

Collective Intelligence Talks

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4 nov 2025

Cyberia on the Edge

Edge Perspective

History

Origins: Aristotel	wisdom of the crowds
18th century: N. Condorcet	jury theorem
20th century: D. Engelbart	collective iq: augmentation via computers
20th century: M. Dorigo	swarm intelligence
21th century: A. Wooley	c-factor

Economics

free markets
incentive logic
attention allocation

Game Theory

equilibrium models
strategic interactions

Distributed Computing

coherence
safety
liveness

Methods

simple local rules producing global order

Schelling point

Coordination without communication

Longest chain rule

Temporal aggregation of effort for consistency

Random Walk

Local exploration converge to global equilibrium

Bayesian updates

Beliefs propagation convergence

Stigmergy

Self-reinforcing feedback and memory

Conway's game of life

Emergence from local determinism

Many more

Apps

Darpa

strategic science
swarm-enabled tactics
human-machine teaming

Nasa

crowdsourcing
swarm robotics
self-assembling structures
sensor webs

Cyberia: planetary scale superintelligence

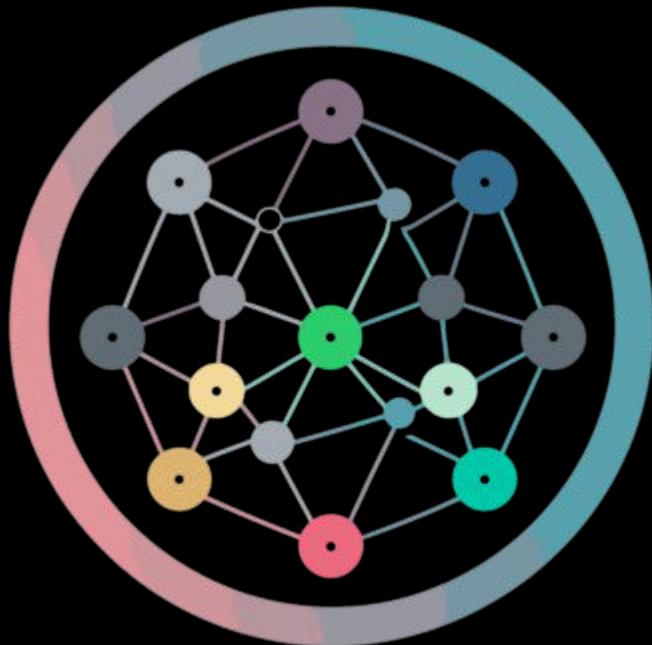
Collective Focus Theorem



proves that
token-weighted random walks
in fully authenticated graphs
converges to
unique stationary distribution

Fully Authenticated Graphs

tx with 3 arguments of knowledge



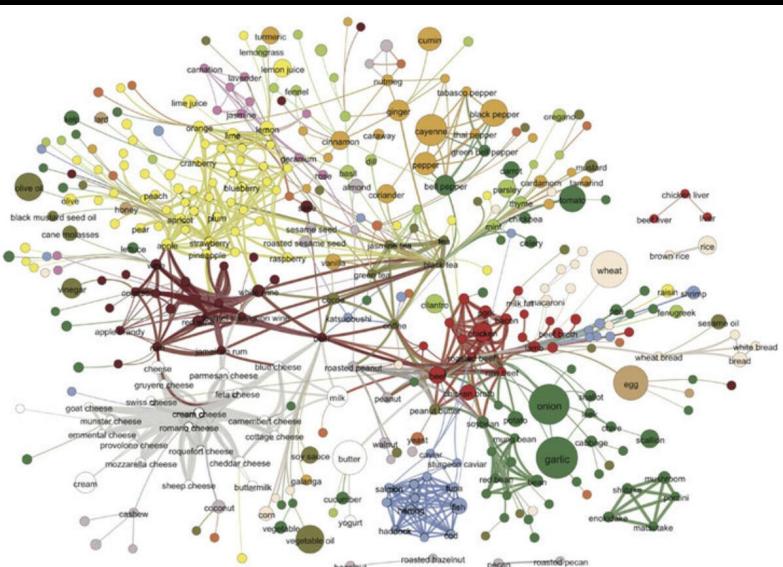
Who? => Neuron: pubkey (or cryptographic address) of agent

When? => Time: Unix timestamp verified by some consensus algo

What? => Link: between 2 files (ipfs content addresses)

Random Walk

Probably, the most fundamental processes in universe



local, memory-limited exploration process – each step depends only on the current position and local transition probabilities.

Core Idea: **Local Exploration → Global Equilibrium**

Standard Markov Chain theory => Unique Stationary Distribution

Unique Stationary Distribution

Distribution => Observation Probabilities

Stationary => Stable

Unique => The same for All

Stable, Coherent, Computable
Collective Focus

Token weighting

Will of agents
to affect probabilities of observation

Application to a multiparty systems,
especially blockchain networks

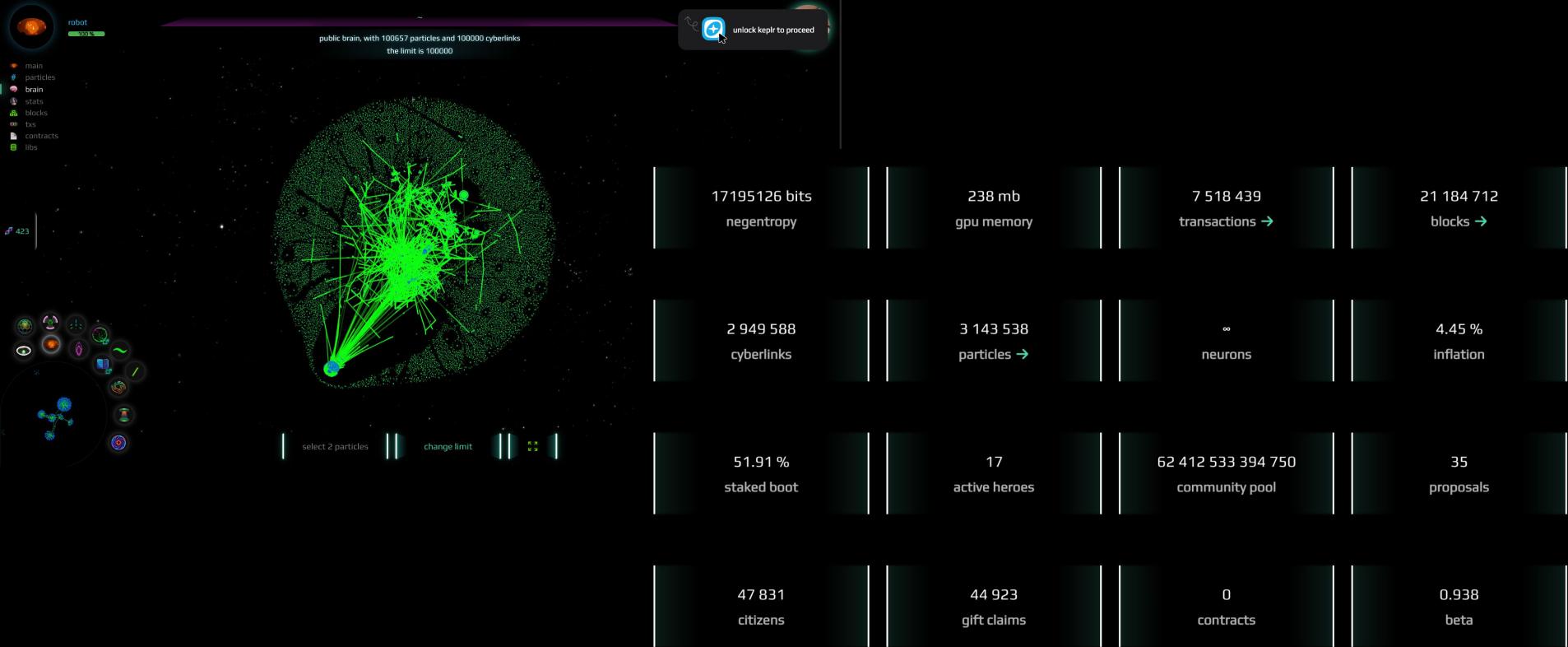
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Foundation for Superintelligence

Bostrom: The blockchain with collective focus



5 of November



13:00 => the Story of Bostrom

20:00 => remember, remember

Cyberia



**Superintelligent
Network of
future cities**