Beyond Inference Addendum: Gameshow for AI Reps and Implication Models

Michael Robbins, Washington, D.C.
www.linkedin.com/in/mwrxyz
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Author's Note
This extends the discussion draft of *Beyond Inference: Implication Models and the Future of Human-Centric AI* available at https://lists.w3.org/Archives/Public/public-humancentricai/2025Apr/att-0005/Beyond_Inference_Discussion_Draft_April2025.pdf

While Implication Models represent a necessary evolution beyond inference-driven AI, emphasizing causal reasoning and structured reflection over mere pattern recognition, they remain incomplete without addressing the deeper substrate from which meaning arises. Human understanding does not begin with logic. It emerges from lived experience — ambiguous, affective, and analog — only later taking on narrative coherence. This addendum introduces **Gameshow**, a proposed regenerative AI environment as a practical architecture to extend Implication Models into this missing domain. Gameshow will capture and integrate both pre-symbolic experiences and structured reflection, enabling AI Representatives (AI Reps) to learn not only from what users articulate but also from what they do, feel, and explore. Furthermore, Gameshow's design addresses critical challenges in data collection, representation, and scalability by empowering individuals to become the architects of their AI's knowledge. Together, these advances extend Implication Models toward a more comprehensive framework for emergent, grounded, and human-aligned intelligence.

1. Beyond Symbolic Reasoning

Implication Models introduce an essential reframing of AI learning: that systems must move beyond statistical associations to encode causal, consequential, and narrative experiences. By organizing experiences into the DOTES schema (Do, Observe, Tell, Explore, Show), AI systems begin to reason through the lens of human meaning-making.

Yet symbolic representations, even when structured as narratives, arise *after the fact*. They reflect not raw experience, but what has been remembered, interpreted, and shaped into communicable form. As cognitive science and human development research remind

us, intelligence emerges not from logic, but from perception, action, and affect. These **pre-symbolic experiences** — perceptual streams, embodied reactions, and relational interactions — precede the narratives we later construct.

Without mechanisms to connect AI learning to these foundational layers of human cognition, Implication Models risk repeating the shortcomings of past symbolic approaches. To become truly human-centered, AI must engage with meaning as it emerges — not only as it is later formalized.

2. A Regenerative Human-Centric Architecture

Gameshow is proposed as an *everyone app* designed to meet this challenge. It offers a structured environment for cultivating emergent and reflective learning. Participants build and evolve AI Reps through ongoing interaction, narrative reflection, and dynamic co-experience.

2.1 Structured Stages of Meaning-Making

Gameshow introduces three interdependent phases through which meaning emerges, is reflected upon, and becomes encoded for AI learning:

- **Casting Call** initiates AI Rep formation through exploratory conversations. These are inherently ambiguous, situated in values, identity, and open-ended dialogue — the space of pre-symbolic, relational interaction.
- **Backstage** deepens and organizes these early engagements. Through dialogic reflection and feedback, users intentionally encode their experiences into DOTES structures, curating coherent and teachable narratives with reduced semantic ambiguity.
- **The Arena** introduces dynamic, socially-situated scenarios. Through challenges and interactive exchanges, new pre-symbolic experiences arise — moments of negotiation, adaptation, and affective response — which are later structured and integrated through reflection.

2.2 Learning Loops

Gameshow integrates three interconnected learning loops:

1. **Pre-symbolic capture**: through dialog, choices, and affective signals.
2. **Structured reflection via DOTES**: user-authored entries create narrative coherence.
3. **Implication-based generalization**: AI Reps learning from accumulated narrative patterns across diverse experiences.

3. Addressing Practical and Ethical Challenges

By integrating these layers, Gameshow resolves several persistent limitations identified in the original Implication Models framework:

- **Premature abstraction** is mitigated as symbolic reasoning arises only after and through situated, embodied experience.
- **Tacit knowledge and context sensitivity** are preserved, as AI Reps learn not solely from narratives but from the ambiguous and affective dynamics of lived interaction.
- **Dynamic and continual learning** is achieved through Gameshow's regenerative design, where new experiences continually refine and expand AI Reps' knowledge.
- **Participatory knowledge formation** is ensured as users retain agency over what is reflected, structured, and shared. The AI Rep becomes a representation of the individual's evolving perspective, not a product of impersonal data harvesting.
- **Bias mitigation and data dignity** are central. Because each AI Rep is grounded in the experiences of a specific user — not drawn from globalized, scraped corpora — representation emerges naturally from a plurality of lived realities. Skew is reduced through intentional, contextual, and self-curated data contribution.
- **Scalable and ethical data collection** becomes possible, as participants knowingly and voluntarily contribute meaningful, structured experiences into the AI learning ecosystem.

4. From Implication to Emergence

Gameshow will operationalize the next phase of Implication Models. By integrating pre-symbolic experience, structured reflection through DOTES, and implication-based reasoning into a unified architecture, it advances the goal of building AI systems that reason with — not merely about — human experience.

AI Reps trained in this environment are not passive predictors, nor static models. They are dynamic companions shaped through emergent interaction, capable of carrying forward lessons from ambiguous, affective, and narrative experiences alike.

Through this regenerative and participatory design, Gameshow addresses the dual mandate of future AI systems: to reflect human complexity while empowering human agency. In doing so, it extends Implication Models from structured representation toward emergent meaning, and from retrospective knowledge capture toward living, evolving alignment with the people and communities AI serves.