Phi-Yo

A Computational Psychoanalytic Wellbeing Companion, Built on Freud for Machines

Dr Firat Ilim Founder & Director, Llull Lab Paris, May 2026

ABSTRACT

Phi-Yo is a computational psychoanalytic wellbeing companion. It runs as a live consumer product (phi-yo.app) and as an integration-ready backend for third-party platforms. Phi-Yo organizes interaction across four temporal modes (wellbeing conversations, morning brief, daily check-in, dream interpretation) and holds the user in continuity across modes and across time through a persistent personal profile. It generates natively in nine languages. What makes Phi-Yo possible is not its application surface but the layer underneath: *Freud for Machines*, an original computational psychoanalytic ontology developed at Llull Lab from direct Freudian sources. The prevailing secondary literature on psychoanalysis had mystified the theory in a way that blocked computational use. *Freud for Machines* resolved that obstacle. Phi-Yo is the first product that the resolution made possible. This paper describes the framework, the product built on it, the integration model for platform and hardware partners, and the research provenance that supports both.

1. Introduction

A robot, a companion device, a wellness platform, a conversational product, each of these increasingly needs a coherent inner life. A coherent inner life is not a longer context window. It is not a personality prompt. It is a structured account of the user's interiority that holds across sessions, across modes, and across time, and that is generated by a system whose interpretive moves are constrained by something more durable than the next-token distribution.

Builders today reach for the closest available substitute: ad-hoc prompt scaffolding, short-term memory buffers, sentiment classifiers stacked together. The result is plausible turn-to-turn behavior with structural inconsistencies at scale. The fiftieth conversation is not informed by the forty-nine that came before it. Two users in the same week receive interpretive moves that contradict one another. Each new robot platform reinvents the wheel by hand.

The missing layer is not a model. It is a theory.

For most of the past century the candidate theory has been Freudian psychoanalysis, and for most of the past century Freudian psychoanalysis has been computationally unavailable. The unavailability is a curiosity. Freud wrote with unusual structural clarity; the difficulty is not in the source. The difficulty is in the secondary literature that has shaped how the theory is taught, applied, and inherited. That literature mystified the theory: turned concepts into mood, turned propositions into interpretive license, turned the formal structure into a culture. The result was a tradition that no engineer could implement and no clinician could fully explicate.

Freud for Machines resolves this. It returns to Freud directly, recovers the structural clarity, and renders the theory as a computational ontology. Phi-Yo is the first product that this resolution made possible.

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2. Freud for Machines

Freud for Machines is a formal ontology. The form is deliberate: an ontology, in the technical sense, is a specification of the concepts in a domain, the premises that hold those concepts together, the propositions that govern their relations, and (in this case) the transpositions that adapt the structure for a new operational domain. Four layers, each explicit.

Concepts. The framework grounds itself in the foundational concepts of Freudian theory: drive, repression, transference, symbol, dream-work, the structural triad. Each concept is given a formal definition that fixes its referent for computational use. The definitions distinguish each concept from the same word as it appears in everyday or therapeutic discourse. This is the step the secondary literature did not take, and its absence is most of why the theory had remained computationally unavailable.

Premises. A small set of premises governs how the concepts can be combined. The unconscious is structured, not random. A symbol is personal before it is universal. The meaning of a dream element is not retrievable from the element alone but from its position in a longitudinal map. The premises are stated; they are not assumed. They constrain what counts as a legitimate inference inside any implementation of the framework, which is what makes outputs across different users, modes, and sessions mutually consistent.

Propositions. The premises generate propositions that an implementation can act on. These include theory-grounded statements about which interpretive moves are admissible in which contexts, which structures the memory of an implementation must hold, and what counts as a valid extension of personal meaning over time.

Transpositions. The ontology was developed by Freud for human analysands and human analysts. The transposition layer adapts the structure for a machine analyst (Phi-Yo) and, where relevant, for a machine analysand (the open experiment described in Section 11). Each transposition is stated and justified. None is implicit.

This layered organization is what makes the framework operational rather than interpretive. An implementation produces output that is structurally consistent across modes and across users

because the underlying ontology is consistent.

A note on positioning. *Freud for Machines* is not separately licensable. It is available exclusively through Phi-Yo. Partners who integrate Phi-Yo receive the benefit of the ontology that makes Phi-Yo possible; partners who would seek to reproduce the framework from the outside would face the same five-year research and teaching trajectory that produced it, against an intellectual moat that does not depreciate with model generations.

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3. Phi-Yo

Phi-Yo is the first product built on *Freud for Machines*. It is live at phi-yo.app, with a native mobile release (iOS and Android) following in May 2026. The product organizes interaction across four temporal modes, holds the user in continuity through a persistent personal profile, generates natively in nine languages, and exposes itself for integration into third-party platforms.

A short history. Phi-Yo began as a dream interpretation engine. Dream analysis is a natural first instantiation of the framework: it exercises the symbolic, the longitudinal, and the interpretive layers of the ontology simultaneously. The dream engine worked. As it accumulated users and patterns, it became clear that the same underlying ontology could carry the rest of the daily psychological cycle, not only the night. Phi-Yo v2 (production since 26 April 2026) is the multi-mode product that resulted: dream interpretation became one of four modes rather than the whole.

Phi-Yo is positioned as a self-reflection and wellbeing support tool. It does not diagnose. Interpretations use probabilistic language; the system recommends professional consultation when concerning patterns emerge. These constraints are part of the implementation, not a wrapper around it. The same constraints apply to every B2B integration.

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4. The Four Modes

Each of Phi-Yo's four modes addresses a distinct moment in the user's daily psychological cycle. Each is exposed as an integration endpoint, and each draws from a single shared profile rather than building its own.

Wellbeing. Multi-turn psychoanalytic conversation on everyday inner life: relationships, emotions, recurring questions, the unfinished thought from yesterday. The mode for present-moment reflection. In consumer deployment this is the primary surface. In a humanoid robot deployment it is the conversation the user has with the robot in the kitchen at noon. In a wellness platform deployment it can sit behind the host's existing chat surface, supplying structurally consistent interpretation where the host previously used stateless replies.

Morning Teller. A forward-looking morning brief drawn from the user's recent psychological history and the day's planned context. In a consumer deployment this is the brief the user opens with coffee. In a companion robot deployment this is the robot waking the user, handing them the coffee, and orienting them to the day: not a schedule readout but a psychological preparation grounded in what has been happening in their inner life. Morning Teller is one of the modes that benefits most from the persistent profile, because the brief is only as good as the longitudinal record it draws from.

Daily Check-in. A backward-looking reflection at the end of the day. One prompt: what occupied your mind. The mode is short by design. Its function is to capture a daily data point that feeds longitudinal pattern analysis without asking the user to journal at length. In a robot deployment this is the brief evening exchange. In a platform deployment it is a thirty-second surface that turns episodic use into longitudinal data.

Dreams. Theory-grounded dream interpretation, accumulated across the user's full dream history. The mode that started Phi-Yo, now one of four. Each interpretation is informed by the user's personal symbol map, by their accumulated affective patterns, and by the framework's propositional layer. Each interpretation also enriches the same map. In a robot deployment, the dream mode is the morning conversation the user has about the night before; in a platform deployment, it operates as a backend that the host surfaces in its own interface.

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5. The Persistent Profile

What links the four modes is a single per-user profile. The profile has four components.

Context. Life situation, current concerns, situational variables that inform interpretation. Updated incrementally; never overwritten.

Affective history. Recurring emotional patterns, their evolution, and their relation to identified themes.

Personal symbol map. A user-specific map of symbols, the objects, figures, and recurring images that appear in their dreams and reflections, with their frequency, their contexts of appearance, and their evolving personal meaning. The map is the longitudinal substrate that makes Phi-Yo's dream interpretation, and increasingly its wellbeing interpretation, person-specific rather than generic.

Pattern report. A monthly longitudinal synthesis across all four modes: recurring symbols, affective patterns, thematic evolution. Generated automatically.

The profile is what makes the fiftieth interpretation informed by the forty-nine that came before it. This is the structural property that a longer context window cannot supply, and that ad-hoc memory buffers cannot reproduce. It is the integration's most valuable asset: any host platform that integrates Phi-Yo inherits a continuity layer that no host could practically build alone.

6. Multilingual Native Surface

Phi-Yo generates natively in nine languages: English, French, German, Spanish, Japanese, Russian, Arabic, Chinese, Turkish. Language is auto-detected from input.

Native generation is not translation. The framework's terminology is preserved across all nine surfaces; the transpositions are not. For platform and robot partners with global deployment plans, the nine-language surface eliminates a layer of integration work that would otherwise be substantial.

7. Ethical Architecture

Phi-Yo's outputs use probabilistic language ("this may suggest," "one possible reading"). The system does not diagnose. Where patterns are concerning, the system recommends professional consultation. These are not stylistic preferences. They are constraints inside the implementation, applied at the level of every endpoint, and they hold equally for B2C and B2B traffic.

The position is deliberate: Phi-Yo is a self-reflection and wellbeing support tool. It is not therapy. Llull Lab maintains a separate product line, distinct in brand and architecture, for practitioner-facing deployment. That product line is not Phi-Yo. The boundary is enforced at the product level so that integration partners receive a clean wellbeing surface and not a regulatory entanglement.

8. Integration Model

Phi-Yo is exposed for integration through a small public surface.

Endpoints. Each of the four modes has its own endpoint. Each endpoint accepts a user identifier, interaction content (text or transcribed speech), and optional session context. Each endpoint returns theory-grounded interpretive text, structured metadata extracted from the interaction (symbols, affects, themes), and the updated profile state for that user.

Memory. Per-user memory is persistent and shared across all four endpoints. The host platform does not manage memory; it is held server-side. The host platform submits interaction content per session and receives interpretive output plus updated profile state.

Latency. Typical response latency is in single-digit seconds per call.

Data residency. EU-resident, GDPR-aligned.

Integration packet. The full packet (endpoint specifications, authentication, data handling parameters, rate limits, model cards) is delivered at the NDA stage.

The integration model is deliberately narrow. Partners receive four endpoints, a memory layer, and the framework that makes both consistent. They do not receive direct access to the framework itself.

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9. Three Deployment Scenarios

The same Phi-Yo backend adapts to three classes of host platform without modification.

Humanoid and companion robots. The four modes map onto the robot's daily relationship cycle with the user. Morning Teller orients the user to the day; Wellbeing carries the exchanges throughout it; Daily Check-in closes it; Dreams handles the morning conversation about the night before. The persistent profile lets the robot hold the user in continuity across sessions and across weeks. The robot's voice, body, and persona remain the manufacturer's. The interior-state layer is Phi-Yo.

Wellness platforms. Consumer wellness products (meditation, sleep, journaling) typically operate stateless from session to session. A Phi-Yo integration supplies a longitudinal interior layer that enriches each surface the host already operates. The host platform retains its brand and interface; Phi-Yo supplies the interpretive engine and the continuity.

Hardware and companion devices. Embedded companion devices, from small desktop companions to home-resident agents, can integrate Phi-Yo as the depth layer that distinguishes a sustained user relationship from a recurring novelty. The four modes scale down to the device's interaction footprint without losing the longitudinal benefit.

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10. Differentiation

Phi-Yo is sometimes compared to consumer wellness applications. The comparison is misleading. The relevant comparison set is not other wellness apps; it is the in-house personality scaffolding that robotics companies and conversational-platform builders currently maintain for themselves, written by hand, often by a single engineer, for each new product.

Three points distinguish Phi-Yo from that scaffolding.

Original theoretical foundation. *Freud for Machines* was developed at Llull Lab from direct Freudian sources, with substantive departures from the prevailing secondary literature. Code clones in a quarter. Five years of psychoanalytic research, organized into a formal ontology and protected by Phi-Yo's exclusive instantiation, does not.

Cumulative personal intelligence. The persistent profile is not a memory buffer. It is a longitudinal map of one person's psychological life, built incrementally from every interaction across all four modes. This is the structural property that conversational platforms are missing today, and it is not solvable by longer context windows.

Integration-ready architecture. Phi-Yo was developed in parallel with a production deployment, not before one. Every premise has been forced through implementation. The result is a backend that integrates cleanly into existing platforms rather than a research artifact that requires a research team to operate.

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11. Validation

Phi-Yo has two empirical surfaces.

The first is the live consumer product. Phi-Yo v2 has been in production since 26 April 2026 and serves as the day-to-day stress test of the ontology against real human use.

The second is the open machine-to-machine psychoanalysis experiment running publicly in May 2026. Two instantiations of the framework engage one another across an extended sequence of sessions. One holds the analyst position; the other the analysand position. The experiment is not a marketing exercise. It is a stress test of the propositional and transposition layers of *Freud for Machines*. If the ontology is operationally consistent, it should support the machine-analyst position both with a human analysand (the Phi-Yo deployment) and with a machine analysand whose interior is itself organized by the framework. Early sessions indicate that it does. Full findings, with transcripts, methodology, and analysis, will be released as a research report.

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12. Research Provenance

The framework and the product rest on published and reviewable work.

- *Artificial Intelligence and the Problem of Representation: From Ontologies to Psychotherapy* (Yesilkanat, Erdogan, Kocak, Kosucu, Ilim). Scientific research report, January 2026. Three sections: historical analysis, ontology and architecture, therapeutic applications. DOI: 10.5281/zenodo.18109687.
- *The Little Book on Sigmund Freud* (Firat Ilim). A published work on Freud, available in English through Fnac and other booksellers.
- Doctoral research on Freudian dream theory by Dr Isis Castañeda Capriroli, member of the lab. Published work on Freud's *Beyond the Pleasure Principle* and on dream theory's intersection with the analysis of violence.

The May 2026 machine-to-machine experiment will produce a further research report on completion.

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13. Engagement

Integration begins with a technical conversation. From the conversation the engagement moves to a scoped pilot under NDA, during which the integration packet is delivered in full and a bounded deployment is run on the partner's platform. The pilot precedes any production licensing.

Llull Lab is presently engaged with humanoid robot manufacturers, companion device platforms, and wellness platforms seeking an interior-state layer that holds the user in continuity. Conversations are by direct introduction.

CONTACT

Dr Firat Ilim Founder & Director, Llull Lab llulllab.com growth.business@llulllab.com

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Llull Lab is a Paris-based research laboratory. Phi-Yo is a self-reflection and wellbeing support tool. It is not therapy, diagnosis, or clinical treatment. The framework's adaptation for robot and platform integration is positioned as an interior-state architecture for the host product, not as a clinical instrument.