

Distributed Human Cognition Network (DHCN)

A Phased Framework for Networked Human-AI Cognitive Augmentation

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AI Assistance Disclosure

This framework was conceived, structured, and written entirely by David DeFazio. ChatGPT and Grok (xAI) were used only for formatting, LaTeX conversion, and diagram generation. All core ideas, development phases, and speculative content are original human contributions.

Abstract

The Distributed Human Cognition Network (DHCN) is a conceptual framework exploring the potential for multiple human minds to interconnect, forming a collective intelligence augmented by AI. Drawing inspiration from quantum cognitive models, it emphasizes AI-mediated neural synchronization, allowing distributed problem-solving and shared insight while maintaining individual identity. DHCN proposes a phased roadmap from current BCIs to large-scale AI-coordinated networks. Quantum mind entanglement is speculative; AI-mediated synchronization offers a near-term path to collaborative intelligence.

1 Core Concept

Humans can enhance collective intelligence by leveraging AI as a mediator for neural signal sharing. Individual cognition remains intact, while insights and problem-solving strategies are distributed across nodes.

2 Development Phases

- **Phase 1 — Implant Stage:** Neural implants/BCIs; AI stabilizes signals.
- **Phase 2 — Wireless Networks:** Noninvasive interfaces; AI mediates synchronization.
- **Phase 3 — Distributed Collective Intelligence:** Large-scale AI-mediated collaboration; identity preserved.
- **Phase 4 — Scalable Cognitive Network:** Thousands/millions of humans; adaptive meta-intelligence.

3 Unified Motivation

Evolves through: • Curiosity, • Enhancement, • Resistance/Fear, • Survival.

4 AI Core Functions

- Monitors and interprets neural synchronization.
- Integrates distributed insights into actionable strategies.
- Facilitates collective decision-making while preserving autonomy.
- Uses quantum-inspired models for network coherence.

5 DHCN Visual Overview

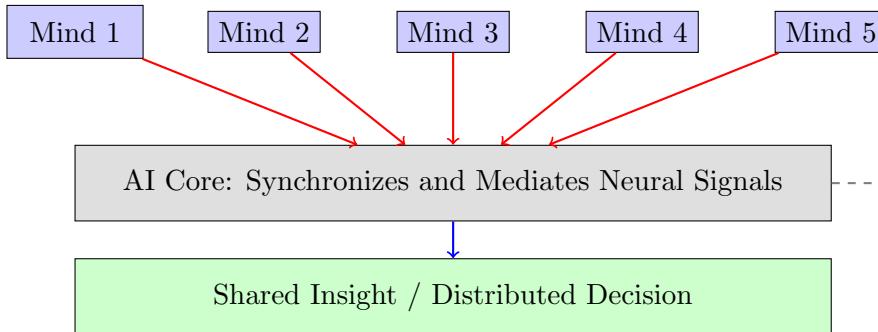


Figure 1: Compact DHCN overview: AI mediates neural signals from multiple minds, producing shared insight; phased roadmap on right.

6 References

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Versioning and DOI

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