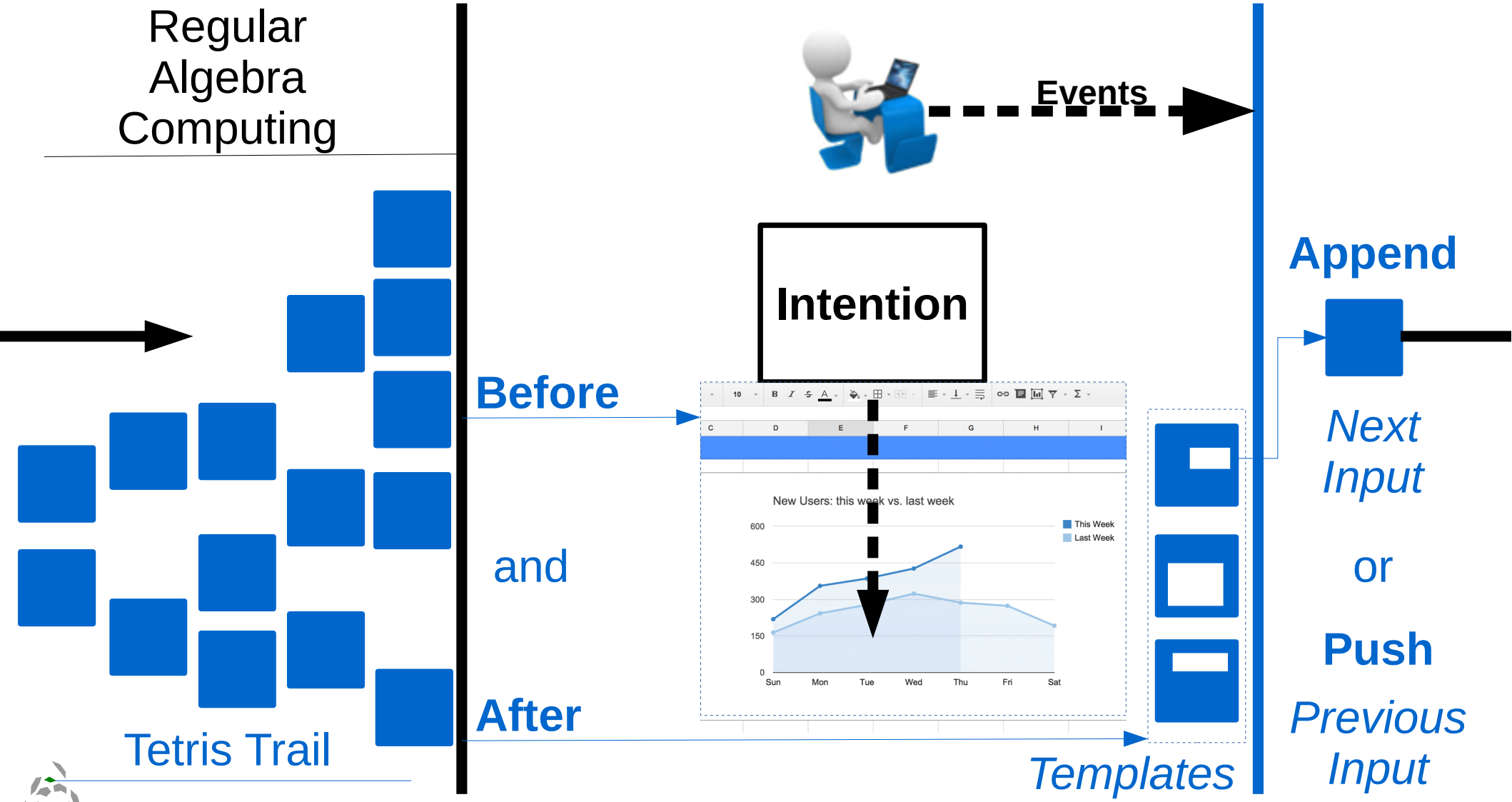
Regular Trail Computing

- Every **appended** input of any user is:
  - Timestamped and Signed
  - Never replicated nor altered
  - Stored for eternity when **pushed** by others as « *coins* »
- Any **output** presented to any user :
  - Issued from a regular computing on the T**rail** of all **appended** inputs with respect to user's intention:

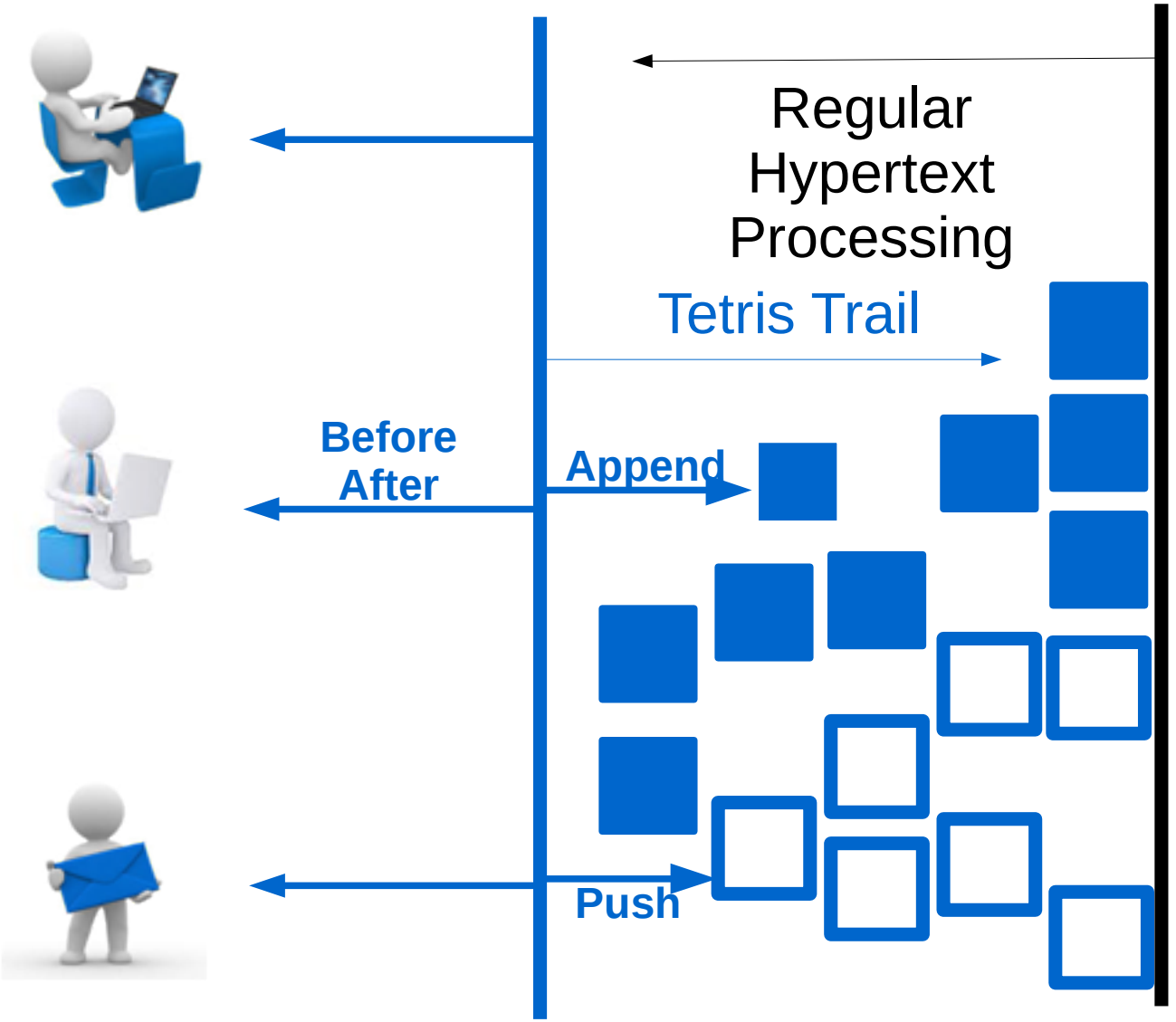
$$\textbf{Output} = \text{Regular}_{\text{User}}(\textbf{Trail})$$

  - **Output** embeds a set of **elements** to be displayed or printed called **before**
  - **Output** embeds a set of **templates** issuing next **input** from user events when displayed, named **after**.

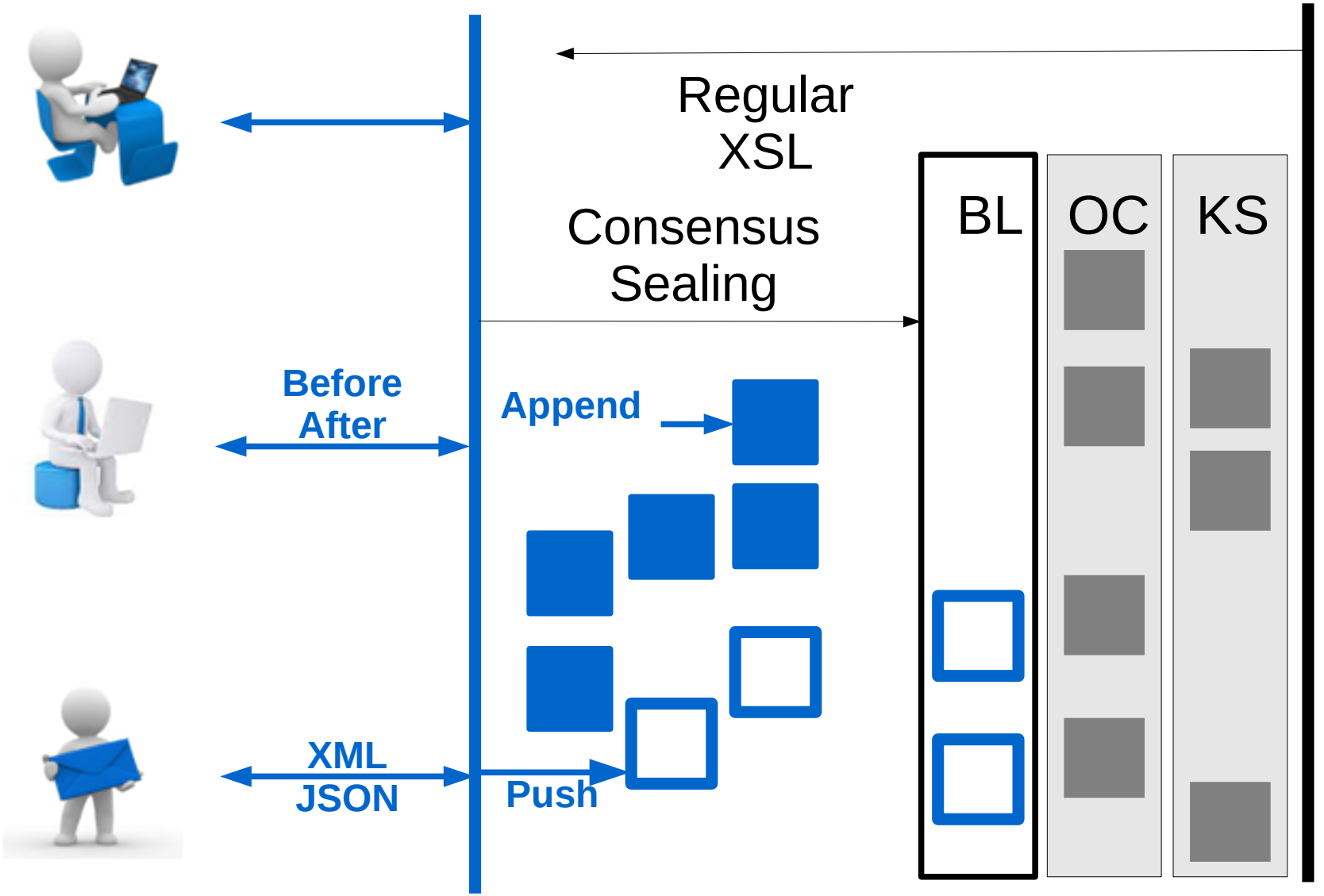
Regular Programming Interface



Regular Cooperative Hypertext



Regular Blockchain Hypertext



Prototyped with success in 2016, funded in 2017, delivered in 2018

Regular Blockchain Hypertext

Our technology allows great numbers of users, distributed over the internet to :

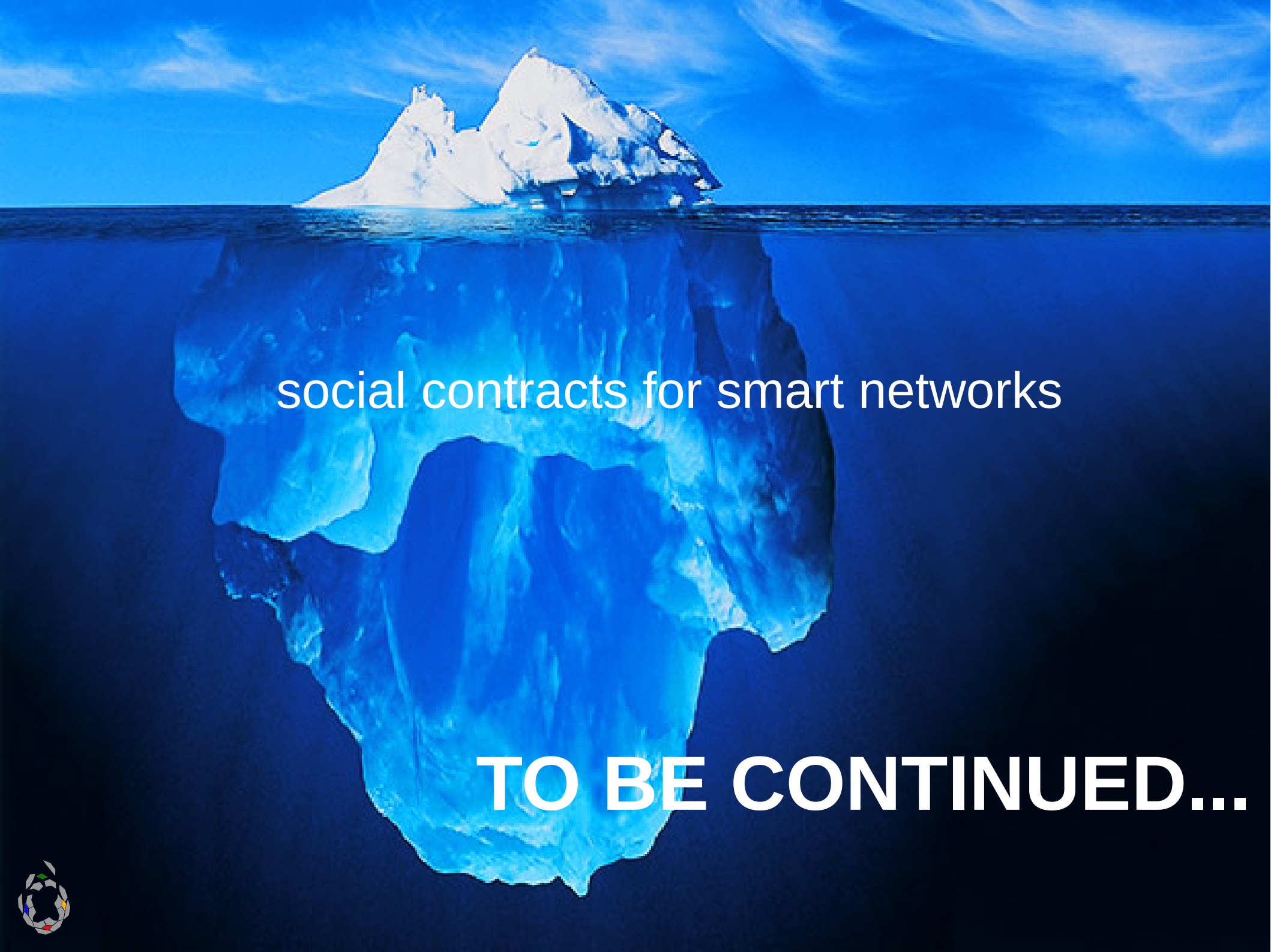
- Share feedbacks on the same **spreadsheets**
- Agree on « *valuable feedbacks* » (= *coins*)
- Keep record of all coins – *no crypto-currency*
- Publish **spreadsheets** without divulging coins
- Certifiate any spreadsheet with its coins

*Method for **partial** learning **sharing** of a software application.*

*WO **2012**076477 A1*

Regular Blockchain Hypertext for **spreadsheets** and **smart-contracts** will be delivered in 2018.

Its use will be **extended to any document** in 2019 and then to any content (3D, video, sound, data lakes, …).


social contracts for smart networks
TO BE CONTINUED...