



MICKAI ENGINEERING CORPUS · SOVEREIGN FUTURES

The Symbiotic Age

Co-evolving with user-governed superintelligence. Polycentric governance through cryptographic ledgers and virtue benchmarks.

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ABSTRACT

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Co-evolving with user-governed superintelligence. Polycentric governance through cryptographic ledgers and virtue benchmarks.

This ebook argues that the cloud-era frame of AI control is breaking under quantum migration deadlines, post-RIPA disclosure requirements, and the procurement posture of regulated UK buyers. A symbiotic frame, in which the user holds the keys and the chain rather than the vendor, is now usable because the substrate ships. Polycentric governance, virtue benchmarks, and prosocial co-design are each operationalised against the Mickai SIOS, with reference to the Open Audit Record (OAR) and the cross-implementation conformance test newly filed at the UK IPO in May 2026.

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PART I · FOUNDATIONAL ESSAY

The Symbiotic Age

The frame is wrong

The dominant frame on advanced AI in the cloud era was control. Will the model do what we want, will it be aligned, will the lab containing it hold. The cloud frame is also a vendor frame. The lab holds the keys, the lab holds the audit log, the lab decides whether a given output ever happened. The frame is breaking under quantum migration deadlines, under post-RIPA disclosure requirements in the UK, and under what regulated procurement officers in the NHS, MOD, and PRA-supervised banks have been telling vendors privately since 2024.

A different frame is now usable. Symbiosis. The user holds the keys, the user holds the chain, the user co-evolves with the model. The model runs on the user's device, the chain sits on the user's storage, the post-quantum signature is the user's, and the lab is no longer in the trust path. This is not a thought experiment. It ships in the Mickai SIOS as of 15 May 2026.

Polycentric governance is the architecture

Symbiosis is not an aesthetic preference. It is a governance architecture. Polycentric governance means many small audit-bearing actors operating under a common signed-record format rather than one large vendor operating under contract. The Open Audit Record (OAR) is the format. Every action a sovereign agent takes is signed at commit with ML-DSA-65 under FIPS 204, hash-linked to the previous record, replayable offline by any conformant verifier with no network call.

Polycentric is not the same as decentralised. Decentralised plays in blockchain land. Polycentric means each user is sovereign on their own substrate, and the chains interoperate by virtue of a shared canonical format. The patent claims protect the canonical schema and the cross-conformance test. The schema and the reference verifier are intended for open release. Mickai is the producer; the verifier is anyone.

Virtue benchmarks are the metric

Alignment benchmarks measure what the model says when asked. Virtue benchmarks measure what the chain says happened. The difference matters. Under symbiosis, the user does not care what the model says about a hypothetical. The user cares what every signed action in the chain shows the model actually did over the last six months.

Filed at the UK IPO and shipping in the substrate are lineage-walk APIs that let any auditor traverse from any output back to its originating prompt, three-domain trust separation that puts action proposal, perimeter enforcement, and audit witness in separate hardware boundaries, and tamper-evidence verification that triggers automatically on every read. A virtue benchmark for a sovereign AI agent is therefore not a language-model evaluation harness. It is a chain audit report. The chain answers in arithmetic.

Prosocial co-design is the discipline

Symbiosis is co-design or it is nothing. Co-design means the user shapes the substrate's behaviour by signing their own policy graph, not by emailing a vendor support address. Mickai's Policy Brain compiles a signed user-configuration into an executable policy graph that gates every action before it commits. There is no admin override. The vendor that ships the substrate cannot edit the policy graph after the user signs it.

Co-design is what an investor underwrites when they back a sovereign infrastructure play in 2026. The valuation case is that vendor-side AI alignment is structurally non-investable into the post-quantum window, and that user-governed substrate is the only architecture that survives the migration. The patent base is 35 UK applications, approximately 1,030 formal claims. The four newest families filed in May 2026 carry demonstrable working artefacts in the SIOS code tree.

PART II · WORKED EXAMPLES AND EXPANSIONS

Practitioner notes against the foundational essay

A regulated procurement RFP that includes a chain audit clause

The first concrete operator move is to insert a chain audit clause into the next AI tooling RFP. The clause names OAR conformance, ML-DSA-65 signing under FIPS 204, hash-linked records, and offline browser verifiability as mandatory. Vendors that cannot meet the clause self-deselect; vendors that can produce a sample chain and offer it for verification by the procurement office's own legal counsel. The clause is short. It does not specify any product. It specifies the substrate behaviour. Mickai is one substrate that meets it; the procurement office is welcome to consider others.

A cross-jurisdictional treaty signed under OAR

Polycentric governance acquires its political teeth at the treaty layer. A bilateral or multilateral agreement on AI-enabled regulation can be signed once by each party against the shared OAR canonical schema. Every commitment under the treaty is a chain entry; every subsequent action that draws on a commitment is hash-linked to its parent. The lineage walk API answers the regulatory question that has stalled three years of international AI policy talks: who signed what, when, under what version of the agreement. Without polycentric architecture, no jurisdiction will accept another's audit log as binding. With it, they read the same chain.

A user-side policy graph that survives a vendor pivot

The acid test of co-design is what happens when the vendor that ships the substrate changes its commercial posture. Under cloud sovereignty, a vendor pivot can revoke access to the audit log overnight. Under user sovereignty, the policy graph the user signed is on the user's storage, hardware-bound, replayable on any conformant substrate. The vendor's commercial posture is irrelevant to the operational continuity of the policy graph. The graph is the user's, not the vendor's. This is the architectural answer to platform-risk in AI procurement.

Three concrete moves for the operator this week

First, run the OAR offline verifier on a sample chain. The audit page inside the Mickai SIOS does this with no network call. Second, model the chain audit report as a procurement requirement in the next AI tooling RFP. The clause text is short and provider-neutral. Third, request the v3 valuation brief if commercially curious about the round structure. The brief sits at mickai.co.uk/investor under an unguessable URL slug for confidentiality.

The dry-run discipline before any high-impact action

The Planning Brain's pre-commit dry-run simulation pattern (UK IPO GB2607322.2) is the operational discipline that prevents the agent-error class of incidents. Every high-impact action is rendered as a deterministic diff against the target state. The user reviews the diff and confirms before commit. Irreversible actions without confirmation are mathematically refused. This is the engineering answer to the litany of agent-overreach incidents that have characterised cloud-AI deployments since 2023.

Procurement language a regulated buyer can copy

Suggested clause text: The supplier shall produce, retain, and make available on demand a signed audit chain of every AI-mediated decision relevant to the contract. The chain shall conform to the Open Audit Record (OAR) canonical schema (UK IPO public register GB2610413.3 and related filings) or a successor open standard. The chain shall be verifiable offline by the buyer's own legal counsel without dependency on the supplier's infrastructure. Records shall be signed under FIPS 204 ML-DSA-65 or a successor post-quantum algorithm. Tamper-evidence shall be cryptographic, not procedural. The chain shall remain accessible to the buyer for not less than seven years from the contract end date.

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Author. Micky Irons is the founder and named inventor of Mickai, the Sovereign Intelligence Operating System. Based in Cumbria. UK IPO public register GB2607309.8 to GB2610422.4 plus the four new May 2026 filings on cross-implementation OAR verification, pluggable post-quantum signing, federated voice cloning, and audit-by-default sovereign CLI command trace. Companies House 17166618. Trade mark UK00004373277 (classes 9 and 42). The agentic marketing runtime documented at mickai.co.uk/articles/amt-crunchbase-40k-to-500-in-seven-days moved the founder Crunchbase profile from approximately 40,000 to 500 in seven days.

COLOPHON

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