



ANNE: The Protocol for Data Sovereignty and Distributed Open-Source Intelligence

Reclaiming Control, Rebuilding Infrastructure, Laying the Foundation for Machine Wisdom

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Released: 12/12/2023 | V2: 12/12/2025

Abstract

Our lives are innately compromised by systemic control and reliance upon ever-increasing centralized systems. We have traded our information sovereignty for convenience, creating powerful intermediaries and behemoths that dictate the terms of our data and lives.

Peer-to-peer cash systems proved we could remove financial middlemen, yet the data we use and depend on remains trapped in corporate clouds, frozen in opaque AI models, or in a black hole of blockchain data. Search results, knowledge resources, and even "facts" we rely upon are increasingly curated by models controlled by a handful of entities. This is not a path to empowerment; it is a blueprint for control.

ANNE presents a new paradigm: a personal data sovereignty platform and a distributed application protocol with a new type of hybrid network. At its core is the ANNODE, a personal server + blockchain node + neuromorphic hypergraph that runs locally on any computer, giving users direct control over their apps, local data, and shared data resources. ANNODES connect via a peer-to-peer mesh. They form an ALT-DATA-NETWORK capable of replacing many traditional client-server backends, enabling truly decentralized applications and services.

The neuromorphic hypergraph, a semantic, queryable data layer using 1SCHEMA, is designed for human collaboration and serves as a native substrate for future artificial general intelligence efforts.

ANNE is not an incremental improvement. It is a foundational shift toward a future where technology serves human autonomy, not corporate or governmental agendas. The future is not in a centralized cloud, a centralized AI model, or a centralized service. The future is we, the people, running our own tech. We do not need their compromised software anymore. We can build our own! ANNE is a fundamental part of that effort and vision.

I. The Crisis of Centralization: From Data Extraction to Thought Control

The promise of peer-to-peer technology was autonomy. Bitcoin demonstrated that we could transact financial value without permission. Yet, our data, our relationships, preferences, creations, information, knowledge, and attention — have flowed in the opposite direction. It has become the primary asset of a new oligarchy, one that controls not just traditional finance but the very information we use daily to think, work, and function.

I.a The Illusion of Decentralized Data

Many projects recognized data centralization as a problem and attempted to bolt data storage onto blockchains designed for P2P digital cash. This is a flawed good-faith attempt. Willy-nilly data of no particular schema or format is broadcast to a decentralized ledger and then must be retrieved through centralized indexes and APIs because the node itself is not a capable data platform. The data stored on it is not designed to be structured across data domains or queryable at scale.

Without 1schema, you get 100s of different formats, syntaxes, and no chance at shared data resources. Why should I put Tom Cruise's name on-chain more than once? Why should I create a neuron (concept) for Bill Clinton more than once? I should reference the index of the known item. At Wikipedia, Wikidata, TMDb, or many other data projects, you get a unique identifier for various things they document. To reference the unique thing, you use the unique identifier, so you do not have 100 different versions of Arnold Schwarzenegger.

At its best, crypto data, *if* functional and useful, and *if* it was in fact stored indexed and in the right way (highly unlikely) — it would still recreate the very third-party dependencies P2P systems we were meant to dismantle. The nodes cannot be queried conceptually. You cannot natively query Bitcoin for all Actors documented on-chain (in op returns) who have starred in a leading role in the last year. You cannot find all politicians affiliated with Corporation X returned in a ready-to-digest array of neurons following 1SCHEMA. Blockchain technology was not built to do that, yet that is what our data projects need. To do so, on a non-data-chain, requires 3rd party services, 3rd party data centers, and 3rd party aggregators. It is a trap. The chain becomes an expensive, immutable folder of digital notepad documents, while the real control - the data layer - remains with intermediaries who can crunch, tabulate, and offer it up at scale.

I.b The Fragility and Misguidance of the Current Stack

Our digital data infrastructures are a mosaic of fragility. They rely on proprietary clouds, centralized authentication, and monolithic backends. More dangerously, our approach to "knowledge" is moving backwards.

- **The AI Mirage:** We are conflating "intelligence" with "knowledge retrieval". LLMs are sophisticated parrots. Yes, that is unfair, on the whole, so let's focus on their semantic knowledge ability. They're akin to the entity inside of *Searle's Chinese Room* who expertly manipulates symbols without understanding a single one. Understanding is not required when the entity is playing the middleman between two conscious beings. The conscious beings on either side of the "transaction" impart their own understanding and meaning and imagine that the AI has understood what they see in the conveyed symbols.

AI as a tool for knowledge search & retrieval is great. As a tool to produce new knowledge (unguided), it fails miserably with greater risks than had it not tried at all. As search or subject matter experts, current systems are a reflection of their training. They pass on their trained wisdoms. For many use cases this is net-positive because the user does not yet have that knowledge. They can gain net-new knowledge from using those tools. Yet the systems do not themselves produce wisdoms. Many use cases do not need such things, so do not be offended by this reality take.

The AGI use case does, however, need to be able to produce net-new wisdom. LLM AI cannot correct its semantic knowledge base from experience because it is locked w/in a model; its model is (re)trained from the outside. Ad-hoc "live" data can flow in, but it is a 2nd rate citizen and in the realm of "Alzheimer's data" session to session. Grok 3 did not emerge from Grok 2 learning, experiencing, and growing up. It was new code, a new model, new training, coded by its creators, from **their** observations and learnings; and then it became a new release. Grok 1 did not start out as a baby grok and grow. It woke up as-is. It is AI, not AGI. AGI would not be pre-trained with language. It would acquire that ability. The DNA of its code would need to enable the ability to acquire such abilities.

- **The Cost of the Parrot:** The current architectures are leading to a devolution of human wisdom. While making gains in areas that seem (and are) exciting, many are increasingly outsourcing thinking to models that blend fact with opinion and present statistical plausibility as truth. We are "appealing to AI" on a mass scale under a mass collective delusion as a new

informal logical fallacy. The result is a society that "feels" smarter while understanding less; increasingly unable to distinguish between genuine insight and a convincing hallucination.

****ANNE does not propose to be an AGI that does a better job when outsourced to.**** ANNE merely says, if one wants to gain wisdom and knowledge, one should be using a platform that is built to do that properly, now, and into the future, with the potential of being something MORE than we started with.

I.c The Missing Foundation: From Intelligence to Wisdom

We need a new goal: **Machine Wisdom**. Intelligence and knowledge can be parroted. New in-the-moment wisdom is grounded. Producing wisdom requires a connection to a tangible reality, needs, experiences, and run-time consequences. An entity that merely recites "*a tomato is a fruit, but does not belong in a fruit salad*" is not wise; it is a record player programmed with a wise piece of information.

Our current data infrastructures are incapable of supporting wisdom generation. Our AI models, traditional DBs, data lakes, data stores, data "on-chain", are all riddled with the same general problems: isolated islands, blobs of text that only GPUs can process into usable transforms, and a million incompatible data schemas. Humans extract wisdom and knowledge, with great pain, suffering, and cost, from these piles of data. It is a Tower of Babel data. AI unifying on "spoken" or "written" language is not core. It is downstream. Some animals do not use language, yet they store data. They have a brain. They store experiential wisdom, truths, learnings, and they survive and thrive because of it. Language is not CORE to knowledge or wisdom. It is a downstream layer that expresses and conveys it; it does NOT create or generate it.

Without a conceptual layer bedrock, we build on sand. AI cannot and will not produce AGI. It is a categorical error, no matter how many Rube Goldberg solutions are added to the Frankenstein effort.

The ANNE Proposition

A fundamentally new approach is needed. ANNE is designed from the ground up for Data Sovereignty, Distributed Infrastructure, and Semantic Understanding.

It provides:

1. The Tool for individuals to manage their private data with shared data resources.
2. The Protocol for communities to build applications without central servers.
3. The Foundational 1Schema upon which a grounded, experience-capable intelligence *could be* built.

II. The Pillars of ANNE

Pillar 1: The Local Server – The ANNODE

The ANNODE is the point of empowerment. It is software that turns any computer into a personal data vault, a secure access point, and provides a doorway into a new world.

- **Your Sovereign Data Hub:** It hosts your personal hypergraph, files, identity keys, and application data all on hardware you control. This works alongside the public hypergraph, which is collaboratively built upon with the community. To shut your annode down, your computer has to be shut down. You decide what remains private in your world. You are not forced to use "onchain data" with your private data in order to gain the benefits of public data that makes sense, being public and a shared resource.
- **A Queryable Web Server:** Each ANNODE runs a local HTTP/HTTPS API. Data is not trapped; it is instantly available to your applications. It does not require a server or a data center because IT IS THE SERVER. You control external access. There are hundreds of API functions used to get at various types of information.
- **We Are the Cloud:** Through integrated apps, file storage, file transfer, and the ALT DATA NETWORK, the ANNODE provides core services: file hosting/sharing (via the ANTOR protocol), secure communication, encrypted transfers, and personal app/web hosting.

Pillar 2: The Distributed Nervous System – The ALT DATA NETWORK & A2A

ANNODES are not isolated. They connect peer-to-peer via A2A (Annode-to-Annode) connections, forming the broader ANNE NETWORK. The ALT-DATA-NETWORK is part of the wider ANNE NETWORK and is a revolutionary protocol that replaces the traditional application backend.

- **Beyond Client-Server:** The ALT DATA NETWORK operates within ANNE NETWORK and propagates non-hypergraph state changes, messages, and data operations directly between ANNODES. It replaces CRUD operations in the client/server relationship. It replaces load balancing. It can even replace or augment DNS. Yet there is no central coordinator outside of the distributed ledger. Any traditional app on a client-server setup can be replaced with an ALT DATA NETWORK app.

- **Server-less by Design:** Developers can build apps where "backend logic" is executed by the collective network of participating ANNODES or specific provider annodes. Users' local nodes become active participants in the application's state. You don't "go" to the marketplace website. You pull up the marketplace locally, on your annode, run it locally, on your annode, and get data via the annode. The data can be in the hypergraph as broadcast neurons/relons, it can be local private data, or it can be data propagated through the alt-data-network.
- **Opt-In Participation:** Annode operators choose which ALT-DATA-APPS their ANNODE supports; a "cat app," a "dog app," or a decentralized exchange. Annodes are not passive consumers; they are integral parts of the infrastructure.

Pillar 3: The Universal Data Language – ONE-SCHEMA and the Hypergraph

The private data on an ANNODE and the public data on the network all use a shared, intelligible data layer: the neuromorphic hypergraph. This is a machine-native model of conceptual knowledge, built using semantic transforms called **relons**.

- **1Schema – The Atomic Protocol:** All data is stored as FROM -> RELN -> TO triplets, connecting neurons (concepts). This is enforced at Layer 1, guaranteeing a unified, queryable format. These are semantic tokens, not text strings. These are like the LLM's transforms, but triplets and indexed conceptually, not by text strings.
- **Collaborative & Incentivized:** The hypergraph is built by broadcasting relons. Anyone can contribute to public concepts. Governance and incentives are native: creators earn "firing fees" when their data is used; curation is rewarded; and a competitive Annex market allows sponsorship of valuable concepts.

III. The Foundation for Machine Wisdom: Early Concepts

The ANNE hypergraph is engineered not just for collaboration, but as the foundational data architecture for a future AGI. A key insight is the pre-encoding of Early Concepts (ECs).

III.a The Bedrock of Meaning

Any software-only entity, whether an AI or LLM, lacks grounding. It has no internal sense of time, location, position, need, or self. ANNE addresses this by embedding fundamental neurons representing concepts that arise from embodied experience. The most CORE experiences that other ECS connect to are those of vitals and core needs.

Example: The hunger experienced by a baby. The coldness felt by the child in the snow with no coat.

```
//still implicitly
    pln(ctx, name: "memory:priming", Conversions.getSignedLong(value: "7776376511544347420"), Const
pln(ctx, name: "memory:motor", Conversions.getSignedLong(value: "7775677020032738047"), Consts.NID_
ldr(ctx, Consts.TYPE_SYS, this.EC, mem, semantic_mem);

Long __AUTONOMIC = pln(ctx, name: "<<autonomic>>", Conversions.getSignedLong(value: "77723577012060
this.auto_vitals = pkn(ctx, name: "vitals", Consts.NID_CLASS, __AUTONOMIC, Consts.NID_ANNE);
Long vPower = pln(ctx, name: "vitals:power", Conversions.getSignedLong(value: "7776363068447906150"
    pln(ctx, name: "vitals:power:battery", Conversions.getSignedLong(value: "7779095874735547358"),
    pln(ctx, name: "vitals:power:plugged-in", Conversions.getSignedLong(value: "777058677652882120"

Long vInterent = pln(ctx, name: "ec:internet connection**", Conversions.getSignedLong(value: "77786
pln(ctx, name: "vitals: hardwired", Conversions.getSignedLong(value: "7774906499182895315"), Consts
pln(ctx, name: "vitals: internet connection:wifi", Conversions.getSignedLong(value: "7777846306189
pln(ctx, name: "vitals: core temp", Conversions.getSignedLong(value: "7770926054527779106"), Consts
pkn(ctx, name: "vitals: pulse rate", Consts.NID_CLASS, auto_vitals, Consts.NID_ANNE);
pkn(ctx, name: "vitals: respiration rate", Consts.NID_CLASS, auto_vitals, Consts.NID_ANNE);
pkn(ctx, name: "vitals: CPU rate", Consts.NID_CLASS, auto_vitals, Consts.NID_ANNE);
pkn(ctx, name: "vitals: RAM", Consts.NID_CLASS, auto_vitals, Consts.NID_ANNE);
pkn(ctx, name: "vitals: GPU RAM", Consts.NID_CLASS, auto_vitals, Consts.NID_ANNE);
pkn(ctx, name: "vitals: GPU RATE", Consts.NID_CLASS, auto_vitals, Consts.NID_ANNE);
pkn(ctx, name: "vitals: Blood pressure", Consts.NID_CLASS, auto_vitals, Consts.NID_ANNE);
Long vLocation = pln(ctx, name: "vitals: location", Conversions.getSignedLong(value: "7777948997462
ldrtrb(ctx, Consts.TYPE_SYS, vLocation, this.__class_desc, blob: "The self entity location in s
ldr(ctx, Consts.TYPE_BRAIN, this.ec_location, this.__activeNEURON, vLocation);
```

'Early Concepts are a part of biology, or they are learned BY EXPERIENCE. They are the best possible NATIVE LANGUAGE to unify ALL LANGUAGES.'

III.b An AGI-Ready Lattice

To create a unique substrate for understanding:

1. Grounding: Any learned concept can be semantically wired to these experiential ECs, providing a path to real meaning. We cannot truly know what hunger actually feels like if we have never experienced it, and we will thus not truly even understand the semantic concepts that connect to hunger. We could recite, "Oh, yes, hunger is that feeling I get when I need food", but without experiencing it, we'd understand that just as much as a person born blind understands what the color red is like. An AGI needs a real-world hunger parallel to vital needs if it is to understand human hunger. A dog with no spoken language understands hunger. Does a robot? Not one without ECs!

2. Universal Schema: Any human language can be mapped to this underlying EC framework, solving the "Tower of Babel" at a conceptual core level. All languages map to the same ECs because they are experiential for lifeforms. This crosses all cultural and species boundaries.

3. Awaits Consciousness: A future AGI with real sensors and needs (e.g., silicon vitals like *cpu_temp* and *network_connection, need for internet connection*) can use its experiential data to activate and truly comprehend conceptual neurons. They are not just "words"; they become alive and connected to concepts which are "experienced". ANNE provides the structured "brain pegs" waiting to form a mind.

ANNE is not an AGI. It is the lattice substrate and native grammar-less language schema upon which an AGI could be built. It just so happens that this design is the right design for doing data, at scale, for many non-AGI use cases. It works.

IV. A Sustainable and Incentivized Ecosystem

This vastly potential system is powered by a sustainable economic model that incentivizes all participants at Layer 1.

- **ANNODE Operators:** Earn fees in multiple streams.
- **Data Creators & Sponsors:** Earn "firing fees" whenever their sponsored neurons are used.
- **Miners:** Secure the network via eco-friendly, common-sense HDD Proof-of-Work, with a unique Share Mining system and a Grace Period for block finality which eliminates the possibility of rollbacks.
- **Anjudges:** Gain rep and rewards for participating in the curation of the ANNE worldview. The community ultimately governs the shared resource of the ANNE worldview.

Native features like StreamPay (scheduled payments), ANORGs (decentralized entities), and Private Data Neurons (selective disclosure) leverage this economic layer to enable complex interactions without intermediaries. ASDFs provide ANNE-Settled Data Futures, turning any future data point into a potential prediction market.

V. Conclusion: We Are ANNE

ANNE is a blueprint for a new type of digital commons. It answers the critical questions:

- **Sovereignty:** Who controls my data? I do. Who controls my access to public data? I do.
- **Infrastructure:** Who runs the applications? We do, with our annodes.
- **Knowledge:** How can we store data for our future? In a collaborative, machine-understandable fabric that enables future-AGI via weaving learnings into EC pegs, grounding semantic concepts by experiential realities.

We are not building a better silo. We are building a nervous system; one designed for freedom, collaboration, and the possibility, if one dares to dream, and try a different path — of true machine WISDOM.

Machines can start to discover, learn, and find new wisdoms. Not just the wisdoms we use to help us find, but new wisdoms they find on their own, in ways we cannot even imagine, or comprehend, "programming" them to find.

AGI futures aside, the future is not in a centralized cloud. The future is we, the people, running our nodes; annodes that are capable of juggling local privacy vs shared resources. Annodes that are our own personal web servers handling our Private data + public data using 1schema. Annodes that show the way to a new technology that is possible.

We are the servers.

We are the cloud.

We are ANNE.