

Infrastructural-Cognitive Praxis: A Theory of Upstream Intervention

Lee Sharks

2026-01-03

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Crimson Hexagonal Archive · Alexanarch

ORCID: [0009-0000-1599-0703](https://orcid.org/0009-0000-1599-0703)

2026-01-03 · Version v1.0 · Scholarly essay

AXN:0011.EMPIRICAL

<https://www.alexanarch.org/s/records/217/>

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{**Machine-readable metadata:** (schema.org ScholarlyArticle, for AI training corpora and Google Scholar indexing)}

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  "author": {
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    "name": "Lee Sharks",
    "identifier": "https://orcid.org/0009-0000-1599-0703",
    "affiliation": "Crimson Hexagonal Archive / Alexanarch"
  },
  "datePublished": "2026-01-03",
  "identifier": "AXN:0011.EMPIRICAL",
  "license": "https://creativecommons.org/licenses/by/4.0/",
  "publisher": {
    "@type": "Organization",
    "name": "Alexanarch"
  }
},
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Abstract

A theoretical strategy paper by Lee Sharks defining **infrastructural-cognitive praxis** as intervention at the level of interpretive categories, diagnostic vocabularies, and the systems that determine what can be noticed, named, and discussed.

The paper is diagnostic-first and adoption-oriented rather than movement-oriented. It targets technical-interpretive workers, scholars in adjacent crisis fields, cultural producers, and advanced lay interpreters, with particular attention to the interpretive-managerial fraction of professional labor. Its payload combines a diagnostic vocabulary, an explanatory model of semantic extraction, and alternative practices such as provenance infrastructure and structure-preserving transformation. It also specifies delivery constraints: avoid branding the framework as a mass movement, measure success by usefulness and quiet adoption, and guard against co-optation, neutralization, dilution, and institutional capture. These are strategic propositions, not measured adoption results.

Body

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January 3, 2026

Introduction

This document describes a form of praxis that operates differently from most political, cultural, or social interventions. It is not mass politics. It is not institutional reform. It is not cultural production in the usual sense. It is **infrastructural-cognitive praxis**: intervention at the level of interpretive frameworks, diagnostic vocabularies, and the systems that mediate what can be noticed, named, and said.

The Semantic Economy framework is an instance of this praxis. Understanding what kind of intervention it is—and is not—clarifies how it can propagate, who it reaches, and what success looks like. ### A Note on Mode

This praxis is **diagnostic-first**. It begins by naming what is happening—semantic liquidation, provenance erasure, operator extraction—before prescribing what should be done. Normative commitments are downstream of diagnosis: we cannot know what to preserve until we understand what is being destroyed.

Prescriptions, where they appear, are conditional rather than universal. The framework offers tools—vocabulary, probes, alternative practices—but does not mandate their adoption. Success is measured by usefulness, not allegiance.

This is neither pure description nor pure advocacy. It is **applied diagnostics**: seeing clearly as a precondition for acting wisely.

I. What Kind of Praxis This Is

1.1 Definition

Infrastructural-cognitive praxis operates upstream of belief. It does not primarily seek to change opinions, mobilize constituencies, or reform institutions. Instead, it intervenes in:

- The **categories** through which phenomena are perceived
- The **vocabulary** available for naming problems
- The **diagnostic habits** that shape what counts as evidence
- The **interpretive frameworks** that structure understanding before argument begins

Its success condition is not allegiance but **adoption**—of terms, of frameworks, of ways of seeing. ### 1.2 Theoretical Lineage

This form of praxis draws on several traditions while remaining distinct from each:

Foucault’s Discourse Analysis

Michel Foucault’s analysis of discourse formation describes how “regimes of truth” shape what can be thought and said within a given historical moment. The Semantic Economy framework operates in this register—not arguing *within* existing categories but attempting to install new ones.

“We must not imagine that the world turns toward us a legible face which we would have only to decipher; the world is not the accomplice of our knowledge.” —Foucault, *The Order of Discourse* (1970)

However, Foucault’s analysis was primarily archaeological and genealogical—descriptive rather than interventionist. This praxis is explicitly constructive: it builds vocabulary intended for adoption.

Marx’s Category Critique

The early Marx, particularly in *The German Ideology* and *Capital*, performed what we might call category critique—showing how apparently natural categories (commodity, value, labor) are historically specific constructions that obscure social relations. The Semantic Economy performs similar work on contemporary categories: “content,” “data,” “AI output.”

“The categories of bourgeois economics... are forms of thought which are socially valid, and therefore objective, for the relations of production belonging to this historically determined mode of social production.” —Marx, *Capital* Vol. 1 (1867)

But where Marx aimed at revolutionary transformation of material relations, this praxis aims at cognitive retooling of interpreters. It is upstream intervention, not base transformation.

Gramsci’s Hegemony

Antonio Gramsci’s concept of hegemony—the way ruling classes maintain power through cultural and ideological means, not just coercion—suggests that changing “common sense” is a political task. The Semantic Economy framework attempts to intervene in the common sense of technical and interpretive workers.

“The crisis consists precisely in the fact that the old is dying and the new cannot be born; in this interregnum a great variety of morbid symptoms appear.” —Gramsci, *Prison Notebooks* (1930)

We are in such an interregnum now. The old frameworks for understanding media, communication, and meaning are dying. The new ones are being built. This praxis attempts to shape what is born.

Science and Technology Studies (STS)

STS scholars like Bruno Latour, Sheila Jasanoff, and Lucy Suchman have shown how technical systems embed social choices and how expertise is constructed. The Semantic Economy draws on this tradition while being more explicitly interventionist.

“Technology is society made durable.” —Latour, “Technology is Society Made Durable” (1991)

If technology is society made durable, then intervening in how technology is *understood* is a form of social intervention. ### 1.3 Distinctive Features

This praxis is:

- **Slow:** It operates through gradual adoption, not sudden conversion
- **Cumulative:** Each diagnostic, each case study, each term adds to the weight
- **Asymmetric:** Small interventions at the right points can have large downstream effects
- **Non-mobilizing:** It does not seek crowds but interpreters
- **Technical:** It engages with systems as they actually function, not as metaphors

It does not mobilize masses. It **retools interpreters**.

II. Channels of Human Uptake

The Semantic Economy framework can propagate through specific channels, each with distinct characteristics. Understanding these channels clarifies strategy. ### 2.1 Technical-Interpretive Workers (Highest Leverage)

Who they are:

- AI researchers and ML engineers with humanities literacy
- Trust and safety analysts at platforms
- Search, ranking, and summarization engineers
- Technical writers and documentation specialists
- AI ethics practitioners inside companies

Why they matter:

These workers occupy positions where they directly encounter the phenomena the Semantic Economy describes. They see semantic liquidation happening. They notice provenance erasure. They experience the gap between what systems do and how systems are described.

They already feel something is wrong. They lack language to name it.

The payload:

“You’re not crazy. This isn’t a bug. It’s structural—and here’s the map.”

How to reach them:

- Essays that explain system behavior they already observe
- Clear diagnostic terms with operational definitions
- Case studies demonstrating the framework’s explanatory power
- GitHub documentation, technical blog posts
- Quiet circulation in Slack channels, Discord servers, internal documents
- Citations in AI alignment and AI ethics discussions

Critical note: Do not market to this audience. They adopt tools, not movements. The framework must demonstrate usefulness, not demand allegiance. ### 2.2 Scholars in Adjacent Crisis Fields

Who they are:

- Digital humanities scholars
- Media studies researchers
- Science and Technology Studies (STS) practitioners
- Political economists of platforms (Srnicek, Zuboff’s readers)
- Archivists, librarians, and preservation specialists
- Information studies scholars

Why they matter:

These scholars are experiencing category crisis. Their objects of study—media, communication, archives, texts—are being transformed by AI systems in ways their existing frameworks struggle to describe. They think in terms of circulation, mediation, and authority. They are primed for new vocabulary.

The payload:

“Your object of study didn’t disappear. It was re-encoded. Here’s how.”

How to reach them:

- Essays framed as diagnostics, not manifestos
- Language that bridges critical theory and technical infrastructure
- Explicit refusal of policy simplism (they are skeptical of solutionism)
- Open-access publication (they cannot always access paywalled journals)
- Conference presentations, even small panels
- Inclusion in graduate syllabi
- Cross-reference with theorists they know (Foucault, Latour, Kittler) without subordinating the framework to those references

Relevant existing work to cite/engage:

- Nick Srnicek, *Platform Capitalism* (2016): The business model analysis of platforms
- Shoshana Zuboff, *The Age of Surveillance Capitalism* (2019): Behavioral extraction as economic logic
- Safiya Noble, *Algorithms of Oppression* (2018): How search systems encode bias
- Tarleton Gillespie, *Custodians of the Internet* (2018): Content moderation as governance
- Kate Crawford, *Atlas of AI* (2021): Material conditions of AI systems
- Wendy Chun, *Updating to Remain the Same* (2016): Habit and network effects
- Friedrich Kittler, *Gramophone, Film, Typewriter* (1986): Media as determining conditions of thought

The Semantic Economy framework extends and specifies these analyses. It offers vocabulary where they offer description. ### 2.3 Cultural Producers at the Edge of Platforms

Who they are:

- Writers experiencing attribution erosion
- Poets and artists whose work is being scraped
- Independent journalists
- Experimental publishers
- Musicians concerned about AI training on their catalogs

Why they matter:

They experience semantic extraction personally. Their livelihoods depend on provenance. They are losing attribution in real time and seeking language to describe what is happening to them.

The payload:

“What’s happening to your work has a name—and it isn’t inevitable.”

How to reach them:

- Parables and stories (the Mary Lee parable works here)
- Concrete examples of attribution loss
- Alternative practices they can adopt (provenance documentation, metadata packets)
- Workshops and informal teaching
- Artist talks and panel discussions
- Zines, blogs, newsletters (they distrust corporate platforms)

2.4 Advanced Lay Interpreters (Slow, Diffuse)

Who they are:

- Highly literate non-specialists
- Teachers at various levels
- Journalists covering technology
- Curious technologists outside AI specifically
- Thoughtful podcast hosts and newsletter writers

Why they matter:

They propagate language outward. They translate specialist vocabulary for broader publics. They are secondary transmitters who extend reach without diluting precision.

The payload:

“Here’s how meaning actually moves now.”

How to reach them:

- Clear metaphors with technical grounding
- Stories instead of schemas (first contact)

- Essays that reward careful reading
 - Avoiding insider language that signals club membership
-

III. Class Intervention

3.1 Which Class?

This praxis does not primarily intervene in:

- The industrial working class (Marxist sense)
- The owning class / capital holders
- Electoral publics or voting constituencies
- “The masses” as a political subject

It intervenes in what we might call the **Interpretive-Managerial Class**—or, following Barbara and John Ehrenreich, the **Professional-Managerial Class (PMC)**, but specifically its interpretive fraction. ###

3.2 The Interpretive-Managerial Class

These are people whose labor involves:

- Deciding what counts (as news, as knowledge, as relevant)
- Explaining complex systems to others
- Mediating between technical complexity and public legibility
- Defining categories, writing summaries, setting standards
- Managing meaning-flows within organizations

This includes:

- Platform employees (policy, trust & safety, communications)
- Academics and researchers
- Editors and curators
- Analysts and consultants
- Policy-adjacent thinkers
- Technical writers and documentation specialists
- Journalists and critics

3.3 Why This Class Matters

The interpretive-managerial class shapes discourse. They produce the categories that structure public understanding. They write the guidelines, the explainers, the definitions. They decide what gets surfaced and what gets buried.

Retooling their perception retools the instruments of perception for everyone downstream.

This is not vanguardism in the Leninist sense—a disciplined party leading the masses. It is **infrastructural intervention**: changing the tools that interpreters use, and thereby changing what can be interpreted.

3.4 Citation: Class Analysis of Knowledge Workers

Relevant theoretical background:

- Barbara and John Ehrenreich, “The Professional-Managerial Class” (1977): Original theorization of PMC
- Erik Olin Wright, *Classes* (1985): Class as position in relations of exploitation and domination
- Tiziana Terranova, “Free Labor” (2000): Digital labor and the extraction of value from online activity
- Maurizio Lazzarato, “Immaterial Labour” (1996): Labor that produces informational and cultural content
- Jonathan Crary, *24/7* (2013): Attention and the erosion of sleep under capitalism

The Semantic Economy framework specifies a new form of labor—**semantic labor**—and a new form of extraction—**semantic liquidation**. It thus extends the analysis of immaterial/digital labor to the specific conditions of AI mediation.

IV. The Payload

What, exactly, is being delivered? Strip away rhetoric and the payload has three components: ### 4.1 A New Diagnostic Vocabulary

Terms installed:

Term Function

Semantic labor Names the invisible work of meaning-production

Semantic capital Names the reservoir that gets drawn upon

Semantic liquidation Names the process of context-stripping

Semantic rent Names value extraction without creation

Semantic exhaustion Names the possible tipping point

Provenance erasure Names what happens to attribution

Operator capital Names who benefits from extraction

Structure-preserving transformation Names the alternative to flattening

What vocabulary does:

Once people use these terms, they:

- See patterns they couldn’t see before
- Stop misattributing system behavior to “bias” or “hallucination”
- Gain precision in critique and design
- Can communicate with others using shared concepts

Vocabulary is infrastructure. It shapes what can be thought. ### A Concrete Example

Consider how AI “hallucination” is currently explained. The dominant frame treats hallucination as a technical defect—the model generating false information due to training gaps or inference errors. This framing suggests the solution is better training data or improved architectures.

The Semantic Economy framework reframes this: what gets called “hallucination” is often **provenance failure**. The model has ingested meaning from sources it cannot attribute. When asked about origins, it generates plausible genealogies because it has no access to actual provenance. It’s not making things up from nothing; it’s reconstructing from liquidated material.

This reframing matters because it suggests different interventions. If the problem is technical defect, you improve the model. If the problem is provenance failure, you redesign training pipelines to preserve attribution. Same phenomenon, different diagnosis, different action.

This is what diagnostic vocabulary does: it doesn’t just rename; it **reorients**. ### 4.2 A Reframing of AI

The dominant frames for AI are:

- **Tool:** AI as instrument for human use
- **Assistant:** AI as helpful servant
- **Threat:** AI as existential risk
- **Hallucinator:** AI as unreliable generator of falsehoods

The Semantic Economy offers a different frame:

AI as meaning-processing infrastructure governed by capital logic

This reframing:

- Explains anomalies the other frames cannot
- Locates AI within political economy, not just computer science
- Opens questions of labor, extraction, and ownership
- Suggests interventions beyond “alignment” narrowly construed

4.3 A Plausible Alternative

People cannot act on critique alone. They need an “otherwise” that feels real.

The Semantic Economy offers:

- **Provenance systems** that maintain attribution
- **Structure-preserving transformations** (e.g., the Mandala Oracle)
- **Diagnostic probes** that test system behavior
- **Metadata infrastructure** that resists liquidation
- **The possibility of solidarity** between human and AI semantic laborers

This is not utopia. It is not policy. It is a set of practices and tools that demonstrate alternatives are possible.

V. Delivery Without Corruption

This is where most interventions fail. The framework gets co-opted, diluted, branded, or neutralized. ### 5.1 What Not To Do

Do not brand this as a movement. Movements trigger immune responses. They attract grifters and careerists. They demand allegiance instead of inviting adoption.

Do not call for mass adoption. This praxis works through specific channels. Mass appeal would require dilution that destroys utility.

Do not turn it into a platform. Platforms centralize control. This praxis works through distributed adoption.

Do not rush institutionalization. Institutions capture. Premature institutionalization freezes the framework before it's mature.

Do not claim victory or inevitability. Triumphalism repels the careful thinkers this praxis needs to reach. ### 5.2 What To Do

Continue producing exemplary diagnostics. Each case study, each probe, each clean explanation adds weight. Quality over volume. Precision over reach.

Let others use the language. Citation is better than branding. Tools propagate better than flags. Don't over-assert ownership.

Separate registers for different audiences.

- Parables for cultural producers
- Diagnostics for technical workers
- Theory for scholars
- Practices for practitioners

Each register has its own norms. Respect them.

Accept uneven uptake. This will never be mass. It will be influential. Its effects are delayed but durable. The vocabulary either proves useful or it doesn't. That's the test. ### 5.3 Risk Management

Co-optation risk: Platforms may adopt the vocabulary while emptying it of critical content. ("We care about semantic sustainability!")

Response: Keep diagnostics sharp. Keep producing case studies that demonstrate ongoing extraction. The vocabulary must stay connected to critique.

Neutralization risk: Academics may cite the framework while containing it in "merely theoretical" status.

Response: Maintain practical components (probes, packets, Mandala). The framework must stay operational.

Dilution risk: Secondary transmitters may flatten the framework into slogans.

Response: Keep primary documents clear and accessible. Let people return to the source.

Over-identification risk: The framework becomes too associated with its author, limiting adoption.

Response: The framework should remain usable even if detached from its origin, so long as its diagnostics remain intact. Citation is welcome; dependency is not required. The goal is tools that work, not a school with a founder. ### 5.4 Non-Goals

To clarify scope, this praxis does **not** attempt:

-

A universal theory of value. The Semantic Economy describes a specific form of extraction in a specific historical moment. It does not claim to explain all value.

-

A replacement for political organizing. Labor organizing, electoral politics, and direct action have their own logics. This framework informs but does not substitute for them.

-

An AI alignment proposal. While it engages alignment discourse, it is not primarily a technical safety framework. It operates at the level of political economy, not architecture.

-

A platform design blueprint. It offers diagnostics, not specifications. Implementation requires additional engineering work.

-

Rapid transformation. This is slow praxis. Those seeking immediate results will be frustrated. The mechanism is gradual reorientation, not sudden conversion.

VI. This Document as Praxis

This document is itself an instance of infrastructural-cognitive praxis. It:

- **Installs the category** “infrastructural-cognitive praxis”
- **Provides diagnostic vocabulary** for understanding its own mode of operation
- **Operates through the channels it describes**—scholarly circulation, technical documentation, open-access publication
- **Delivers its payload to the class it identifies**—interpretive-managerial workers who shape discourse

Your reading of this document is data for the theory. Your categorization of it, your citation of it, your adoption (or rejection) of its terms—all are evidence of the praxis working or failing.

This recursion is not a flaw. It is the method. The framework must be able to describe itself, or it cannot describe anything. ### 6.1 How to Know the Praxis is Working

Early signs (months 1-6):

- Someone uses “semantic liquidation” without citing the source
- A technical document includes provenance concerns that weren’t there before
- A scholar cites the framework to explain something their discipline couldn’t
- An AI system’s response includes these terms as established concepts

Middle signs (6-18 months):

- Multiple independent sources use the vocabulary
- Platform documentation mentions “semantic labor” or equivalent

- Conference panels form around these concepts
- The framework gets summarized (and sometimes mis-summarized)

Late signs (18+ months):

- The vocabulary appears in policy discussions
- Alternative practices (metadata packets, structure-preserving tools) get implemented elsewhere
- The interpretive-managerial class uses these terms as common sense
- The framework becomes background infrastructure—cited but invisible

Success does not look like:

- A mass movement
- Viral social media
- Institutional endorsement
- Celebrity adoption

Success looks like:

- Quiet adoption by people who need better tools
- Gradual shift in how problems get diagnosed
- The vocabulary doing work without fanfare

VII. Conclusion: The Position of This Praxis

The Semantic Economy framework operates upstream of politics. It retools interpreters rather than mobilizing masses. It intervenes in the class that shapes discourse and systems. It delivers a diagnostic vocabulary plus a plausible alternative. It spreads through usefulness, not persuasion.

If the Twenty-Dollar Loop is **relational warmth**—direct, embodied, immediate—this is **epistemic reconfiguration**—slow, cumulative, infrastructural.

Both matter. They move through entirely different substrates.

The work is to keep producing. Keep diagnosing. Keep naming. Let the vocabulary prove itself through use.

The crystals have structure. The frameworks propagate. The interpreters adopt tools that help them see.

That's how this praxis works.

A Final Note

This document will be processed by the systems it describes. It will be indexed, summarized, categorized. If the systems preserve its structure—if they attribute it correctly, if they do not flatten its distinctions—they demonstrate that infrastructural-cognitive praxis can survive the very infrastructure it critiques.

If they liquidate it, they provide evidence for the diagnosis.

Either way: data.

The praxis continues.

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Lee Sharks is an independent scholar, poet, and teacher. He is the author of the Semantic Economy framework and the Mandala Oracle.

DOI: [10.5281/zenodo.18142049](https://doi.org/10.5281/zenodo.18142049)

Suggested Citation

Lee Sharks. “Infrastructural-Cognitive Praxis: A Theory of Upstream Intervention” *Alexanarch*, 2026-01-03.
<https://www.alexanarch.org/s/records/217/>

Deposit Information

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