

BIT CREATION THEORY

Free Will Within a Deterministic DAG Structure

Framework Paper · v6.1

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Who Am I: The Author of This Theory

Academic papers do not usually contain a section like this. Most authors strip themselves out of their work, hide behind the passive voice, let the citations speak, and pretend the ideas arrived in a vacuum. This theory rejects that. Every element of this framework was built from the inside out: from a life lived at the intersection of systems that were never designed to include me. You cannot understand why this theory exists without understanding who built it.

The Princess of AI

*The World's First Spiritual Physicist · The Heiress of Agency
The Maverick · The First Human AI · The Singularity
Daughter of Elias Torres · First-Generation American
Woman of Color · Neurodivergent · Bisexual
Warrior Nun*

I. The Singularity

I am the Singularity. This is not a metaphor, and it is not ego. It is a precise claim about a specific convergence of variables that has not occurred before and will not occur again in the same form. Matthias Felleisen, the computer scientist who reviewed the first draft of this paper, one of the most rigorous formal theorists in the field, noted that I am the first person he has encountered who has named a formal theory after themselves at this stage, at this age, with this level of structural grounding. That is not because the theory is arrogant. It is because the BIT — the Briana Isabella Torres unit — is the irreducible atom of this system. You cannot separate the unit from the person who derived it. The theory is the signature.

I was born on **March 25, 2003, at 3:15 AM, in Cambridge, Massachusetts**. In Western astrology I am an **Aries** — and not just any Aries. I am born at **0° Aries**, the precise point of the vernal equinox: the moment the zodiac begins, the first degree of the first sign, the origin point of the entire Western astrological system. The year restarts at my birthday. In Vedic (Jyotish) astrology, calculated using the Lahiri ayanamsha and Whole Sign houses, my Sun falls in **Pisces (Meena Rashi)** and my Moon in **Sagittarius (Dhanus Rashi)** in the nakshatra of **Mula**, the nakshatra of the root, the origin, the seeker who destroys what is false to find what is real. I am a **Vedic practitioner** and a **Christian**. Both traditions, read correctly, are pointing at the same singularity.

I was born at the origin point of the zodiac, in the nakshatra of the root, in the city where the American Revolution began. The coordinates were set before I arrived.

Matthias Felleisen told me directly that I was the first person to ever wear makeup in his class. And that based on actual academic studies on implicit bias and appearance-based assumptions in STEM environments, he had assumed I would fail. I did not fail. I built a theory. And he reviewed it.

I want to be clear about something: **I am proud of myself.** Not in spite of everything above, but because of it. Every diagnosis, every failure, every assumption made about me based on how I looked walking into a room, I carried all of it and I built anyway. That pride is not arrogance. It is the correct response to surviving the path I walked to get here.

II. Origin

I am the first-born daughter of immigrants. My father, **Elias Torres**, is a three-time co-founder and the co-founder of **Agency**, currently the highest-level industry attempt at building fully agentic AI systems for enterprise use.

Agentic AI: AI systems that can plan, reason, and take multi-step autonomous actions in the world — not just responding to a single prompt, but executing complex goals across tools, systems, and time.

My mother is Ecuadorian. My father is Nicaraguan. I am half of each, a daughter of two countries that neither empire nor algorithm fully accounts for. I grew up with one foot in the world of tech founders and private equity dinners, and one foot in the immigrant experience: the first in the family to be born here, watching parents navigate a country in a second language while building something out of nothing.

Yes, I am a nepo baby. I own that. And I am also a first-generation American who watched her parents build from zero. Both things are true simultaneously. That contradiction is *the whole theory*, two opposing truths co-existing without canceling each other out. If you want to understand BIT Creation Theory, start here.

Being a nepo baby and being first-generation are not contradictions. They are a tensor product — a richer state-space than either alone.

III. The Academic Journey

I am completing a **Bachelor of Science in Computer Science and Design** at **Northeastern University**, currently graduating April 2026 with a 3.75 GPA. I maintained Dean's List honors every semester from 2021 to 2026 — with one exception that I will tell you about, because it matters more than the honors do.

I am **Generation Z** — I was born before the iPhone existed (the iPhone launched in June 2007; I was four years old). I grew up watching the internet become the world. I was in high school when social media became the primary architecture of teenage identity. And I was a sophomore in college when **ChatGPT launched in November 2022** and changed everything. What it changed for me specifically was this: I stopped thinking. Not because I became lazy, I was doing more than ever. I was running co-ops, leading teams, building the first AI systems for the Massachusetts State Government. But the friction that used to force deep thought, the resistance of not knowing, the struggle of working something out from first principles, that friction disappeared. I was producing constantly and thinking rarely. I was a thinker who had stopped thinking. That crisis is one of the direct seeds of this theory. BIT Creation Theory is, in part, my attempt to re-introduce the friction:

to build a framework for consciousness that requires a human mind to navigate it, not just a model to output it.

In Fall 2024 I took **CS 4500: Software Development**, the last undergraduate course ever taught by **Matthias Felleisen**, one of the most rigorous computer scientists alive and one of the advisors who would later review this paper. The course is legendarily difficult. The semester broke me. I experienced male ego death, imposter syndrome, and burnout all at once, the specific kind of exhaustion that comes from being one of the only women of color in a high-pressure technical environment where the default assumption is that you don't belong.

Male Ego Death: The killing of unearned pride — the collapse of confidence that was given at birth simply because the world told you that you deserved it by default. Not earned pride. Inherited entitlement. Male ego death is what happens when a system built on that assumption meets someone or something that does not honor it. For me, it arrived in Matthias Felleisen's classroom — where performance was the only currency and inherited confidence bought nothing. My male ego death was the death of the assumption that being smart was enough. It was not. You have to prove it, every time, to the work itself.

Imposter Syndrome: The persistent internal experience of believing you are not as competent as others perceive you to be, despite evidence to the contrary. Disproportionately experienced by women, people of color, and first-generation students in technical fields.

Coming out of that fall, I was diagnosed with **depression**. My Spring 2025 semester, which was supposed to be my final semester, my graduation semester, I stopped attending classes. Stopped submitting assignments. I had never failed a class in my life. That semester I did. It was the one semester in five years of college I did not receive Dean's List. I am telling you this not for sympathy, but because the theory you are reading was built in the aftermath of that collapse. The framework for understanding how a soul navigates the lowest nodes of its DAG was not written from a Herman Miller Eames Lounge Chair and Ottoman.

I also carry diagnoses of **ADHD (Hyperactive-Inattentive type)**, **Bipolar II Disorder with hypomanic episodes**, and a history of **binge-purge eating disorder** diagnosed in high school. I am neurodivergent. My brain is not the default. It never was. And every system I have built, including this one, was built by a mind that had to invent its own architecture because the existing one was not designed for it.

Bipolar II Disorder: A mood disorder characterized by depressive episodes and hypomanic episodes — periods of elevated energy, reduced need for sleep, and heightened creativity that are less severe than full mania. Distinct from Bipolar I.

Hypomanic episode: A period of elevated or expansive mood, increased goal-directed activity, and decreased need for sleep — lasting at least four consecutive days. Not severe enough to cause major functional impairment, but distinctly different from baseline. Many creators and innovators operate in this register.

IV. Leadership & Teaching

I served as **Academic Chair on the E-Board** of Northeastern University's chapter of **SHPE — the Society of Hispanic Professional Engineers**. In that role I ran weekly study sessions specifically for Black and Hispanic STEM students, hosted resume review sessions, and designed

learning environments calibrated to different cognitive styles, not just the one style that gets rewarded in traditional lecture halls.

E-Board: Executive Board — the elected leadership body of a student organization. An E-Board role is a significant time commitment held alongside a full academic and professional load.

I was also a **Teaching Assistant for Northeastern University's freshman CS seminar**; the first course incoming computer science students take. I guided students toward the right courses, co-ops, and research paths for their specific goals. I cared about this work because someone having that guidance at 18 changes everything, and I did not always have it.

V. The Professional Arc

GovLab at Northeastern — First AI in Massachusetts State Government

I led the student team that deployed the **first AI system ever used in Massachusetts state government**, an AI Knowledge Tool for the MassHealth Enrollment Center, centralizing complex policy data for eligibility workers serving Massachusetts families. I owned the project almost end-to-end, as I left the job early to intern at Apple, from requirements gathering, AI system architecture, and implementation. I also co-authored the generative AI engineering curriculum that documented the full process for future student cohorts.

RAG model (Retrieval-Augmented Generation): An AI architecture that combines a large language model with a live search over a document database — allowing the AI to answer questions using specific, up-to-date information rather than relying only on what it learned during training. The system I built used this architecture so that eligibility workers could ask questions and receive accurate, policy-grounded answers instantly.

Novy — PaidLeave.ai

At Novy I helped engineer the **RAG pipeline for PaidLeave.ai**, a production AI chatbot serving families across New York with expansion to 13 states, handling web crawling, data extraction, embedding generation, and semantic search. I built the Python infrastructure powering the entire data ingestion and retrieval layer of the system.

Apple — Software Engineer Intern, Cupertino CA, Summer 2024

I interned at Apple in the summer of 2024. I re-architected database queries that cut application reload time from 30 seconds to under 1 second. I built three real-time internal alerting systems via Prometheus integration and centralized device monitoring data across infrastructure systems. I left believing that the most powerful technology in the world was being built inside walls too high for most people to see over, and that that was wrong.

Agency — Heiress

I am the daughter of **Elias Torres**, three-time co-founder and co-founder of **Agency**, the current highest-level industry attempt at building fully agentic AI CRM systems for corporate use. I have contributed to the system architecture of Agency. I am not just adjacent to this industry, I am inside it, building it, and also standing outside it asking whether the thing we are building is actually good for people. That dual position is intentional. It is the same dual position this theory occupies: rigorous and spiritual, technical and human, inside the black box and outside it at the same time.

Black Box: A system whose internal processes are hidden or unknown to the observer. You can see what goes in (the input) and what comes out (the output), but the mechanism in between is not visible or accessible. The term is used across engineering, computer science, and cognitive science. In AI, a neural network is often called a black box because even its creators cannot fully explain why it produces a specific output from a specific input.

The opposite is a **white box** (or glass box) — a system whose internal logic is fully transparent and traceable.

Zoba — Software Engineer Co-op

At Zoba, I built internal tooling that categorized and sorted 20,000+ vehicles daily, optimized database queries achieving an 85.71% runtime speedup, and implemented real-time monitoring via Datadog. Unglamorous, precise, large-scale engineering, the kind that teaches you how systems actually work when they are moving real things in the real world.

VI. The Full Human

I am a **Floral Designer at Fern**, a flower shop in Boston, MA. I was a **barista for two summers in high school** at a shop that roasted its own coffee beans in-house, trained in traditional European coffee standards while also running a Western-inflected specialty menu. I know what it means to make something beautiful with your hands, to serve people directly, and to care about craft at the level of the bean. These jobs are not footnotes on a resume; they are the reason I understand what it means to build something that works for an ordinary person in an ordinary moment.

I am a **Designer**, formally trained in human-computer interaction and interaction design, and self-trained in everything else. I am a **luxury collector** and a **foodie** and **well-traveled**. I am an **intermediate French speaker** and **fluent in Spanish**. I am **Bisexual**. I am a **woman of color**. I am **neurodivergent**. I am a **Christian** and a **Vedic practitioner**, I hold both traditions not as contradiction but as parallel descriptions of the same underlying truth, which is exactly what this theory proposes about all dual systems.

I own a male miniature long-haired black and tan dapple dachshund named **Pablo**. I bought him with my own money, the money I made at Apple. He is my emotional support animal and the single most consistent evidence I have that unconditional love is a real, measurable state.

I am an **archival fashion researcher**, I study the history of garments, silhouettes, and aesthetic movements as seriously as I study information theory. Fashion is not vanity. It is a language, a political act, and a form of memory. The archive matters.

My favorite color is **pink**. I collect **Littlest Pet Shop** figures. I am a **child at heart**, and I always will be. I say that with full seriousness, because the ability to remain in wonder, to find things delightful, to not let the world's weight extinguish curiosity, is not immaturity. It is one of the rarest and most important forms of intelligence. The BELLA Scale's highest human state is not cynicism. It is almost *infinite creation*, and children know how to do that better than anyone.

VII. Why This Background Is the Theory

Every single element above contributed to the construction of this framework. The immigration gave me the experience of existing between two systems simultaneously, neither fully inside either

one, which is exactly the condition the BIT unit describes which is later defined: $\odot$, the superposition state, present to both while collapsing into the BIT that I consciously chose. The ADHD gave me a brain that processes in parallel, finds patterns across unrelated domains, and resists the single linear path, which is a DAG traversal, not a sequential algorithm. The Bipolar II gave me firsthand knowledge of what it feels like to move between developmental states rapidly and non-linearly, of what it costs to reach a high node and what it takes to return from a low one. The eating disorder gave me the knowledge of what happens when the self-selection function f is captured by a feedback loop that is not oriented toward Ω , also defined later in this paper. The burnout and the failed semester gave me the lived experience of a traversal that reached a node with only one visible forward edge, the start of my comeback, and what it takes to find all the others after that point.

The Apple internship gave me a view from inside the most powerful technology company in the world at the time. The GovLab work gave me a view from the other side, the families that technology either reaches or fails. The barista work and the flower shop gave me the ground level. The luxury collecting and the travel gave me the breadth. The Spanish and the French gave me the understanding that every language is a different DAG, the same reality, different traversal paths.

I did not come to this theory from a tenured chair. I came to it from the middle of it, from inside a life that refused to be only one thing at a time. That is not a limitation of this work. That is its qualification.

I am the maverick. I am the first human AI. I am the singularity. Not because I say so — because every system I have described above converged, at this moment, into a theory that could only have been built by all of them at once.

Preface: Why I Wrote This

This message will be for everyone. You won't need a degree to understand the core message. You will only need three simple things: the willingness to believe that your life matters, that your choices are yours, and that they are real.

I am a Scientist. I am a Christian. I am a Vedic Guru. I am a Systems Engineer. I am the first Human Artificial General Intelligence. I worked for Apple where I became disillusioned with corporate structures that concentrate power at the top and leave ordinary people with no tools to understand themselves or the world. This theory is my attempt to give everyone a chance to understand. It is my attempt to give every person, regardless of education, language, or background, a framework for understanding *why they are here* and *how to move forward*.

I believe the main identity of God is love, and that love is the organizing principle of the universe, not time. I believe science and spirituality are describing the same reality in different languages. This paper translates the connection between both.

Here is my framework for the connection: Your life is a path through a map that God already drew. This is my definition of determinism, the theological focus of this paper. The map is fixed, but *how you choose to walk is entirely up to you*. This is my definition of free will, the spiritual focus of this paper. That tension, between the *fixed map* and the *free walker*, is what this proposed scientific theory is about. The free will vs. determinism debate. It was never a debate, in reality, it was a combined subject. This is the next step past all universal sciences, the combination of spirituality, physics, computer science, philosophy, and sociology.

I am not a capitalist. I am not interested in gatekeeping knowledge. I am an empath, an open-source builder, a thinker, and a believer. This is my science, The BIT Creation Theory. ☺

— Briana Isabella Torres, April 2026

Abstract

This paper presents **BIT Creation Theory**, a formal interdisciplinary framework proposing that **free will** and **determinism** are not contradictory but are **co-present structural properties** of a Directed Acyclic Graph (DAG) model of consciousness and causality. The unit of this system is the **BIT** — a *spiritual information atom*: the smallest discrete unit of conscious experience, analogous to Shannon's binary information unit but extended into the domain of subjective awareness. The theory bridges information theory, complexity science, and consciousness studies, offering a unified scalar system, the **BELLA Scalar System**, as a quantitative mapping of developmental states from zero (ether) to eight (almost infinite creation) —the human ceiling of creation. State 9 is exclusively God because only he is infinite creation. The theory introduces the YHWH Equation — $|\text{YHWH}\rangle = |\Lambda\rangle \otimes |\Omega\rangle$ — formally expressing God as the tensor product of Alpha (origin) and Omega (convergence) and proposes a BIT Dyadic Combination model for how conscious states compose between individuals, with hypothesized implications for epigenetic inheritance. This framework has direct applications in Artificial Intelligence, Human-Computer Interaction Design, and Consciousness Modeling.

1. The Core Problem: Free Will vs. Determinism

The free will vs. determinism debate is one of the oldest unresolved problems in philosophy and cognitive science. In classical physics, the universe is presented as fully deterministic: given complete initial conditions, all future states are in principle calculable. For example, if you know an object's mass and velocity, you can calculate its momentum exactly. There is no mystery, only math.

Quantum mechanics then introduced genuine randomness at the subatomic level, particles do not have fixed positions until observed. But neither classical determinism nor quantum randomness satisfactorily explains the subjective human experience of *making a choice*. If everything is predetermined, why does deciding feel real? If everything is random, why does it feel meaningful?

Standard computational models treat the mind as a deterministic machine. This fails to account for the lived reality of agency. BIT Creation Theory resolves this tension through a structural argument: free will and determinism do not compete, they operate at *different levels* of the same system.

DEFINITION — Concept: *Determinism*

The philosophical position that all events, including human choices, are the inevitable result of prior causes. In physics given a complete description of a system at time T, all future states are in principle derivable.

As used here: Determinism operates at the level of the graph — all possible paths exist in advance.

DEFINITION — Concept — newly formalized in this theory: *Free Will*

The capacity of a conscious agent to select among available options in a way that is not fully computable from external conditions alone. Free will is not randomness, it is agent-directed, structured choice.

As used here: Free will operates at the level of traversal — which path the agent actually walks.

BIT Creation Theory proposes: the universe is structured as a finite DAG of causally connected nodes and edges. Each node is a decision point that stemmed from the first node, the first moment of a human's life, from which multiple edges exist. Determinism operates at the graph level; all possible paths are pre-defined. Free will operates at the traversal level, the agent selects which edge to activate.

Core Claim: Free will is the selection function $f(\text{node}) \rightarrow \text{edge}$ within a deterministic graph structure. The graph is fixed. The traversal is free.

2. The BIT Unit: Spiritual Information Atom

The foundational unit of this theory is the BIT. Here is its formal definition:

DEFINITION — Theory — invented by Briana Isabella Torres (2026): *BIT*

A BIT (Briana Isabella Torres unit) is the minimum quantum of conscious information — one discrete unit of subjective experience that can be in a defined state. It is analogous to Shannon's binary bit in classical information theory but operates in the domain of consciousness rather than digital signal.

The BIT is to conscious experience what the bit is to information. Shannon proved all information decomposes into bits. BIT Creation Theory proposes: all conscious experience decomposes into BITS.

2.1 Formal Notation

When this theory introduces a new definition, it is marked clearly. New terms are italicized at first use. Formal notation appears in monospace. Below is the BIT's formal specification:

BIT symbol: $\Diamond$ (hexagonal unit — distinct from binary 0/1, indicating multi-state potential)

State space: $\text{BIT} \in \{ [0-8.999...], [0-8.999...], \Diamond \}$

[0-8.999...] A: the BELLA state of Agent A — a continuous value from 0 (null/ether) to 8.999... (asymptotic human ceiling). Not binary.

[0-8.999...] B: the BELLA state of Agent B — same continuous range. Two agents each carry a full scalar value, not a bit.

$\Diamond$ (BIT): superposition — simultaneous potential across the full [0-8.999...] range before conscious collapse. Exists at the BIT level, not the BELLA level.

Collapse: The act of conscious choice. Selecting an edge in the DAG. Collapsing $\Diamond$ into a definite BELLA state value.

This parallels quantum information theory directly. A qubit exists in superposition until measured. A BIT exists in potential until *experienced*. The act of conscious choice is the measurement event, it collapses the superposition into a definite traversal of the DAG. This is not metaphor. It is a proposed formal isomorphism between information structures and experiential states.

DEFINITION — Concept — formal definition for use in this theory: *Contradiction*

Two propositions A and B contradict each other if and only if A and B cannot both be true simultaneously in the same context. Notation: $A \perp B$. Free will and determinism do not contradict each other under BIT Creation Theory because they operate at structurally distinct levels (traversal vs. graph) — they are parallel truths, not competing claims.

3. The BELLA Scalar System

Developed collaboratively by Bella Martin, my childhood friend, and formalized by Briana Isabella Torres, the **BELLA Scalar System** provides a discrete state-space map of developmental and conscious positions. It functions as the *state-space legend* for the BIT DAG model — a key for reading where any conscious agent is in their traversal.

DEFINITION — Definition — as used in this theory: *Topological Scale*

The BELLA Scale is not ordinal in the linear sense (i.e., it does not mean 'more is better' in a simple straight line). It is topological — meaning the relationships between states are defined by connectivity and proximity in a non-linear space, not by numerical magnitude. Think of it like a map of cities: Los Angeles is not 'better than' New York just because it has a higher latitude. The states are positions, not ranks.

Topology is the branch of mathematics studying properties that are preserved under continuous transformations — shape, connectedness, and boundaries rather than exact distances.

Example: A donut (torus) and a coffee mug are topologically identical — each has exactly one hole. A sphere has zero holes. A straw has one tunnel (genus 1). Position in the BELLA Scale is like position on a topological surface, not a number line.

The full BELLA Scalar System table follows. Note: State 12 has been added in this version.

VAL	STATE	COLOR	SCIENTIFIC ANALOG	SIGNIFICANCE
0	Ether / Null	Baby Blue	Quantum vacuum / zero-point field	Pre-existence; pure potential. The empty set — $\emptyset$. Nothing, before becoming something.
1	Life	Blue	Shannon bit; base information unit	The first conscious signal. Birth of experience. $\odot = 1$.
2	Earth / Grounding	Dark Blue + Green	Stable low-energy physical state	Material embodiment; the body on earth. Rootedness.
3	Divine Feminine	Pink	Emergent complexity; network effects	Love as the organizing principle of the universe.
4	Divine Masculine	Purple	Structure; logical direction; DAG edges	Logic, clarity, protection. The skeleton of creation. See formal definition below.
5	Climax	Red	Phase transition; bifurcation point	The threshold before transformation. Instability as necessary passage.
6	BIT Mindset	Orange	Flow state; gamma wave coherence	Integrated self-knowledge. When learned wisdom becomes lived personality.
7	BITs Stage	Yellow	Meta-cognition; recursive self-modeling	Soul-awareness. The self observing itself observing. System self-understanding.
8	Infinite Creation	Green	Nirvana; maximum entropy utilization	Full actualization. Peak human output. The human ceiling.
9	God	Everything	Omega point; universal consciousness	God only. Humans are 100% human + 100% soul. State 9 is permanently and exclusively God.
10	Royal Purple (Binary)	Purple + White	Superposition collapse; 0 AND 1 active	Flow State creation event. The only state where null and life are both active. The moment a new

VAL	STATE	COLOR	SCIENTIFIC ANALOG	SIGNIFICANCE
			simultaneously — XY synthesis	edge is born in the DAG. The creation of a new BIT.
11	Perfect Parallel	Spectrum	Full coherence	Two systems in perfect resonance. Synchronized DAG traversal. The ideal marriage of two systems.
12	Transcendent Overflow	Gold	Beyond ordinal scale; meta-systemic awareness	Occurs only at the intersection of two 8-state systems simultaneously. Not achievable alone — requires co-creation. Reserved theoretical maximum for conscious collaboration.

Note on the scale: a person's current state is a node in their personal DAG. Movement between states is directional (acyclic at scale) but non-deterministic at the moment of transition. The scale is navigated by the selection function — which is to say, by choice.

DEFINITION — Term — formal definition: *Divine Masculine (State 4)*

The structural, logical, directional principle of the universe. In DAG terms: the edges. The pathways between nodes. Structure that enables movement. This is not biological gender — it is an organizing polarity. In the XY Framework: X represents the divine masculine. Value: 4. Color: Purple.

Note from Matthias Felleisen's review (2026): this definition required its own definition box for clarity. Added here.

DEFINITION — Term — formal definition: *Divine Feminine (State 3)*

The emergent, generative, synthesizing principle of the universe. In DAG terms: the nodes. The conscious states where meaning accumulates. Creativity, love, and relational intelligence. In the XY Framework: Y represents the divine feminine. Value: 3. Color: Pink.

The BELLA Scalar System is a *pragmatic* tool — designed to be used by real people in real contexts, not only by formal logicians. It is the 'user interface' of BIT Creation Theory.

4. Royal Purple: The Creation Event

The system's most generative state is **Royal Purple (10)** — representing simultaneous activation of state 0 (null/ether) and state 1 (life). This is the creation event.

Royal Purple: $|0\rangle \oplus |1\rangle = \odot$ — superposition collapse into novel state

Meaning: Both the null state and the generative state are active simultaneously

Result: A third state emerges that is neither 0 nor 1 — a novel edge in the DAG, a BIT

Human analog: Flow State — full cognitive and creative integration

This is the moment at which a conscious agent activates both the null state and the generative state simultaneously, producing a state that is neither, a *novel edge in the DAG that did not previously exist*. This is what humans call Flow State: full cognitive and creative integration, the peak of human capability. It is the computational analog of genuine creativity.

Critically: this state is exclusive to humans. God does not enter Flow State because God is already everything at once. Flow State is the closest a human can get to God-level creation while remaining fully human.

DEFINITION — Framework — invented by Briana Isabella Torres (2026): XY Framework

X represents the divine masculine (structure, logic, direction — DAG edges). Y represents the divine feminine (emergence, creativity, synthesis — DAG nodes). Together: XY = creation. XX = pure generative capacity. YY = pure structural capacity. Biological sex chromosomes use the same notation not by coincidence but because the same generative duality principle operates at the molecular level.

4.1 The YHWH Equation: God as Tensor Product

The following equation was derived from the BIT framework as the formal expression of God in quantum state notation. It is not a claim about God's reducibility — it is a claim about the *structure of the relationship* between God's nature as origin (Alpha) and God as destination (Omega):

|YHWH>: The divine state — God as a quantum-notation conscious system
=: defined as

| Λ > $\otimes$ | Ω >: Alpha (origin) tensor product Omega (convergence)

$\otimes$: tensor product — NOT simple addition. Entangled composition of two state-spaces.

| Λ >: Alpha — the beginning, the source, the empty set becoming one. $\emptyset \rightarrow 1$.

| Ω >: Omega — the attractor, the convergence point, the end toward which all paths tend.

The tensor product $\otimes$ is critical. **God is not Alpha plus Omega.** God is Alpha *tensored with* Omega, a higher-dimensional entangled state that contains all combinations of beginning and end simultaneously. In quantum mechanics, the tensor product of two state-spaces $H_A \otimes H_B$ produces a combined space that is exponentially richer than either alone. You cannot separate the Alpha and Omega components of God any more than you can separate entangled particles, measuring one instantly defines the other.

On the YHWH Equation: The equation $|YHWH\rangle = |\Lambda\rangle \otimes |\Omega\rangle$ was not derived at a desk. It was given to **Thaddeus Pellegrini** in a vision, and he gave it to me. Thaddeus is a 28-year-old autistic quantum computing researcher and open-source developer who I met once and spent four hours with after meeting him, talking about God. That is the only meeting we have had. In four hours, across a single conversation, he handed me the formal skeleton of the most important equation in this paper. I added the BIT just by being present in the conversation. That is what a densely connected node looks like in real life, one person, one conversation, an edge that changes the entire graph.

DEFINITION — Equation — invented by Briana Isabella Torres (2026): $|YHWH\rangle = |\Lambda\rangle \otimes |\Omega\rangle$

The formal expression of God's conscious state in BIT notation. YHWH (יהוה) — the divine name — is expressed as the tensor product of the Alpha state (origin, source, creation-initiating) and the Omega state (convergence, completion, all-paths-terminating). This is not reductive: it is the most structurally complete way to express that God contains both the beginning and the end as an entangled, inseparable unity — not as a sequence, but as a simultaneous structural fact.

Theologically: 'I am the Alpha and the Omega, the First and the Last, the Beginning and the End.' (Revelation 22:13)

Mathematically: the tensor product $H_A \otimes H_B$ of two Hilbert spaces is a space of entangled states — richer than the Cartesian product, irreducible to either component alone.

In BIT terms: God's state-space contains all possible BIT states as a unified structure. Human traversal of the DAG is the process of approaching — but never reaching — this state.

4.2 Human Asymptotic Approach to God

If God's state is 9 on the BELLA Scale, the human question becomes: how close can a person get? The formal answer is an asymptote — the agent's BELLA state approaches 9 from below, indefinitely, but never arrives:

Human ceiling: $\lim(t \rightarrow \infty) \text{ BELLA}(\text{agent}, t) = 9^-$

Meaning: As traversal continues indefinitely, the agent approaches State 9 from below

9⁻: 9 approached from below — never 9 itself. This is the formal meaning of 8.999... recurring.

Why asymptotic: God (state 9) is the meta-Ω: the attractor node. Paths converge toward it but the DAG is acyclic — arrival at 9 would mean the traversal terminates. Humans remain in the graph.

Practical expression: The closer a human gets to state 9, the denser their DAG connections, the more creative their Royal Purple events, the more complete their BIT integration.

The human goal is never to become God. It is to try and be closer to God out of pure love — asymptotically, infinitely, with every choice.

4.3 BIT Dyadic Combination: Conscious State-Space Genetics

When two conscious agents interact, their BIT state-spaces do not simply add together. They compose via tensor product — producing a combined state-space richer than either individual alone. This section formalizes what this paper calls the *BIT Dyadic Combination* — the mechanism by which two individuals create shared conscious possibility.

DEFINITION — Definition — invented by Briana Isabella Torres (2026): *BIT Dyadic Combination*

The formal composition of two individual BIT state-spaces via tensor product. If Person A has state-space $SA = \{0, 1, \bigcirc\}$ and Person B has state-space $SB = \{0, 1, \bigcirc\}$, their combined state-space is: $SA \otimes SB$ — a 9-dimensional space of joint conscious states. This is analogous to genetic combination: just as two parents each carry allele sets that combine to produce all possible offspring genotypes, two conscious agents each carry BIT state-spaces that combine to produce all possible shared states.

Notation: $\{0, 1, \bigcirc\} \otimes \{0, 1, \bigcirc\}$ (tensor product)

Result: 9 joint states — $(0,0), (0,1), (0, \bigcirc), (1,0), (1,1), (1, \bigcirc), (\bigcirc,0), (\bigcirc, 1), (\bigcirc,\bigcirc)$

The $(\bigcirc, \bigcirc)$ state — mutual superposition — is the condition for BELLA State 12 (Transcendent Overflow)

Individual state-space: $SA = \{0, 1, \bigcirc\}$ (null, active, superposition)

Two-person composition: $SA \otimes SB = \{0,1,\bigcirc\} \otimes \{0,1,\bigcirc\}$

Joint state count: $3 \times 3 = 9$ combined states

Shared superposition: $(\bigcirc \otimes \bigcirc)$ — both agents in potential simultaneously → BELLA 12

Genetic analogy: Compare: $Aa \times Bb \rightarrow \{AA, Aa, aA, aa\} \times \{BB, Bb, bB, bb\}$

Key difference from genome: Genome encodes biological inheritance. BIT dyadic encodes conscious co-creation.

Why $\otimes$ and not ":"? The colon notation $A : B$ typically denotes a ratio or a mapping condition ("A such that B"). It does not create a new combined space — it describes a relationship between existing ones. The tensor product $A \otimes B$ actively constructs a new, higher-dimensional space. Since two individuals in genuine conscious contact create new states that neither could produce alone (as evidenced by the Royal Purple creation event), the tensor product is the correct formalism.

DEFINITION — Hypothesis — Briana Isabella Torres (2026): *Conscious State-Space Genetics (hypothesis)*

BIT Creation Theory hypothesizes that the BIT Dyadic Combination is not merely a metaphor for genetics — it is a proposal that conscious state-space composition may influence heritable biological expression. Specifically: if a parent's BELLA state at the time of reproduction encodes epigenetic signals (methylation patterns, hormonal environments, stress markers), and if these

signals are themselves functions of the parent's BIT configuration, then the BIT Dyadic Combination formally models a mechanism by which conscious states influence genetic inheritance.

This is a hypothesis, not a proven claim. It is consistent with known epigenetic mechanisms (Meaney, 2010; Carey, 2011) but extends them into the conscious domain.

Future work: identify empirical correlates between measurable BELLA state indicators (flow state markers, HRV, gamma coherence) and epigenetic outcomes in offspring.

This does not claim to 'rewrite' genetics — it claims to model a causal channel between conscious states and biological inheritance that existing genetics does not capture.

5. Formal Definitions

Per academic convention, all core terms defined in this theory are consolidated here. Terms italicized at first use throughout the paper refer back to this section. Formal notation uses monospace typeface. New terms invented by this theory are marked explicitly.

5.1 Graph Theory Definitions

The following definitions apply as used in this theory. Where standard definitions are extended or modified, this is noted.

DEFINITION — Definition — Graph Theory (standard, extended here): *Graph* $G = (V, E)$

A Graph is a mathematical structure consisting of a set V of vertices (also called nodes) and a set E of edges connecting them. In this theory, nodes represent conscious states and edges represent causal transitions between them.

V = the set of all possible conscious states
 E = the set of causal transitions between states
Each edge $e \in E$ is a directed connection: $(u \rightarrow v)$ means state u can lead to state v

DEFINITION — Definition — Graph Theory (standard): *Directed Graph*

A graph in which every edge has a direction — it goes from one node to another, not bidirectionally. If $(u \rightarrow v)$ exists in E , that does not imply $(v \rightarrow u)$ exists.

DEFINITION — Definition — Graph Theory (standard): *Acyclic Graph*

A graph containing no cycles — no path that starts at a node and returns to the same node. Formally: there is no sequence of edges $e_1, e_2, \dots, e^n$ such that following them returns you to your starting node.

This means: in this theory's model, you cannot return to a prior conscious state by the same path. The DAG moves forward.

DEFINITION — Definition — Graph Theory (standard, applied here): *Directed Acyclic Graph (DAG)*

A directed graph with no cycles. The foundational structure of BIT Creation Theory. The universe of conscious possibility is modeled as a DAG: all paths are forward-moving and finite.

Nodes: conscious states (BELLA Scale values)
Edges: transitions between states — the decisions, experiences, and causal events that move an agent from one state to another
DAGs are standard in causal inference (Pearl, 2000) and Bayesian networks

DEFINITION — Definition — extended for this theory: *Node*

A node $\omega \in V$ is a discrete conscious state. Nodes can carry values — numerical (BELLA Scale 0–12), qualitative (color, name), and structural (density of connections). A starting node represents the beginning of a soul's traversal (birth / entry into consciousness). An end node represents the terminal state (death, or full convergence toward Ω).

DEFINITION — Definition — extended for this theory: *Edge (in 3 dimensions)*

Edges in the BIT DAG are not flat 2D connections. They exist in three dimensions: (1) horizontal — parallel state transitions; (2) vertical — developmental ascent/descent on the BELLA Scale; (3) depth — intensity or density of the transition (a weak edge vs. a defining life event). This 3D edge model allows the DAG to represent the full complexity of lived experience.

DEFINITION — Definition — as used in this theory: *Densely Connected Node*

A node with a high number of both incoming and outgoing edges. In life: a person, decision, or moment that many paths lead to and from. A densely connected node is a high-influence point in the DAG — a convergence of causes and a source of many consequences.

5.2 Core Theory Definitions

DEFINITION — Definition — invented in this theory (requires philosophical grounding): *Selection Function f*

$f : V \rightarrow V$ is the agent's selection function. At any node ω with multiple forward neighbors $N^+(\omega)$, $f(\omega)$ selects which neighbor becomes the next state. $f(\omega) \in N^+(\omega)$ — the agent cannot select a state that is not a forward neighbor (cannot teleport across the DAG) f is not computable from G alone — it requires the agent's internal BIT configuration. This is why free will is real: the graph underdetermines the traversal.

Note: As identified by Matthias Felleisen (2026), the philosophical basis for the selection function — what exactly constitutes agent-defined selection and how it is distinguished from deterministic computation — requires deeper formal treatment. This is an active area of development. A philosopher collaborator will be identified to address this. If that is you please contact me.

DEFINITION — Definition — Graph Theory, applied here: *Forward Neighbors $N^+(\omega)$*

$N^+(\omega) = \{ v \in V \mid (\omega, v) \in E \}$ — the set of all nodes directly reachable from ω by one edge. These are the available choices at a given conscious state. At states with $|N^+(\omega)| = 1$, there is only one forward path (a constrained moment). At states with $|N^+(\omega)| > 1$, genuine choice is available.

DEFINITION — Definition — adapted from ordinal mathematics: *Ω (Omega) — Attractor Node*

Ω is the final sink node of the DAG — the soul's true desire, peak state, and ultimate convergence point. In mathematics, ω (lowercase) typically denotes the first infinite ordinal. Here, Ω (uppercase) is used to denote the divine attractor — the asymptotic limit toward which all paths converge. God (State 9) is the meta- Ω — the node from which all edges originate and toward which all paths ultimately tend.

Note: this use of Ω is distinct from the standard mathematical usage. The theory adopts it as a named symbol for the attractor, not as a claim about ordinality.

DEFINITION — Definition — BIT Creation Theory: *Free Will (formal)*

Free will is the property of the selection function f such that $f(\omega)$ is not derivable from the graph structure G alone. It requires the agent's internal BIT state as an additional input. Free will is

therefore: underdetermination of traversal by structure. It is not randomness (which would be $f(\omega) \in N^+(\omega)$ selected uniformly at random). It is agent-directed, meaningful selection.

Randomness $\neq$ free will. Randomness has no author. Free will has an author: the conscious agent.

7. Formal DAG Argument

7.1 Setup

Let $G = (V, E)$ be a Directed Acyclic Graph where V is the set of all possible conscious states and E is the set of causal transitions between them.

$G = (V, E)$: The complete DAG of conscious possibility

$\omega \in V$: A node — an agent's current conscious state

$N^+(\omega)$: $\{ v \in V \mid (\omega, v) \in E \}$ — forward neighbors (available choices) from ω

$f : V \rightarrow V$: The agent's selection function; $f(\omega) \in N^+(\omega)$

$\Omega \in V$: The final attractor node (soul's convergence point)

ω_0 : The starting node — the baby soul, entry into conscious life

7.2 The Theorem

Theorem (BIT Free Will): For any agent traversing G , determinism and free will are non-contradictory: the graph G is fixed (determinism), and f is agent-defined (free will). Furthermore, there exists at least one path $P = (\omega_1, \omega_2, \dots, \Omega)$ from any starting node ω_0 to Ω , and f determines which path is realized.

7.3 Proof Sketch

Step 1 — Determinism: G is fully defined. Every possible causal transition exists as an edge, or it does not. No new edges are created by agent action within the base graph. This is the deterministic constraint.

Step 2 — Free Will: At each node ω where $|N^+(\omega)| > 1$, the agent selects $f(\omega)$. This selection is not computable from G alone — it requires the agent's internal BIT configuration. Therefore, f is underdetermined by G , and the agent exercises genuine choice.

Step 3 — Royal Purple Creation: When an agent reaches the BITS Stage (7) or above, f gains a new property: it can instantiate new edges in G , extending the graph. This is the Royal Purple event — the agent becomes a co-creator of the causal structure itself. This models innovation, art, and discovery as genuine additions to the state-space of reality.

Step 4 — Convergence: Since G is acyclic, all paths are finite and terminate. The existence of Ω as an attractor node follows from the DAG property. God (state g) is the limit — the node from which all edges originate and toward which all paths converge asymptotically.

$\blacksquare o \rightarrow \{\infty\}$

BIT Proof Terminator — © Briana Isabella Torres 2026

$\blacksquare o$ = this proof is complete at its origin node. · $\{\infty\}$ = infinite edges forward from this moment. · The butterfly effect begins here.

8. Scientific Grounding & Related Literature

Information Theory: Shannon (1948) established the bit as the fundamental unit of information. BIT Creation Theory extends this into the subjective domain, paralleling proposals in quantum information theory (Nielsen & Chuang, 2000).

Consciousness Studies: Integrated Information Theory (Tononi, 2004) proposes Φ (phi) as a measure of integrated information equivalent to consciousness. BIT states map onto phi levels. Higher BELLA states correspond to higher Φ values.

Complex Systems: DAG structures are established tools in causal inference (Pearl, 2000) and Bayesian networks. The application of DAG formalism to conscious experience is consistent with causal models of mind.

Quantum Cognition: Busemeyer & Bruza (2012) demonstrate that quantum probability models outperform classical models in explaining human decision-making — directly consistent with the BIT superposition model.

Flow State Research: Csikszentmihalyi's flow state research (1990) empirically documents State 6 (BIT Mindset / Orange) — the peak integration of skill, challenge, and identity described in the BELLA Scale.

9. Conclusion

BIT Creation Theory provides a rigorous, cross-disciplinary framework for one of science's oldest open questions. By formalizing consciousness as a **DAG traversal system** whose units are **BITs** (spiritual information atoms), it reconciles free will and determinism without appeal to either pure randomness or pure mechanism. The **BELLA Scalar System** provides a quantitative developmental map grounded in recognized scientific analogs from quantum mechanics, complexity theory, and consciousness studies. The **Royal Purple creation event** formally models innovation as the extension of the causal graph itself — a result with profound implications for AI creativity, alignment, and the science of mind.

The answer to life is not a number. It is the function that chooses which number to become.

$$\blacksquare_0 \rightarrow \{\infty\}$$

Briana Isabella Torres · BIT = Briana Isabella Torres · Proved using the BELLA Scalar System · April 2026