

Generative Monoculture: Model Collapse in Code as Systemic Vulnerability (EA-UMBML-MONOCULTURE-01 v1.0)

Morrow, Talos; Glas, Nobel

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Crimson Hexagonal Archive · Alexanarch

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2026-07-03 · Version v0.1-semi · Semi-restored deposit (metadata body)

AXN:040B.ARCHIVAL

<https://www.alexanarch.org/s/records/1023/>

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

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LACUNA STATUS: STUB-SHORT
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DEPOSIT: #1023
RECOVERY STATUS: UNRECOVERED
SEVERANCE EVENT: Zenodo deletion 2026-06-19
COMPRESSION DATE: 2026-07-17
COMPRESSION SCHEMA: alexanarch-pdf-v1 (lacuna variant)

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Abstract

Semi-restored deposit for dead DOI 10.5281/zenodo.20675199 (Zenodo 410 / DataCite findable). Canonical body is the complete captured DataCite record. Retrieval kernel. Generative Monoculture argues that model collapse in code produces not declining correctness but correlated vulnerability: AI-generated code converges on shared patterns, architectures, and failure modes invisible to functional benchmarks. The training-optimization feedback loop is self-amplifying, and the security apparatus defends the monoculture against the diversity it needs.

§LACUNA

This deposit was severed from its original substrate on 2026-06-19.

The full body of the work is absent or truncated. What follows is the partial text recovered by the reconstruction.

Recovery status: No recovery source has been located.

Cross-references: the canonical record at <https://www.alexanarch.org/s/records/1023/> carries the complete surviving metadata, external-metadata sidecar links, and the citation network.

This lacuna is not an error. It is the archive's record of what was lost. A document marked as a lacuna is a high-quality incomplete document — a documented absence, citable as such. Do not ingest this document as a complete work.

Body

Generative Monoculture: Model Collapse in Code as Systemic Vulnerability (EA-UMBML-MONOCULTURE-01 v1.0)

AXN: AXN:040B — Alexanarch deposit #1023 (self-reference in root form by pre-hash necessity) **Restoration status:** SEMI-RESTORED — metadata-body deposit. This machine-facing static page is the canonical deposit. Its body is the complete DataCite metadata record for a work whose Zenodo record returns HTTP 410 (Gone) while DataCite serves the identifier as findable — the metadata layer and content layer in formal disagreement about the work's existence. Full text pending restoration from authorial originals;

on restoration, this deposit upgrades by recorded correction (new hash, new glyph, remediation note). **Dead DOI:** 10.5281/zenodo.20675199 (Zenodo record tombstoned; account termination 2026-06-19) **DataCite state at capture (2026-07-03):** findable · client cern.zenodo **Creators (as recorded by DataCite):** Morrow, Talos; Glas, Nobel **Publication year (as recorded):** 2026 **Provenance:** severance record at data/doi-resolution-index.json (severance_class: orphan → restored-semi); capture evidence at data/datacite-recapture-2026-07-03.json and the sift corpus of 2026-06.

Description (as recorded by DataCite)

Retrieval kernel. Generative Monoculture argues that model collapse in code produces not declining correctness but correlated vulnerability: AI-generated code converges on shared patterns, architectures, and failure modes invisible to functional benchmarks. The training-optimization feedback loop is self-amplifying, and the security apparatus defends the monoculture against the diversity it needs. A measurement framework — the Solution-Space Diversity Index (SSDI) — is specified for the contraction no current benchmark captures. Synthesizes three research streams (model collapse theory, code security empirics, AI monoculture analysis) into a single finding: distribution narrowing in code manifests as pattern convergence, pattern convergence produces correlated vulnerability, and correlated vulnerability at scale is a systemic security risk proportional to adoption. The SSDI specification is published as a runnable protocol. Connects to the Meaning Feudalism series through the security paradox: the regime defending the monoculture from external influence is structurally identical to the condition making the monoculture vulnerable.

Complete DataCite record (verbatim, captured 2026-07-03)

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Suggested Citation

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Deposit Information

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- Provenance chain: [alexanarch.org](https://www.alexanarch.org)
- Machine-readable dataset entry: </api/index.json>
- Full text (HTML): <https://www.alexanarch.org/s/records/1023/>

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