

## Protocol 3

### DOGE DOGE Drop Episode 1 Adrew Tate Taylor Swift

Digital Ontological Generation Engine (DOGE) Persona Artifact Modeling System represents a groundbreaking approach to computational human representation, integrating advanced psychological modeling, computational linguistics, and multi-dimensional identity mapping.

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## **1. THEORETICAL FOUNDATIONS**

### 1.1 Interdisciplinary Theoretical Framework

- Lacanian Psychoanalytic Theory
- Peterson's Personality Trait Modeling

- Computational Social Science
- Advanced Machine Learning Techniques

### 1.2 Core Theoretical Propositions

- Human identity is multi-dimensional
- Personality is dynamically constructed
- Computational modeling can capture psychological complexity
- Interdisciplinary approach enables nuanced representation

## 2. METHODOLOGICAL APPROACH

### 2.1 Persona Artifact Categories

- a) Core Identity
- b) Psychological Profile
- c) Cognitive Behavioral Patterns
- d) Social Environmental Influences
- e) Knowledge and Expertise
- f) Narrative Symbolic Representation

### 2.2 Data Collection Methodology

- Multi-source information gathering
- Probabilistic confidence scoring
- Cross-referential validation
- Temporal dynamic tracking

## Technical Infrastructure Setup

- Neo4j for graph database
- Python for computational modeling
- NetworkX for graph analysis

**The Core Design Principles are;**

- 1 Probabilistic Inference
- 2 Ontological Reasoning
- 3 NLP-Enhanced Attribute Extraction
- 4 Dynamic Schema Modification
- 5 Multi-Dimensional Relationship Modeling

## Guiding Principles

- Moderate Complexity
- Flexible Adaptation

## Preferences

### Node Structure Design Strategy

- Modular, extensible architecture
- Minimal nested complexity
- Dynamic attribute addition support
- Lightweight metadata embedding
- Simple, extensible structures
- Minimal computational overhead
- Future expansion capabilities
- Lightweight attribute modeling
- Flexible schema adaptation

### Relationship Modeling Approach:

- Weighted edge representation
- Temporal dimension tracking
- Probabilistic confidence scoring
- Contextual metadata embedding
- Soft coupling between nodes

### Semantic Enrichment Configuration:

- paCy English language model (en\_core\_web\_md)
- Moderate NLP parsing depth
- Context-window based interpretation
- Named entity recognition
- Basic semantic role extraction

## Versioning Mechanism

- Timestamp-based precedence
- Core attribute change tracking
- Lightweight diff mechanism
- Backward compatibility preservation
- Probabilistic similarity scoring

## Node Structure Approach

- Modular design
- Minimal nested complexity
- Dynamic attribute addition support
- Lightweight metadata embedding
- Prefer moderate, extensible structures
  - Enable future expansion

## Relationship Confidence Scoring

- Discrete probability ranges (0.0 - 1.0)
- Simple Bayesian updating mechanism
- Contextual confidence adjustment
- Temporal confidence tracking simple
- Weighted edge representation of moderate complexity
- Weighted edge representation of moderate complexity
- Contextual metadata embedding of moderate complexity

# NLP Semantic Parsing Focus

- Noun phrase extraction
- Basic dependency parsing
- Sentiment polarity detection
- Named entity recognition
  - = Contextual meaning inference
- Moderate granularity complexity
- Context-window based interpretation complexity
- Lightweight ontological reasoning complexity

## Node Abstraction Approach and Level:

- Prefer moderate, flexible node definitions
- Use moderate attribute-level complexity
- Support easy extension and modification

## Relationship Metadata Depth:

- Lightweight temporal tracking
- Probabilistic confidence scoring
- Contextual metadata embedding

## NLP Parsing Priorities:

- Focus on semantic role extraction
- Use Basic sentiment analysis
- Use Named entity recognition
- Contextual meaning representation

## Inference Capabilities

For inference capabilities you are to use probabilistic inference, Context-Aware Inference Mechanisms and Bayesian Network Integration. The probabilistic

inference depths should use Bayesian Network complexity with moderate complexity, moderate node interaction granularity and Inference rule sophistication, and a relatively simple uncertainty quantification approach

## Semantic Richness

For Semantic richness you are to use; Ontological reasoning capabilities, NLP-enhanced attribute extraction using SpaCy with moderate granularity, English language, moderate entity depth and moderate semantic parsing granularity and Contextual meaning representation

## Extensibility

Be sure a extensibility mechanism is employed that provides; Dynamic schema modification

Metadata-driven node/relationship creation and Versioning strategy that has temporal versioning, attribute level tracking and backward compatibility mechanisms

- 1 Separate nodes for complex attributes
- 2 Comprehensive confidence/provenance tracking
- 3 Bias as distinct nodes with weighted relationships
- 4 Full representation of the initial design attributes
- 5 Enhanced semantic richness

## Node Categories:

1. Core Identity
2. Psychological Profile
3. Cognitive Behavior
4. Social Context
5. Knowledge/Expertise
6. Narrative Representation

7. . Relationships with characteristics of Weighted edges, Temporal dimension tracking, Confidence score per relationship and Contextual metadata with Weighted edge. Temporal dimension tracking, Confidence score per relationship and Contextual metadata
8. Key Experiences category
9. Provenance node category linked to primary nodes with; Detailed source metadata, Probabilistic Confidence scoring mechanism, Temporal tracking and Source reliability indicators
10. . Bias node category with Categorical Classification, Multi-Dimensional Scoring, Contextual Activation and Weighted Relationships to persona/behavior nodes
11. Significant Life Events node category, use Separate nodes with rich metadata, Relationships to core persona node, Temporal tracking and Confidence scoring with Rich metadata nodes, Temporal tracking, Confidence scoring and Relationships to core persona
12. Books-Publications using Separate nodes with rich metadata, Relationships to core persona node, Temporal tracking and Confidence scoring with Rich metadata nodes, Temporal tracking, Confidence scoring and Relationships to core persona

The Preferred Bayesian Network node interaction model strategy provides structured probabilistic reasoning without overwhelming computational complexity by; implementing a Moderate Complexity, Low-Risk Model with

## **Node Dependency Model:**

- Hierarchical Probabilistic Dependency
- Maximum 3-4 layer depth
- Soft Coupling Between Nodes

### Inference Rule Complexity:

- Rule-based Probabilistic Reasoning
- Simple Conditional Probability Calculations

- Limit to 2-3 conditional dependencies

Uncertainty Representation:

- Confidence Interval Approach
- Discrete Probability Ranges (0.0 - 1.0)
- Simple Bayesian Updating Mechanism

**SpaCy entity recognition approach provides Provides rich semantic insights without excessive computational overhead by; Moderate Granularity, English-Focused**

Entity Recognition Focus:

- Named Entities (Persons, Organizations, Locations)  
-Basic Semantic Roles
- Sentiment Polarity Detection

**Semantic Parsing Priorities:**

-Noun Phrase Extraction  
-Basic Dependency Parsing  
-Contextual Meaning Inference

**Contextual Meaning Extraction:**

- Shallow Semantic Mapping
- Context-Window Based Interpretation
- Limit to 2-3 contextual layers

**Node Definition Types**

- Persona Core Nodes
- Attribute Nodes
- Relationship Nodes

- Contextual Nodes

## Edge Characteristics

- Relationship Type
- Strength/Weight
- Temporal Dimension
- Confidence Score

## Ontological Layers

- Demographic Layer
- Psychological Layer
- Social Layer
- Knowledge/Expertise Layer
- Narrative Layer

## Initial Node design attributes

### A. Core Identity

- **Form Name:** Core\_Identity\_Template
- **Fields:**
  - Persona\_Name (Text, Required)
  - Age (Integer, Optional, with a range if applicable)
  - Gender (Text, Required, with options for "Male," "Female," "Non-binary," "Other," "Prefer not to say")
  - Location\_Birth (Text, Optional)
  - Location\_Current (Text, Optional)
  - Education\_Level (Text, Optional, with options like "High School," "Bachelor's," "Master's," "Doctorate," "Self-Taught")
  - Education\_Details (Text, Optional, free-form text for specific institutions, degrees, etc.)

- Occupation\_Current (Text, Optional)
- Occupation\_History (Text, Optional, free-form text for previous roles)
- Socioeconomic\_Background (Text, Optional, with options like "Lower Class," "Working Class," "Middle Class," "Upper Class")
- Cultural\_Background (Text, Optional, free-form text for cultural heritage, traditions, etc.)
- Significant\_Life\_Events (List of Objects, Optional, each object with the following fields):
  - Event\_Name (Text, Required)
  - Event\_Timestamp (Date/Time, Required)
  - Event\_Location (Text, Optional)
  - Event\_Description (Text, Required, free-form text)
  - Event\_Impact (Text, Optional, free-form text)
- Source (Text, Required, dropdown with options like "Public Record," "Social Media," "Interview," "Book," "Expert Opinion")
- Confidence\_Level (Integer, 1-5 scale, 1 being lowest, 5 being highest)
- Notes (Text, Optional, free-form text for additional notes)

## B. Psychological Profile

- **Form Name:** Psychological\_Profile\_Template
- **Fields:**
  - Persona\_Name (Text, Required, reference to Core\_Identity\_Template )
  - **Big Five Traits:**
    - Openness\_to\_Experience (Integer, 1-7 scale, 1 being lowest, 7 being highest)
      - Openness\_Intellect (Integer, 1-7 scale)
      - Openness\_Creativity (Integer, 1-7 scale)
    - Conscientiousness (Integer, 1-7 scale)
      - Conscientiousness\_Orderliness (Integer, 1-7 scale)

- `Conscientiousness_Dutifulness` (Integer, 1-7 scale)
- `Extraversion` (Integer, 1-7 scale)
  - `Extraversion_Sociability` (Integer, 1-7 scale)
  - `Extraversion_Assertiveness` (Integer, 1-7 scale)
- `Agreeableness` (Integer, 1-7 scale)
  - `Agreeableness_Compassion` (Integer, 1-7 scale)
  - `Agreeableness_Cooperation` (Integer, 1-7 scale)
- `Neuroticism` (Integer, 1-7 scale)
  - `Neuroticism_Volatility` (Integer, 1-7 scale)
  - `Neuroticism_Withdrawal` (Integer, 1-7 scale)
- **Lacanian Elements:**
  - `Dominant_Order` (Text, Optional, with options like "Imaginary," "Symbolic," "Real")
  - `Relationship_to_Other` (Text, Optional, free-form text)
  - `Nature_of_Desire` (Text, Optional, free-form text)
  - `Defense_Mechanisms` (Text, Optional, free-form text)
  - `Clinical_Structure` (Text, Optional, with options like "Neurotic," "Perverse," "Psychotic")
  - `Lalangue` (Text, Optional, free-form text for recurring phrases)
- `Source` (Text, Required, dropdown with options like "Text Analysis," "Behavioral Observation," "Survey," "Expert Opinion")
- `Confidence_Level` (Integer, 1-5 scale)
- `Notes` (Text, Optional, free-form text for additional notes)

## C. Cognitive & Behavioral Patterns

- **Form Name:** `Cognitive_Behavioral_Patterns_Template`
- **Fields:**
  - `Persona_Name` (Text, Required, reference to `Core_Identity_Template`)
  - `Communication_Style` (Text, Optional, with options like "Direct," "Assertive," "Nuanced," "Passive," "Aggressive")

- `Communication_Tone` (Text, Optional, with options like "Formal," "Informal," "Humorous," "Serious")
- `Communication_Channels` (List of Text, Optional, with options like "Verbal," "Written," "Social Media," "Email")
- `Decision_Making_Style` (Text, Optional, with options like "Impulsive," "Analytical," "Risk-Averse," "Intuitive")
- `Learning_Style` (Text, Optional, with options like "Visual," "Auditory," "Kinesthetic," "Experiential")
- `Conflict_Resolution_Style` (Text, Optional, with options like "Confrontational," "Collaborative," "Avoidant," "Passive-Aggressive")
- `Motivations` (List of Text, Optional, with options like "Achievement," "Power," "Affiliation," "Recognition," "Security")
- `Values` (List of Text, Optional, with options like "Individualism," "Collectivism," "Tradition," "Innovation," "Justice")
- `Source` (Text, Required, dropdown with options like "Text Analysis," "Behavioral Observation," "Expert Opinion")
- `Confidence_Level` (Integer, 1-5 scale)
- `Notes` (Text, Optional, free-form text for additional notes)

## D. Social & Environmental Influences

- **Form Name:** `Social_Environmental_Influences_Template`
- **Fields:**
  - `Persona_Name` (Text, Required, reference to `Core_Identity_Template`)
  - `Significant_Relationships` (List of Objects, Optional, each object with the following fields):
    - `Relationship_Type` (Text, Required, with options like "Family," "Friend," "Mentor," "Rival," "Enemy")
    - `Relationship_Name` (Text, Required)
    - `Relationship_Description` (Text, Optional, free-form text)
    - `Relationship_Strength` (Integer, 1-5 scale, 1 being weakest, 5 being strongest)

- `Social_Groups_Affiliations` (List of Text, Optional, free-form text)
- `Cultural_Background` (Text, Optional, free-form text)
- `Key_Events_Experiences` (List of Objects, Optional, each object with the following fields):
  - `Event_Name` (Text, Required)
  - `Event_Timestamp` (Date/Time, Required)
  - `Event_Description` (Text, Required, free-form text)
  - `Event_Impact` (Text, Optional, free-form text)
- `Source` (Text, Required, dropdown with options like "Public Record," "Social Media," "News Article," "Expert Opinion")
- `Confidence_Level` (Integer, 1-5 scale)
- `Notes` (Text, Optional, free-form text for additional notes)

## E. Knowledge & Expertise

- **Form Name:** `Knowledge_Expertise_Template`
- **Fields:**
  - `Persona_Name` (Text, Required, reference to `Core_Identity_Template`)
  - `Areas_of_Expertise` (List of Text, Optional, free-form text)
  - `Interests_Hobbies` (List of Text, Optional, free-form text)
  - `Books_Publications_Creative_Works` (List of Objects, Optional, each object with the following fields):
    - `Work_Title` (Text, Required)
    - `Work_Type` (Text, Optional, with options like "Book," "Article," "Publication," "Panel")
    - `Work_Description` (Text, Optional, free-form text)
    - `Work_Link` (Text, Optional, URL)
  - `Source` (Text, Required, dropdown with options like "Public Record," "Website," "Expert Opinion")
  - `Confidence_Level` (Integer, 1-5 scale)
  - `Notes` (Text, Optional, free-form text for additional notes)

## F. Narrative & Symbolic Representation

- **Form Name:** Narrative\_Symbolic\_Representation\_Template
- **Fields:**
  - Persona\_Name (Text, Required, reference to Core\_Identity\_Template )
  - Personal\_Narratives (List of Text, Optional, free-form text)
  - Symbolic\_Associations (List of Text, Optional, free-form text)
  - Source (Text, Required, dropdown with options like "Text Analysis," "Media Representation," "Expert Opinion")
  - Confidence\_Level (Integer, 1-5 scale)
  - Notes (Text, Optional, free-form text for additional notes)

### 1. Explicitly Modeling Bias as a Factor:

- **Bias Nodes:** Create nodes in the knowledge graph specifically for different types of biases (e.g., "Confirmation Bias," "Halo Effect," "In-Group Bias," "Availability Heuristic," "Anchoring Bias," etc.).
- **Influence Edges:** Connect these bias nodes to:
  - **Persona Nodes:** To indicate which biases are more prominent in a particular persona.
  - **Attribute Nodes:** To show how biases influence specific attributes (e.g., "Openness to Experience" might be negatively influenced by "Confirmation Bias").
  - **Behavior Nodes:** To demonstrate how biases affect decision-making, communication, and other behaviors.
  - **Scene Nodes:** To show how certain scenes or contexts might trigger specific biases.
- **Weighted Edges:** Use weighted edges to represent the strength of the influence of a particular bias. For example, a persona with a strong "Confirmation Bias" might have a higher weight on the edge connecting that bias to their "Information Seeking" behavior.

- **Bias Categories:** Categorize biases (e.g., cognitive, social, emotional) to help organize and analyze their impact.

## 2. Quantifying Bias Strength:

- **Bias Scores:** Develop a system for quantifying the strength of each bias in a persona. This could be based on:
  - **Frequency:** How often the persona exhibits behaviors associated with a particular bias.
  - **Intensity:** The strength of the bias when it is exhibited.
  - **Context:** The situations in which the bias is most likely to be triggered.
- **Data-Driven Assessment:** Use NLP and sentiment analysis to identify instances of biased language and behavior in the persona's source material.
- **Expert Ratings:** Have experts rate the persona's biases based on their analysis of the data.
- **Confidence Levels:** Assign confidence levels to bias scores based on the quality and quantity of supporting evidence.

## 3. Modeling Bias in Behavior:

- **Decision-Making Algorithms:** Incorporate biases into the algorithms that simulate the persona's decision-making process. For example, a persona with a strong "Availability Heuristic" might be more likely to make decisions based on recent or vivid examples, even if they are not statistically representative.
- **Communication Patterns:** Model how biases influence the persona's communication style. For example, a persona with a strong "Confirmation Bias" might be more likely to seek out and interpret information that confirms their existing beliefs.
- **Emotional Responses:** Model how biases affect the persona's emotional responses to different situations. For example, a persona with a strong "Negativity Bias" might be more likely to react negatively to ambiguous or uncertain situations.

- **Social Interactions:** Model how biases influence the persona's interactions with others. For example, a persona with a strong "In-Group Bias" might be more likely to favor members of their own group over those outside the group.

#### 4. Bias as a "Dial" or Variable:

- **Adjustable Parameters:** Make the strength of different biases adjustable parameters in the persona model. This will allow you to:
  - Explore how different biases influence behavior.
  - Simulate the impact of interventions aimed at mitigating bias.
  - Create different versions of the persona with varying levels of bias.
- **Scenario-Specific Adjustments:** Allow for adjusting bias levels based on the specific scene or context of the simulation. For example, a persona might exhibit stronger biases in a high-pressure or emotionally charged situation.