



seminari**bordoni**

# Cloud distribuito, supercalcolo e web 3.0

23 maggio 2019

Oratorio del Gonfalone, Roma

Con il patrocinio del Ministero dello sviluppo economico



**FUB**

Fondazione Ugo Bordoni  
Ricerca e Innovazione

**Antonio Sassano**

Fondazione Ugo Bordoni

23 maggio 2019



**Research Scientist**

*INRIA – Ecole Normal Superieur Lyon*



**CEO & Co-Founder**

***iEx.ec** Blockchain Computing*

*Distributed Computation, IOT, BlockChain, Data Market*

# Key question:

## Centralized or Distributed Web ?

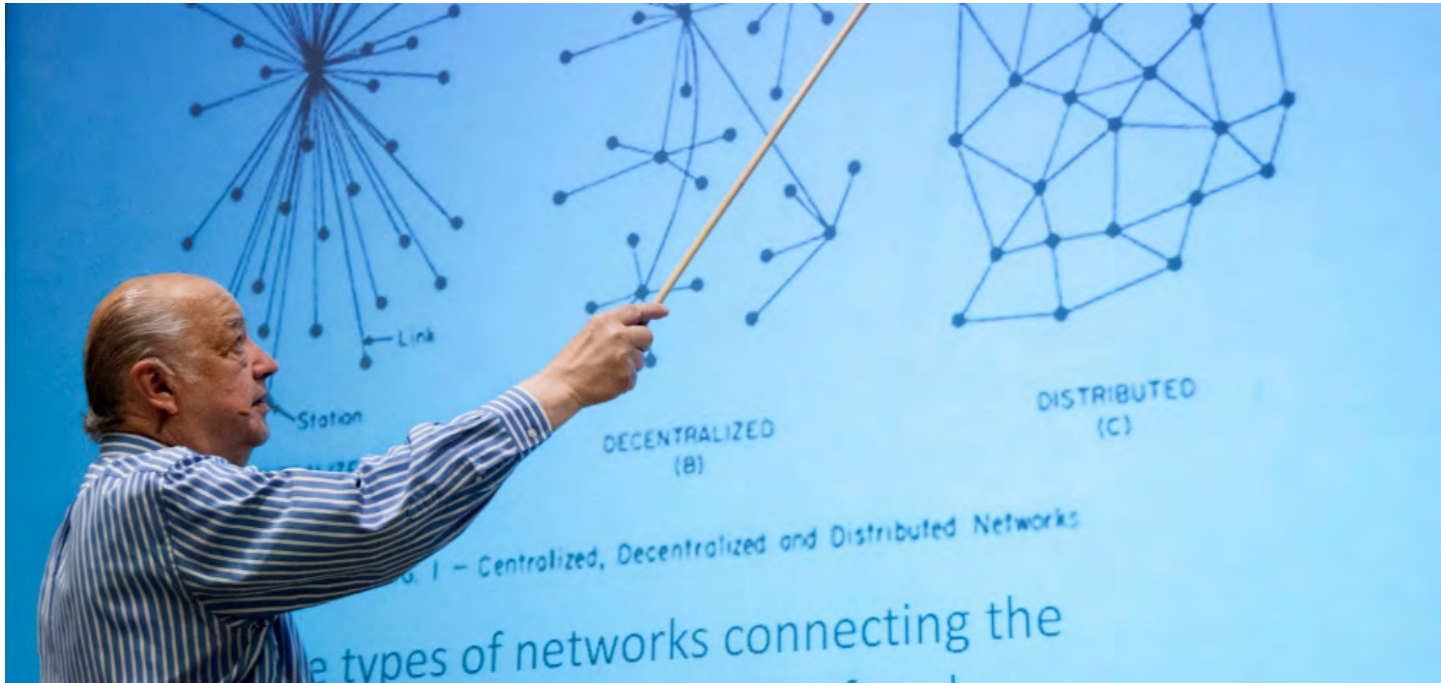
**5G + AI** require and enable a **Distributed Web**:

- ❑ **Edge Computing**
- ❑ **IOT**: microtransaction, data-ownership
- ❑ **Massive (local) data «crunching» (local AI)**
- ❑ **CyberSecurity** by «**encrypt and distribute**»
- ❑ **Every computer as a «cell» of a Worldwide Supercomputer and of an Interplanetary File System (!)**

**But.. Centralization** seems very popular nowadays:

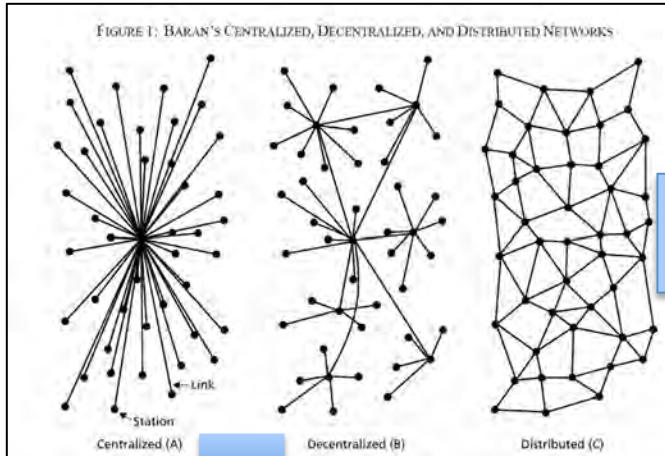
- ❑ **Few Certified Data Center**
- ❑ **Few Super-Computers**
- ❑ **Few Super-Platforms**: «Everything as a Service»

# 1962 - Paul Baran dreams the Internet



**Paul Baran and the Origins of the Internet**

# Centralization hijacked Baran's Dream



## **Baran's Dream:**

- Distributed Internet;**
- No *Single Point of Failure*;**
- Resilient**
- Sustainable (Green)**
- Every node «matters»**

## **Centralization (Internet «as is»):**

- Highly Concentrated: AWS (S3) 33% Market Share**
- Catastrophic Outages; CyberAttacks; Energy-hungry**
- .... and ... Who Controls the Web?**



# My question to Gilles Fedak

***Is Paul Baran's dream coming true?***