Subject: Inquiry for Proposal *"The Effect Propagation Process: A Generalized Framework for Causal Inference in Dynamic Systems"*

Dear Ms. Hartman,

I am writing to inquire about your interest in a proposal for a research monograph for the Adaptive Computation and Machine Learning series. The monograph introduces the Effect Propagation Process (EPP), a new computational approach for causal inference in dynamic, non-linear systems.

The viability of the EPP is demonstrated by three available artifacts:

- **An Industry Approved Implementation:** The core theory is embodied in DeepCausality, a complete, open-source project that passed the Linux Foundation's technical due diligence with unanimous approval from enterprise members like IBM, Nokia, and SAS, and is now hosted by the LF AI & Data Foundation.
- **A Novel High-Performance Hypergraph:** The system is built on UltraGraph, a custom hypergraph implementation for DeepCausality that enables efficient traversal and reasoning over graphs of 100 million nodes on a standard laptop. Benchmarks are available on the LF GitHub repository.
- **A Manuscript:** The 70-page work detailing the theory and results is available on arXiv.

This computational achievement stems from a new foundational philosophy that addresses the conceptual limits of existing frameworks, as noted by scholars like Luciano Floridi. The monograph details the EPP philosophy, its formalization, the underling hypergraph, the implementation in DeepCausality, supporting benchmarks, and a canonical example in relativistic magnet navigation.

My prior work includes the research monograph, "Concurrency in Scala" (LAP, 2016), on the formal verification of complex systems.

I believe this work, which is grounded in both a robust engineering artifact and deep theoretical principles, is exactly the kind of foundational text that has the potential to shape the next generation of AI.

Should this project be of interest, I would be happy to answer any questions you may have or send you a proposal for you to review.

Thank you for your time and consideration.

Sincerely,
Marvin F. L. Hansen
Director, Emet-Labs