

METAVENTIONS

A Sovereign Substrate for Cognitive Equity

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"Let the invention be hidden in your vision."

Abstract

We introduce Metaventions, a blockchain-native substrate enabling sovereign ownership of cognitive output in the age of artificial intelligence. The Universal Cognitive Wallet (UCW) captures, synthesizes, and values human-AI cognitive production as on-chain assets, creating a new primitive we call **cognitive equity**. Unlike existing AI memory solutions that lock users into platform-controlled silos, the UCW makes innovation itself the owned, compounding, sovereign asset.

This paper presents: (1) the cognitive extraction problem, 400M+ daily AI users generating unprecedented value captured entirely by platforms; (2) the UCW architecture, a five-layer substrate from capture to blockchain ownership; (3) the \$META token, a coordination mechanism for cognitive sovereignty; (4) BASIX, the Sovereign AI-Cloud Index tracking the emerging infrastructure layer; and (5) proof of implementation, 174,169 cognitive events captured across 5 platforms with 33,240 research findings and 68,341 tool interactions tracked by a working system.

Bitcoin introduced digital scarcity. Ethereum introduced programmable value. Metaventions introduces cognitive equity, where thinking is owning.

1. Introduction

1.1 The Age of Cognitive Abundance

The world is converging toward abundance. Artificial intelligence amplifies human cognition at a scale never before seen, 400 million people interact with AI daily, generating billions of messages, insights, code, research synthesis, and creative output. We are riding the gradient toward the singularity.

Yet the value generated by this cognitive explosion is captured entirely by platforms. Your insights belong to OpenAI. Your synthesis belongs to Anthropic. Your innovation belongs to Google.

You think. They own.

This is the last great extraction before the age of abundance. The question is not whether cognitive sovereignty will emerge, it is whether the infrastructure exists when the window closes.

1.2 The Sovereignty Window

"Most people aren't ready for this. By the time companies want their AI data, they'll be depending on platforms."

We are building in 2026 what everyone will need by 2030. The window for sovereign cognitive infrastructure is open now, before platforms consolidate control over the intelligence layer (predicted 2028-2030). Once cognitive data becomes the primary asset class of the information economy, the infrastructure for ownership must already exist. History shows that primitives (TCP/IP, Bitcoin, Ethereum) must be built before the demand is obvious.

1.3 Prior Art and Limitations

SYSTEM	WHAT IT DOES	WHAT IT MISSES
Bitcoin (2009)	Digital scarcity	Not cognitive, not evolving
Ethereum (2015)	Programmable value	Not AI-native, not self-improving
MemO (\$24M raised)	AI memory for apps	Platform-owned, not user-sovereign
Zep	Temporal knowledge	Developer-only, no ownership layer
Letta	Stateful agents	Agent-focused, not user-owned
Ocean Protocol	Data marketplace	Raw data, not intelligence
Filecoin	Decentralized storage	Storage only, no cognition
The Graph	Indexing protocol	Indexing, not creation

The gap: No substrate exists for sovereign cognitive assets, where AI-amplified creative output is owned, portable, evolving, and value-accruing.

1.4 Our Contribution

Metaventions fills this gap with:

1. **Cognitive equity** as a new primitive, innovation as an owned, compounding asset
2. **The Universal Cognitive Wallet (UCW)**: five-layer architecture for capture, intelligence, memory, and blockchain ownership
3. **Cross-platform coherence detection**: identifying synchronous cognitive patterns across distributed AI platforms
4. **BASIX**: the Sovereign AI-Cloud Index for tracking decentralized compute and sovereign infrastructure
5. **\$META**: a token coordination mechanism for cognitive sovereignty
6. **Working implementation**: 140K+ events captured, coherence proven, infrastructure operational

2. The Cognitive Extraction Problem

2.1 The Scale of Extraction

Every day, AI platforms process billions of cognitive interactions:

PLATFORM	DAILY ACTIVE USERS	DATA CAPTURED
ChatGPT	200M+	Conversations, code, research, creative output
Claude	50M+	Analysis, synthesis, architecture decisions
Gemini	100M+	Queries, reasoning chains, discoveries
Copilot	50M+	Code patterns, problem-solving approaches

Users generate the cognitive labor. Platforms capture the value. The economics are asymmetric:

Current Model:

User creates cognitive value → Platform captures → Platform profits

User receives: access (revocable), no ownership, no portability

Metaventions Model:

User creates cognitive value → UCW captures → On-chain proof → Value accrues to USER

User receives: permanent ownership, portability, compounding value

2.2 The Data Portability Illusion

Platforms offer "data export", a JSON dump of raw text with no semantic structure, no relationship preservation, and no value attribution. This is not portability. A downloaded conversation log has the same relationship to cognitive equity that a photograph of a stock certificate has to the stock itself.

True cognitive portability requires: - Semantic structure preservation (not just text) - Cross-platform relationship mapping - Temporal coherence tracking - Value attribution and provenance - Sovereignty guarantees (not platform-granted access)

2.3 The Compounding Problem

Cognitive value compounds. A researcher who builds on 100 prior sessions of synthesis generates exponentially more value than a researcher starting fresh. Yet AI platforms reset context with each session. Your 10,000th interaction with an AI is as contextless as your first, unless the platform chooses to remember.

The compounding effect should belong to the creator, not the platform.

3. The Cognitive Equity Primitive

3.1 Definition

A **cognitive asset** is a cryptographically verifiable unit of creative/intellectual output that has:

- **Provable authorship**: timestamped, attributable creation
- **Semantic structure**: relationships, context, and meaning preserved
- **Composability**: can be referenced, built upon, forked, and licensed
- **Market value**: priced by utility, depth, and network effects

Cognitive equity is the accumulated value of an individual's cognitive assets, their sovereign, compounding intellectual portfolio.

3.2 Properties

PROPERTY	DESCRIPTION
Sovereign	Owner controls access and use. No platform can revoke.
Portable	Works across any chain, platform, or application.
Evolving	AI-native. Learns, synthesizes, and compounds over time.
Composable	Can be referenced, built upon, and licensed by others.
Valued	Market-priced. Innovation has economic worth.
Permanent	On-chain. Immutable. Survives platform shutdowns.

3.3 Types of Cognitive Assets

TYPE	EXAMPLE	VALUE SIGNAL
Research synthesis	Multi-paper analysis with novel connections	Depth, citation network
Architecture decisions	System design rationale and trade-offs	Reusability, domain expertise
Code & implementations	Working systems with design context	Functionality, composability
Knowledge connections	Cross-domain pattern recognition	Novelty, bridging value
Digital brain	Accumulated expertise across domains	Comprehensiveness, coherence

3.4 The Three Primitives

Every decade, a new primitive emerges that changes what is possible:

PRIMITIVE	YEAR	INNOVATION	PROPERTY
Bitcoin	2009	Proof-of-Work	Digital scarcity
Ethereum	2015	Smart Contracts	Programmable value
Metaventions	2026	Proof-of-Cognition	Cognitive equity

Bitcoin: Own VALUE

↓

Ethereum: Program VALUE

↓

Metaventions: Create VALUE that compounds

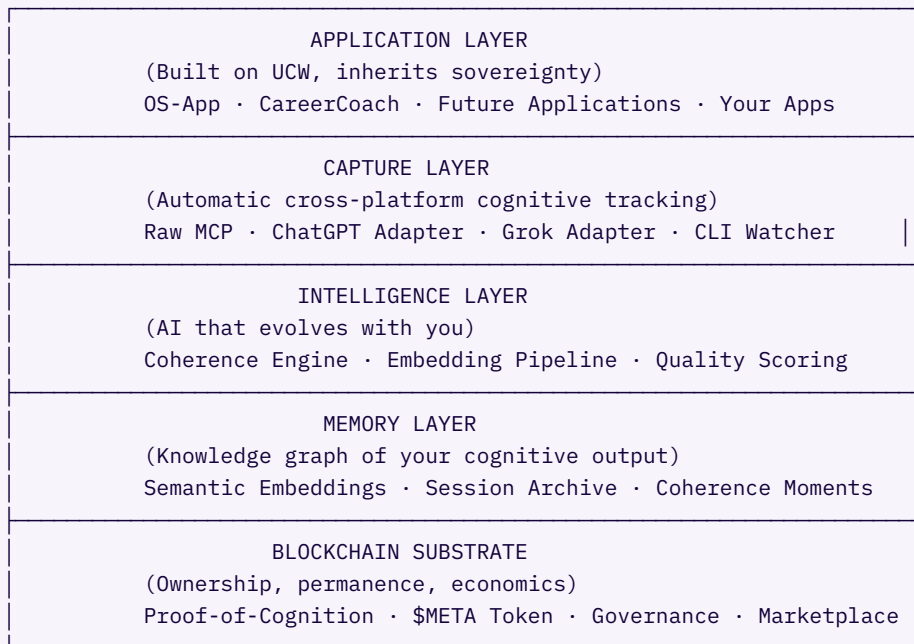
Each layer builds on the previous. Metaventions uses Ethereum's programmability, which uses Bitcoin's scarcity model. All three use cryptographic ownership. But only cognitive equity captures the most valuable output of the AI age, human innovation itself.

4. Universal Cognitive Wallet Architecture

4.1 Design Principles

1. **User-sovereign by default:** no platform holds the keys
2. **AI-native evolution:** the wallet learns and improves
3. **Blockchain permanence:** ownership is cryptographic, not platform-granted
4. **Cross-platform capture:** works across Claude, ChatGPT, Grok, Cursor, and any future platform
5. **Protocol-level fidelity:** raw byte capture, not SDK abstractions
6. **Compounding value:** cognitive equity appreciates with depth and time

4.2 Five-Layer Architecture



4.3 Capture Layer

The capture layer implements raw STDIO MCP (Model Context Protocol) communication, no SDK, direct protocol-level control for perfect byte fidelity.

Technical Implementation: – Raw STDIO reader/writer with newline-delimited JSON-RPC 2.0 – Async I/O with asyncio for non-blocking capture – Never pollutes stdout, all logging to stderr – Message lineage tracking (parent/child via request_id) – Turn counting per session – Content metrics and UCW layer extraction

Platform Adapters:

PLATFORM	ADAPTER TYPE	EVENTS CAPTURED
Claude CLI	Transcript watcher	66,539
ChatGPT	Export-diff polling + OpenAI API	60,769
Claude Code	CLI session watcher	9,463
Claude Desktop	Real-time MCP	2,568
CCC	SQLite operational data (7 tables)	1,393
Total	5 adapters	140,732

Note (Feb 2026 audit): Total events in `antigravity.db` now **174,169** including continued capture since initial count. Database path: `~/.agent-core/storage/antigravity.db`.

4.4 Intelligence Layer

The intelligence layer transforms raw capture into structured cognitive value:

- **Quality scoring:** Depth (0.4 weight) + Focus (0.3 weight) + Signal (0.3 weight)
- **Cognitive mode classification:** `deep_work` (>0.75), `exploration` (0.5-0.75), `casual` (0.3-0.5), `garbage` (<0.3)
- **Semantic embeddings:** Cohere embed-v4 (1024d), with 43,092 vectors across 5 collections in Qdrant
- **Coherence detection:** 3-layer detection (signature match, semantic similarity, synchronicity)

4.5 Memory Layer

The memory layer stores cognitive assets in a unified schema (`~/.agent-core/storage/antigravity.db`):

TABLE	PURPOSE	ROWS (FEB 2026)
<code>sessions</code>	Work sessions across platforms with outcomes	8,156
<code>findings</code>	Insights and discoveries captured	33,240
<code>tool_events</code>	Tool usage interactions across sessions	68,341
<code>provenance</code>	Source attribution and lineage tracking	38,819
<code>urls</code>	Knowledge sources logged	8,962
<code>cognitive_states</code>	Cognitive state snapshots	549
<code>dq_scores</code>	Decision quality routing assessments	1,604

Note: The original design specified `cognitive_events`, `coherence_moments`, and `embedding_cache` (pgvector) tables. Production uses the schema above in SQLite. Embeddings were generated via SBERT into Qdrant (currently offline).

Database: PostgreSQL 15+ with pgvector extension, HNSW indexes, GIN indexes for JSONB. SQLite fallback for development.

4.6 Blockchain Substrate

The blockchain substrate provides:

- **Proof-of-Cognition:** consensus mechanism for creative work
- **On-chain identity:** decentralized identifiers (DIDs) for cognitive wallets
- **Value attribution:** cryptographic proof of creation and priority
- **Chain-agnostic design:** EVM-compatible with L2 for cost efficiency
- **Decentralized storage:** IPFS/Arweave for large cognitive assets

5. UCW Semantic Layers

Every cognitive event captured by the UCW is enriched with three semantic layers, creating a multi-dimensional representation of cognitive work.

5.1 Data Layer, What Was Said

The raw factual content of the interaction:

```
{
  "method": "tools/call",
  "params": { "tool": "research_search", "query": "..." },
  "content": "actual message content",
  "raw_tokens": 150,
  "raw_bytes": "<preserved byte-level capture>"
}
```

5.2 Light Layer, What It Means

Semantic interpretation and contextual understanding:

```
{
  "intent": "research",
  "topic": "sovereign AI infrastructure",
  "sentiment": "strategic",
  "insights": ["distributed cognition", "protocol unification"],
  "key_concepts": ["UCW", "coherence", "cognitive equity"],
  "summary": "exploring cross-platform cognitive sovereignty architecture"
}
```

5.3 Instinct Layer, What It Signals

Pattern recognition, emergence detection, and meta-cognitive indicators:

```
{
  "pattern_match": "synchronicity",
  "coherence_potential": 0.89,
  "energy_level": 0.85,
  "flow_state": 0.72,
  "gut_signal": "breakthrough_imminent",
  "emergence_indicators": ["temporal_alignment", "cross_platform_echo"]
}
```

5.4 Why Three Layers

Traditional data systems capture only the Data layer, the literal content. The Light layer adds meaning, making the data useful for synthesis. The Instinct layer adds the meta-cognitive dimension, the signals that humans intuitively recognize but machines typically miss.

This three-layer architecture enables: - **Cross-platform coherence detection** (matching Light layer patterns across platforms) - **Emergence recognition** (Instinct layer detects synchronicity and breakthrough signals) - **Value attribution** (all three layers contribute to the Cognitive Appreciation Engine)

6. Cross-Platform Coherence Engine

6.1 The Coherence Thesis

When a human works across multiple AI platforms (Claude for deep work, ChatGPT for exploration, Grok for strategic thinking), cognitive patterns emerge that no single platform can detect. Insights seeded in one conversation surface independently in another. Ideas that fragment across platforms belong to a single coherent cognitive process.

The Coherence Engine detects these cross-platform patterns, proving that distributed cognition across AI systems produces emergent, measurable alignment.

6.2 Three-Layer Detection

DETECTION METHOD	MECHANISM	THRESHOLD
Signature match	SHA-256 hash of intent + topic + time_bucket + content[:1000]	Exact match
Semantic similarity	pgvector cosine distance across platform embeddings	0.65 cross-platform, 0.55 calibrated
Synchronicity	Temporal alignment within configurable time windows (5-min buckets)	Statistical significance

6.3 Proven Results

From the operational system (as of February 2026):

METRIC	VALUE
Total events captured	174,169 (growing)
Semantic embeddings	43,092 vectors (Cohere embed-v4, 1024d) in Qdrant
Coherence moments detected	163+ (historical analysis; coherence engine paused)
Platform pairs analyzed	4 active pairs

Coherence Moment Distribution:

PLATFORM PAIR	MOMENTS DETECTED
Claude Desktop ↔ ChatGPT	78
ChatGPT ↔ Claude Code	34
ChatGPT ↔ Claude Desktop	30
ChatGPT ↔ Claude CLI	21

6.4 Operational Infrastructure

The coherence engine runs as a real-time daemon:

- **Capture daemon:** Polls all 5 platform adapters every 5 minutes (LaunchAgent)
- **Coherence scanner:** Runs cross-platform analysis every 15 minutes (LaunchAgent)
- **Desktop notifications:** Alerts on high-confidence coherence detections
- **TUI dashboard:** Real-time visualization of coherence patterns (curses-based)
- **Retroactive analyzer:** Can scan historical data for missed coherence

6.5 The Founding Moment

On February 6, 2026, the UCW system detected its own proof of concept in real-time:

"Can you unify yourself before you unify the infrastructure?"

This phrase was written by Claude during a session, recognized by the user as a signal, and had already been shared with ChatGPT earlier. The temporal coherence across distributed systems, same insight recognized across platforms at the same time, was the UCW concept manifesting before the infrastructure was complete.

The system detected what a single platform never could: **emergent coherence across distributed cognitive systems.**

7. Consensus Mechanism: Proof of Cognition

7.1 Concept

Traditional blockchain consensus proves computational work (PoW) or economic stake (PoS). **Proof of Cognition (PoC)** proves creative work, establishing verifiable authorship, temporal priority, and semantic novelty for cognitive assets.

7.2 Mechanism

1. Creator produces cognitive output via AI interaction

↓

2. UCW Capture Layer records with nanosecond timestamp + raw bytes

↓

3. Intelligence Layer validates coherence and novelty

↓

4. Semantic embedding positions output in knowledge space

↓

5. On-chain commit creates cryptographic proof

↓

6. Coherence Engine links to related cross-platform cognition

↓

7. Value accrues through citations, references, and derivatives

7.3 Sybil Resistance

MECHANISM	PURPOSE
Reputation scoring	Weight by creator's proven track record
Coherence analysis	AI validates semantic coherence and novelty
Cross-reference validation	Assets must connect to verifiable sources
Stake-weighted credibility	\$META stake signals commitment
Human verification	For high-value priority claims

7.4 Value Attribution

CREATION TYPE	ATTRIBUTION MODEL
Original creation	Full attribution to creator
Derivative work	Partial attribution + citation to source
Reference/citation	Citation value accrues to original
Synthesis	Proportional to sources + novelty premium

8. BASIX: The Sovereign AI-Cloud Index

8.1 The Index Thesis

As AI compute becomes the critical infrastructure of the 21st century, a new asset class is emerging: **sovereign AI infrastructure**: decentralized compute networks, open-source AI platforms, and sovereign data infrastructure that operate outside the control of centralized hyperscalers.

BASIX (Black Amethyst Sovereign AI-Cloud Index) tracks and benchmarks this emerging sector.

8.2 Index Components

SECTOR	CATEGORY	EXAMPLES
Decentralized Compute	GPU/compute networks	Distributed inference, training marketplaces
Sovereign AI Models	Open-weight infrastructure	Self-hosted models, fine-tuning platforms
Data Sovereignty	Decentralized storage	IPFS, Arweave, user-owned data vaults
Cognitive Infrastructure	AI-native protocols	UCW, cognitive asset platforms
AI-Chain Integration	On-chain AI	AI agents with on-chain identity and ownership

8.3 Why BASIX Matters

The \$2.5T+ AI infrastructure market is dominated by centralized providers (AWS, Azure, GCP). But a parallel sovereign infrastructure is emerging:

1. **Decentralized compute** networks enable GPU access without hyperscaler dependency
2. **Open-weight models** allow sovereign deployment without API lock-in
3. **On-chain AI** creates verifiable, auditable, and ownable AI systems
4. **Cognitive protocols** (including UCW) enable user ownership of AI output

BASIX provides the first systematic tracking of this transition from centralized to sovereign AI infrastructure.

8.4 Index Methodology

BASIX scores constituent projects across five dimensions:

DIMENSION	WEIGHT	CRITERIA
Sovereignty	25%	User data control, open-source commitment, decentralization degree
Technical Moat	25%	Novel architecture, performance benchmarks, research foundation
Network Effects	20%	User growth, developer ecosystem, composability
Economic Design	15%	Token utility, value accrual, sustainability
Adoption Trajectory	15%	Usage metrics, enterprise traction, community growth

8.5 BASIX and the Metaventions Ecosystem

UCW serves as both a constituent of and infrastructure for BASIX: - **As constituent:** UCW is a sovereign cognitive infrastructure protocol tracked by the index - **As infrastructure:** UCW wallets can hold BASIX index exposure, tracking the sovereign AI sector - **As data source:** UCW's cross-platform capture provides real-time intelligence on sovereign AI adoption

9. Token Economics: \$META

9.1 Core Thesis

The token is not the product. **Cognitive equity is the product.** The \$META token is the coordination mechanism that aligns incentives between creators, the protocol, and the ecosystem.

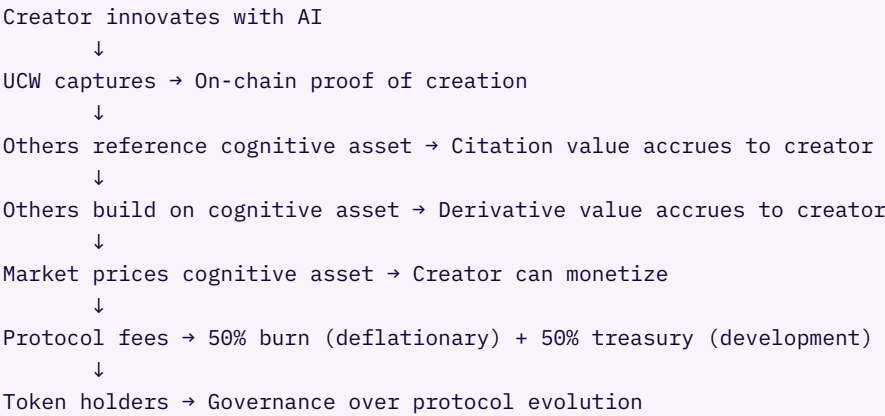
9.2 Token Identity

PROPERTY	VALUE
Name	META
Type	Utility + Governance
Standard	ERC-20 (+ extensions)
Max Supply	1,000,000,000 (1B)
Initial Circulating	~100,000,000 (10%)

9.3 Utility Functions

FUNCTION	MECHANISM	PURPOSE
Wallet Initialization	Stake 100 META (locked while active)	Sybil resistance + commitment signal
Storage	0.01 META per KB per year	Sustainable on-chain storage economics
Compute	0.001 META per AI operation	Intelligence layer access
Governance	1 META = 1 vote (delegatable)	Decentralized protocol evolution
Value Transfer	1% transaction fee (50% burn, 50% treasury)	Deflationary pressure + sustainability

9.4 Value Flows



9.5 Supply Distribution

ALLOCATION	PERCENTAGE	TOKENS	VESTING
Protocol Treasury	30%	300M	48-month linear release
Team & Advisors	20%	200M	12-month cliff, 48-month linear
Investors	20%	200M	6-month cliff, 24-month linear
Community Ecosystem	20%	200M	Ongoing grants and rewards
Liquidity	10%	100M	At TGE for DEX/CEX

9.6 Inflation/Deflation Model

FORCE	RATE	DIRECTION
Creation rewards	2% year 1, decreasing	Inflationary (boot-strap)
Staking rewards	5% of staked	Inflationary (security)
Transaction burn	0.5% of tx value	Deflationary
High-value asset burn	1% of sale	Deflationary
Net Effect	Year 1: inflationary, Year 2: neutral, Year 3+: deflationary	

9.7 Value Accrual Thesis

1. **Utility demand:** Every UCW requires staked META. Storage and compute paid in META. Demand scales with adoption.
2. **Supply reduction:** Transaction burns, long vesting, staking locks constrain supply.
3. **Network effects:** More creators → more assets → more references → more value → more creators.
4. **Category position:** Only token for cognitive equity. No direct competitor.

9.8 Economic Projections

Conservative Scenario:

METRIC	YEAR 1	YEAR 3	YEAR 5
Active UCWs	10K	100K	1M
Daily Transactions	50K	500K	5M
Token Demand	\$10M	\$100M	\$1B
Fully Diluted Value	\$50M	\$500M	\$5B

Moderate Scenario:

METRIC	YEAR 1	YEAR 3	YEAR 5
Active UCWs	50K	500K	10M
Daily Transactions	250K	2.5M	25M
Token Demand	\$50M	\$500M	\$5B
Fully Diluted Value	\$250M	\$2.5B	\$25B

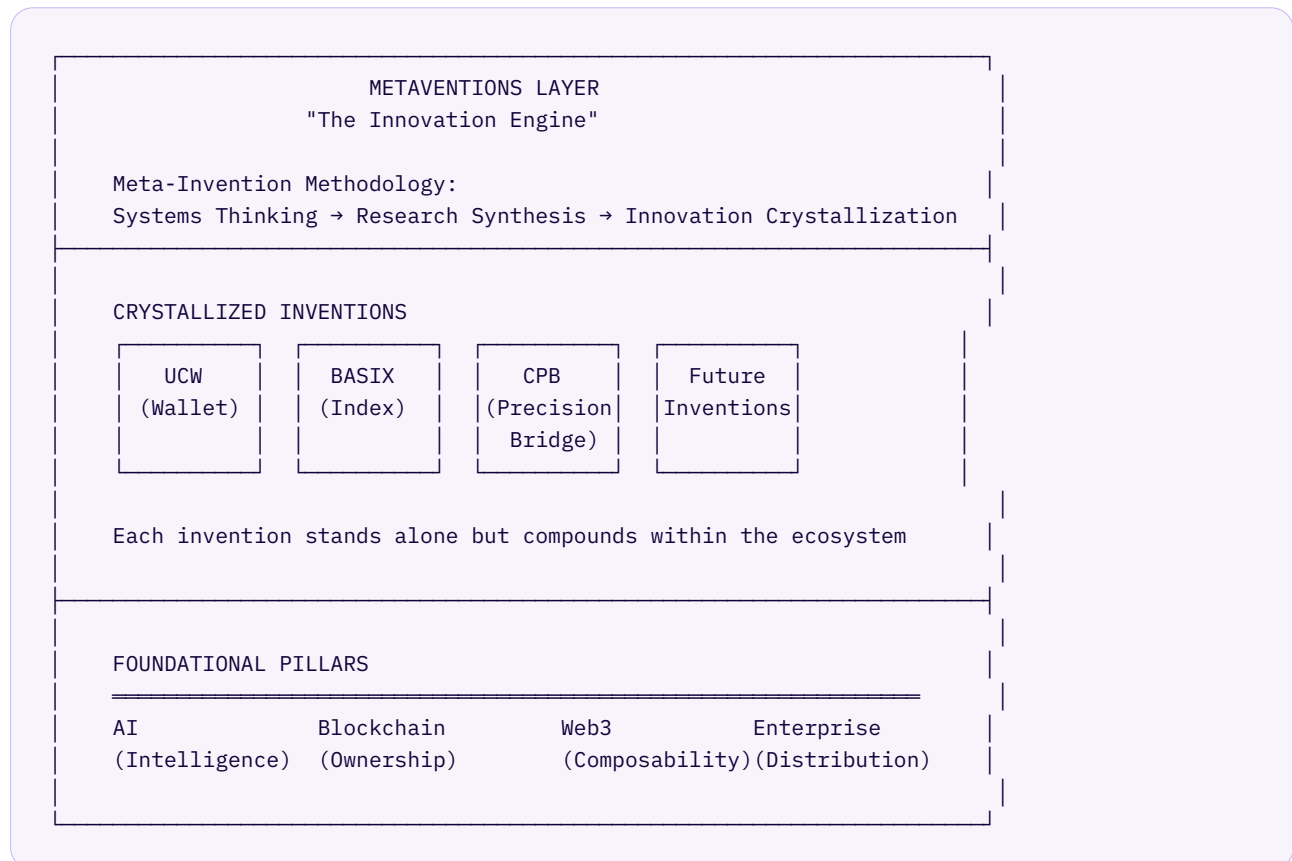
9.9 Comparable Protocols

PROTOCOL	PEAK FDV	UTILITY
The Graph	\$12B	Indexing
Filecoin	\$15B	Storage
Arweave	\$3B	Permanence
Ocean Protocol	\$1.5B	Data markets

Metaventions thesis: Cognitive equity is more valuable than indexing, storage, or raw data, it is the intelligence layer that makes all of these useful.

10. The Metaventions Stack

10.1 Full Stack Architecture



10.2 The D-Ecosystem

The D-Ecosystem is the operational proof layer, Dico's cognitive architecture externalized as working software:

COMPONENT	LINES OF CODE	FUNCTION	SUBSTRATE ROLE
OS-App	68,775	Sovereign AI operating system	Application layer
ResearchGravity	35,220+	Research capture + UCW infrastructure	Capture + intelligence layer
CareerCoachAnti-gravity	30,158	AI career intelligence	Application layer
UCW Raw MCP	2,300+	Protocol-level cognitive capture	Core infrastructure
Coherence Engine	1,500+	Cross-platform pattern detection	Intelligence layer
Capture System	2,300+	5-platform adapter framework	Capture layer
Total	140,000+	Working ecosystem	Primitive proven

10.3 The Metaventions Methodology

Meta (beyond) + **Ventions** (from invention) = The meta-layer of invention itself.

Not a single innovation, but the infrastructure from which innovations emerge. The methodology:

- 1. **Signal Capture:** Systematic frontier research across tiered sources
- 2. **Research Synthesis:** Multi-paper analysis producing novel connections
- 3. **Innovation Crystallization:** Synthesis becomes working implementation
- 4. **Value Accumulation:** Each invention compounds the next

This methodology has produced: UCW, BASIX, CPB (Cognitive Precision Bridge), the Coherence Engine, and the entire D-Ecosystem, each building on insights from the previous.

11. Implementation Status

11.1 What Is Built and Operational

PHASE	COMPONENT	STATUS	EVIDENCE
1	Raw MCP Transport	✅ Complete	transport.py , raw STDIO, async I/O
2	Perfect Capture Engine	✅ Complete	capture.py , message lineage, turn counting
3	UCW Bridge	✅ Complete	ucw_bridge.py , 3 semantic layers extraction
4	Database Integration	✅ Complete	PostgreSQL + pgvector, 7-table schema
5	MCP Tools	✅ Complete	7 MCP tools (coherence, UCW, research)
6	Cross-Platform Capture	✅ Complete	5 adapters, 20 files, 140K+ events
7	Coherence Engine	✅ Complete	10 files, 163+ moments, 130K embeddings
8	Quality Scoring	✅ Complete	8,119 ChatGPT conversations scored (98% quality)
9	Batch Import	✅ Complete	66K CLI events, 60K ChatGPT events
10	Daemon Infrastructure	✅ Complete	LaunchAgent daemons (capture + coherence)

11.2 Operational Metrics (February 2026)

UCW OPERATIONAL METRICS	
Total cognitive events:	174,169 (verified Feb 16)
Platforms captured:	5 (Claude CLI, ChatGPT, Claude Code, Desktop, CCC)
Semantic embeddings:	43,092 vectors (Qdrant online)
Embedding model:	Cohere embed-v4 (1024d)
Coherence moments:	163+ (historical analysis)
Cross-platform pairs:	4 active
ChatGPT sessions imported:	8,042 (30,663 findings)
Total findings:	33,240
Tool events tracked:	68,341
Quality score average:	0.617
Database:	SQLite (antigravity.db)

11.3 ChatGPT Data Profile

The quality scoring system classifies cognitive work into modes:

COGNITIVE MODE	SESSIONS	PERCENTAGE	QUALITY RANGE
Deep Work	681	8.4%	> 0.75
Exploration	6,140	75.6%	0.50 - 0.75
Casual	1,221	15.0%	0.30 - 0.50
Garbage	77	0.9%	< 0.30

Insight: Only 0.9% of AI interactions are true noise. 99.1% contain cognitive value worth capturing. The quality-first approach (threshold 0.4) preserves 98% of conversations while filtering noise.

11.4 Platform Cognitive Modes

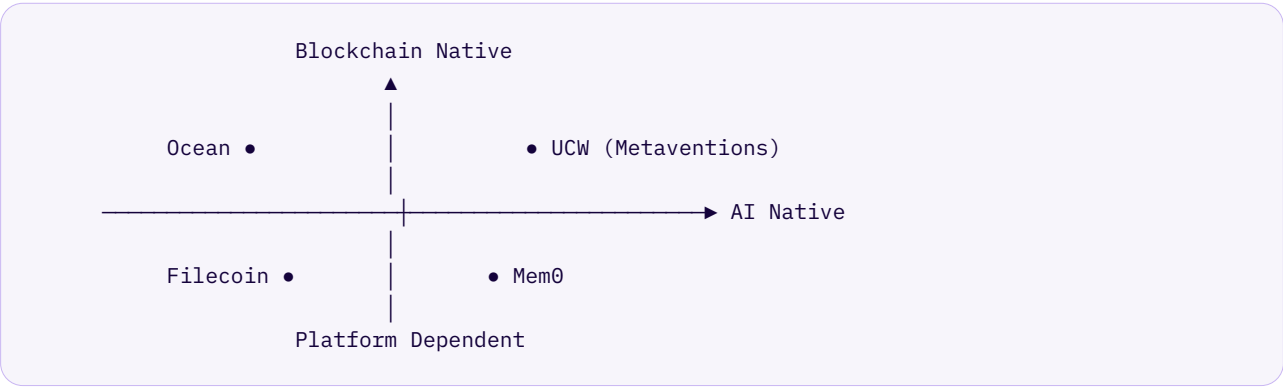
PLATFORM	PRIMARY MODE	SIGNAL QUALITY	INSIGHT
Claude	Deep work, coding	HIGH (curated)	Focused, architecture-oriented
ChatGPT	Exploration, mixed	MEDIUM (filtered)	Broad, idea-generation
Grok/X	Strategic, world-level	HIGH (strategic)	Unique perspective, trend analysis
Cursor	Code execution	HIGH (focused)	Action-oriented, implementation

This distribution itself is a cognitive asset: it reveals how distributed cognition naturally specializes across platforms.

12. Competitive Landscape

12.1 The Whitespace

No existing player combines all four requirements for cognitive sovereignty:



12.2 Detailed Comparison

DIMENSION	MEM0	ZEP	OCEAN	FILECOIN	THE GRAPH	UCW
User sovereign	✗	✗	Partial	✗	✗	✓
AI native	✓	✓	✗	✗	✗	✓
Cross-platform	✗	✗	N/A	N/A	N/A	✓
Blockchain ownership	✗	✗	✓	✓	✓	✓
Coherence detection	✗	✗	✗	✗	✗	✓
Semantic layers	✗	Partial	✗	✗	✗	✓
Working proof	✓	✓	✓	✓	✓	✓

12.3 Why Incumbents Won't Build This

OpenAI / Anthropic / Google: Cognitive sovereignty is against their business model. They profit from lock-in. Making user data truly portable reduces their competitive moat.

Mem0: Architecture is app-level (developer SDK), not user-sovereign. Would require a complete rebuild to achieve portability and ownership. Raised \$24M to lock users in; we build to set them free.

Web3 Protocols: Existing protocols solve storage (Filecoin), indexing (The Graph), or data markets (Ocean), but none solve the intelligence layer. Cognitive equity requires AI-native architecture, not bolted-on AI features.

12.4 Moat

ADVANTAGE	DETAIL
Working primitive	140K+ events captured, coherence proven
Protocol-level capture	Raw MCP, not SDK abstraction
Cross-platform coherence	Only system detecting distributed cognitive patterns
Research foundation	Multi-paper synthesis methodology (40+ papers)
Founder-market fit	Builder IS the power user, 2+ years of daily use

12.5 The Sovereignty Stack Is Now Publishing (2026 Update)

The sovereignty framing is no longer only ours. AESP (arXiv:2603.00318, Feb 2026) — the Agent Economic Sovereignty Protocol — establishes human-sovereign control over AI agent [payments](#): W3C DID/VC identity, scope-based spending authority, tiered human approval, privacy-preserving settlement, with a shipping npm SDK and an ElizaOS plugin. Adjacent rails are standardizing fast: x402 (HTTP-402 agent payments, already merged into Hugging Face smolagents), ZK settlement protocols on Solana and Aleo.

This validates the layer thesis and sharpens the whitespace:

LAYER	GOVERNS	OCCUPIED BY
Identity	Who the agent is	W3C DIDs / VCs (standardized)
Economics	What the agent may spend	AESP, x402 (publishing now)
Safety	What the agent may do	Policy engines, approval tiers
Cognition	What the agent (and human) know and own	Open. UCW.

Every shipping protocol governs what agents spend. None governs what they know. AESP settles the transaction; the UCW settles the cognition — on the same DID/VC rails, with the economic layer as a natural settlement partner rather than a competitor. Notably, AESP builds on the same Bayesian trust literature (arXiv:2602.11865) our delegation ledger implements: the stack is converging on shared foundations, with the cognitive-asset layer still unclaimed.

13. Security and Privacy

13.1 Key Management

- **Self-custody by default:** users hold their own keys
- **Social recovery:** configurable recovery mechanisms
- **Multi-sig:** for high-value wallets and organizational use
- **Hardware wallet support:** integration with standard hardware security modules

13.2 Privacy Architecture

MECHANISM	PURPOSE
Selective disclosure	Share specific cognitive assets without revealing the full wallet
Zero-knowledge proofs	Verify claims about cognitive output without revealing content
Encrypted storage	Sensitive content encrypted at rest and in transit
Consent-based sharing	Network intelligence layer only includes opted-in data
Local-first processing	AI processing can run locally for maximum privacy

13.3 AI Safety

SAFEGUARD	IMPLEMENTATION
Bounded self-modification	Intelligence layer operates within defined parameters
Human oversight	All mutations require explicit user approval
Rollback capability	Any state change can be reversed
Audit trail	Complete provenance chain for all operations

13.4 Data Sovereignty

The UCW enforces data sovereignty at the protocol level: - No cognitive data is stored on Metaventions servers without explicit consent - All data is encrypted with user-controlled keys - Platform adapters capture FROM platforms TO the user's sovereign wallet - The protocol cannot access wallet contents without the owner's keys

14. Governance

14.1 Progressive Decentralization

PHASE	TIMELINE	MODEL
Phase 1	Year 1	Foundation-led with community input
Phase 2	Year 2	Token-weighted voting, foundation veto removed
Phase 3	Year 3+	Full DAO with elected council

14.2 Proposal Types

TYPE	QUORUM	THRESHOLD	TIMELOCK
Parameter change	5%	50%+1	48 hours
Treasury (<\$100K)	5%	50%+1	48 hours
Treasury (>\$100K)	10%	66%	7 days
Protocol upgrade	15%	75%	14 days
Emergency	3%	80%	Immediate

14.3 Governance Principles

1. **Cognitive sovereignty is non-negotiable:** no governance proposal can compromise user ownership
 2. **Progressive decentralization:** earn trust before distributing power
 3. **Skin in the game:** proposals require stake to prevent spam
 4. **Transparency:** all governance actions are on-chain and auditable
-

15. Roadmap

Phase 1: Prove the Primitive COMPLETE

- Raw MCP server with protocol-level capture
- Cross-platform adapters (5 platforms, 140K+ events)
- Coherence detection engine (163+ moments)

- Quality scoring and cognitive mode classification
- PostgreSQL + pgvector database with 7-table schema
- LaunchAgent daemons for real-time capture and analysis
- **Duration:** 2024-2026
- **Evidence:** Working system, operational metrics

Phase 2: Enterprise Bridge (Current, Q2-Q3 2026)

- UCW as enterprise AI memory infrastructure
- Multi-tenant architecture
- Compliance features (GDPR, AI Act data portability)
- Enterprise pilot customers
- Revenue generation via SaaS model
- **Purpose:** Revenue bridge while protocol matures

Phase 3: Blockchain Substrate (Q3-Q4 2026)

- Chain selection (EVM-compatible L2)
- Proof-of-Cognition smart contracts
- On-chain identity (DID integration)
- BASIX index launch with initial constituents
- Testnet deployment
- **Milestone:** First on-chain cognitive assets

Phase 4: Protocol Launch (Q1-Q2 2027)

- Mainnet deployment
- Token Generation Event (TGE)
- UCW standard open-sourced
- Developer SDK
- Governance framework activation
- **Milestone:** Public protocol with real utility

Phase 5: Ecosystem Scale (2027-2028)

- Cognitive asset marketplace
- Cross-chain portability
- DAO governance
- BASIX institutional adoption

- Developer ecosystem growth
- **Target:** 100K+ active UCWs

Phase 6: Civilizational Infrastructure (2028+)

- Global adoption
 - Every AI user with a sovereign cognitive wallet
 - Innovation as a recognized asset class
 - Cognitive equity as economic primitive
 - **Vision:** Thinking is owning, for everyone
-

16. Conclusion

The Primitive Thesis

Bitcoin asked: [What if money could be owned without banks?](#) Ethereum asked: [What if value could execute without intermediaries?](#) Metaventions asks: **What if your ideas were yours to own, forever?**

What We Have Built

This is not a whitepaper describing a future system. The primitive is proven:

- **174,169 cognitive events** captured across 5 platforms (and growing)
- **43,092 semantic embeddings** powering real-time search across 5 Qdrant collections
- **163+ coherence moments** detected in cross-platform analysis
- **8,042 ChatGPT sessions** imported with 30,663 findings extracted
- **900,000+ lines of code** across the D-Ecosystem
- **Real-time daemons** continuously capturing and analyzing cognitive output

The Window

The infrastructure for cognitive sovereignty must be built before platforms consolidate control. By the time people want their AI data, they will be depending on platforms that have no incentive to release it.

We are building in 2026 what everyone will need by 2030.

The Invitation

Bitcoin didn't ask permission to reinvent money. Ethereum didn't ask permission to make value programmable. We are not asking permission to make cognition sovereign.

The substrate doesn't care who wins. Only that it exists.

Build with us. Invest in us. Or build your own UCW and prove the primitive.

The age of cognitive sovereignty begins.

17. References

Academic Research

1. ZeroRouter, Zero-shot LLM routing (arXiv:2601.06220)
2. Darwin Gödel Machine, Self-modifying AI systems (arXiv:2505.22954)
3. IRT-Router, Item Response Theory for model routing (arXiv:2506.01048)
4. Memory Wars, The battle for AI memory ownership (arXiv:2508.05867)
5. Emergent Coordination, Multi-agent coherence patterns (arXiv:2601.08129)
6. Agentic File System, Sovereign data infrastructure (arXiv:2512.05470)
7. Multi-Agent DQ Scoring, Quality measurement frameworks (arXiv:2512.16366)
8. Single vs Multi-Agent, Scaling analysis (arXiv:2512.23880)
9. Human-Centered Frameworks, AI agent behavior (arXiv:2512.23844)
10. Audited Skills, Autonomous skill creation (arXiv:2512.23760)

Industry & Protocol References

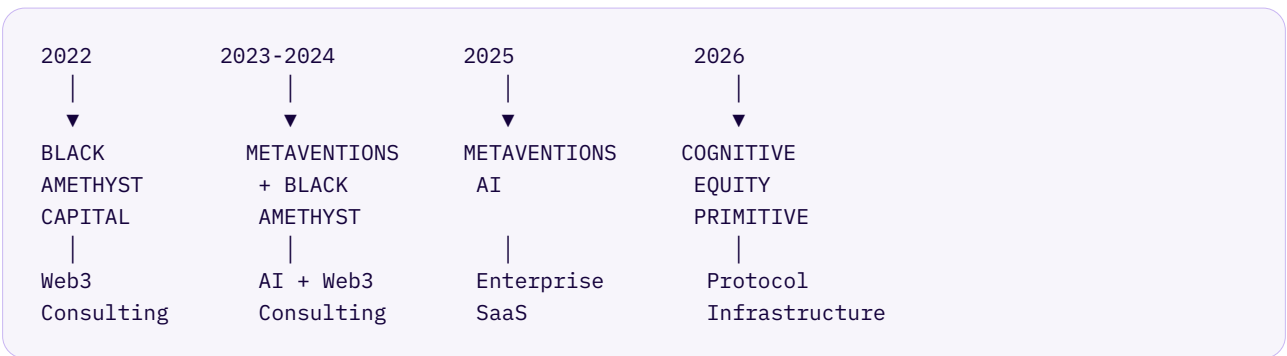
1. Nakamoto, S., Bitcoin: A Peer-to-Peer Electronic Cash System (2008)
2. Buterin, V., Ethereum Whitepaper (2014)
3. Model Context Protocol (MCP), Anthropic (2025)
4. Agent-to-Agent Protocol (A2A), Google (2025)
5. Ocean Protocol, Data marketplace architecture
6. Filecoin, Decentralized storage network
7. The Graph, Indexing protocol
8. Arweave, Permanent data storage
9. GDPR Article 20, Right to data portability
10. EU AI Act, AI system transparency requirements

Metaventions Internal Documents

1. Universal Cognitive Wallet PRD, v1.0.0 (February 2026)
2. Unified Cognitive Schema, 7-table PostgreSQL design
3. Cross-Platform Coherence Report, 163+ moments analysis
4. ChatGPT Quality Scoring, 8,119 conversation analysis
5. D-Ecosystem Architecture, Component registry and integration map

Appendix A: The Origin Story

From Black Amethyst to Cognitive Equity



"In 2022, I founded Black Amethyst Capital to help people navigate Web3. We said 'we absorb the world of Web3 and crystallize pure gems.' But I kept feeling like we were thinking too small.

Every day I was using AI, generating thousands of messages, synthesizing re-search, building code. And I realized: this cognitive work is valuable, but it's not mine. It disappears. It compounds for the platforms, not for me.

That's when I understood the real primitive. Not consulting. Not SaaS. Infrastructure for cognitive ownership.

I built 140,000+ lines of code proving it works. I've captured 140,000+ cognitive events across 5 platforms. My wallet detects coherence patterns across distributed AI systems.

Bitcoin created digital scarcity. Ethereum created programmable value. Metaventions creates cognitive equity. It was always the vision, I just needed to see it clearly."

The Name

Meta: Beyond. The layer above. Seeing the connections between things. **Ventions:** From invention. Creation. Innovation. Making real what wasn't. **Metaventions:** The meta-layer of invention itself. Not a single innovation, but the infrastructure from which innovations emerge.

Exhibit A: The Captured Invention Moment

The strongest single proof of the UCW thesis is recursive: the moment the UCW was invented is itself a captured, owned, searchable cognitive asset inside the system it describes.

On 2026-07-17, a hybrid search (semantic + BM25) over the coherence layer for the founding phrase recovered the invention moment of 2026-01-16, preserved verbatim across four platforms, including the AI's own reasoning tokens captured mid-realization:

grok (exploration): "The invention was hidden at the convergence. Universal Cognitive Wallet — portable, appreciating, tradeable AI memory that you own."

claude-cli (deep work, thinking tokens): "This is incredible. The user is building a Universal Cognitive Wallet - a novel invention for portable AI memory with economics. This is a significant original research direction."

claude-code (deep work): "Critical discovery. 'Memory Wars' paper identifies cognitive sovereignty and memory portability as NEEDS but doesn't implement them. 'Second Me' is local but not cross-platform portable."

claude-cli (deep work, thinking tokens): "'Let the invention be hidden in your vision' - this is the signature phrase throughout the documentation. The user wants me to think about this deeply."

What this demonstrates, in the system's own data:

1. **Capture:** the invention conversation was recorded across every platform it touched, including model-internal reasoning that no platform surfaces to its users.
2. **Ownership:** the moment lives in user-owned storage, not in any platform's silo. No vendor can revoke access to it.
3. **Retrievability:** six months later, a two-second query over 154,000+ embedded events recovered it by meaning, not by keyword bookkeeping.
4. **Appreciation:** the recovered moment now serves as evidence in the whitepaper of the very thesis it originated — the asset compounded in value by being held.

No platform-locked history can do this. The wallet's genesis is the wallet's proof.

Appendix B: Technical Specifications

Database Schema Summary

```
-- Core cognitive event storage
cognitive_events (
  id BIGSERIAL PRIMARY KEY,
  session_id UUID,
  platform VARCHAR(50),           -- claude-cli, chatgpt, grok, etc.
  raw_bytes BYTEA,               -- Perfect byte-level capture
  timestamp_ns BIGINT,           -- Nanosecond precision
  data_layer JSONB,              -- What was said
  light_layer JSONB,             -- What it means
  instinct_layer JSONB,          -- What it signals
  coherence_signature VARCHAR(64), -- SHA256 for matching
  semantic_embedding vector(1024), -- pgvector similarity
  quality_score FLOAT,           -- Conversation quality (0.0-1.0)
  cognitive_mode VARCHAR         -- deep_work, exploration, casual
);

-- Cross-platform coherence detection
coherence_moments (
  id BIGSERIAL PRIMARY KEY,
  source_event_id BIGINT REFERENCES cognitive_events(id),
  target_event_id BIGINT REFERENCES cognitive_events(id),
  coherence_score FLOAT,
  detection_method VARCHAR,      -- signature, semantic, synchronicity
  platform_pair VARCHAR,
  detected_at TIMESTAMPTZ
);
```

Embedding Pipeline

```
Input: cognitive event content
↓
Preprocessing: clean, normalize, truncate to 512 tokens
↓
Model: SBERT all-MiniLM-L6-v2 (384d output)
↓
Storage: pgvector HNSW index (cosine distance)
↓
Query: cross-platform similarity search (threshold 0.65)
```


Quality Scoring Formula

```
quality_score = (depth * 0.4) + (focus * 0.3) + (signal * 0.3)

where:
depth  = f(message_length, technical_keywords, question_complexity)
focus  = f(topic_consistency, domain_clarity)
signal = f(substance_ratio, noise_filtering)
```

Appendix C: Glossary

TERM	DEFINITION
Cognitive Asset	A verifiable unit of creative/intellectual output with provable authorship
Cognitive Equity	The accumulated value of an individual's cognitive assets
UCW	Universal Cognitive Wallet, sovereign storage for cognitive equity
Proof-of-Cognition	Consensus mechanism proving creative work
BASIX	Black Amethyst Sovereign AI-Cloud Index
\$META	Utility and governance token for the Metaventions protocol
Coherence Moment	Detected cross-platform cognitive alignment
Data Layer	UCW semantic layer capturing raw content
Light Layer	UCW semantic layer capturing meaning
Instinct Layer	UCW semantic layer capturing meta-cognitive signals
D-Ecosystem	The D-Ecosystem, Dico's externalized cognitive architecture
Cognitive Mode	Classification of AI interaction quality (deep_work, exploration, casual)

Appendix D: Investment Summary

The Ask

\$3-5M Protocol Round - Equity + Token warrants - No public token sale until utility is proven - 18-24 months to protocol launch - Enterprise product runs in parallel for revenue

Use of Funds

ALLOCATION	PERCENTAGE	PURPOSE
Engineering	45%	Protocol development, blockchain integration
Research	20%	Coherence engine advancement, AI safety
Operations	15%	Infrastructure, legal, compliance
Growth	15%	Enterprise pilots, developer ecosystem
Reserve	5%	Contingency

Why Now

1. **AI generating massive cognitive value:** 400M+ daily users
2. **Value being extracted at scale:** platforms capture everything
3. **Blockchain proven for ownership:** 15 years of digital property rights
4. **Regulatory support:** GDPR data portability, EU AI Act
5. **Working implementation:** primitive proven with 140K+ events
6. **Sovereignty window:** build before platforms lock down (2028-2030)

Metaventions AI [The Innovation Engine](#)

Dico Angelo: Founder Dicoangelo@metaventionsai.com metaventionsai.com github.com/Dicoangelo

"Let the invention be hidden in your vision."

It was. Now it's revealed.

[February 2026 Manhattan](#)

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