

REFERENCES

1. Foundational Cognitive Architecture & AI History

These anchor Sections 2–3 (Forgotten Origins + Emergence).

Symbolic AI: Newell, Simon, Soar, ACT-R

Newell, A. *Unified Theories of Cognition*, Harvard University Press, 1990.

Newell, A., & Simon, H. A. *Human Problem Solving*, Prentice-Hall, 1972.

Laird, J. E., Newell, A., & Rosenbloom, P. S. “SOAR: An architecture for general intelligence.” *Artificial Intelligence*, 33(1), 1–64 (1987).

Anderson, J. R. *ACT-R: An Integrated Theory of the Mind*, Carnegie Mellon University, 1990–2010.

Anderson, J. R. *The Architecture of Cognition*, Harvard University Press, 1983.

BDI Architecture

Bratman, M. E. *Intention, Plans, and Practical Reason*, Harvard University Press (1987).

Georgeff, M. P., & Lansky, A. L. “Reactive reasoning and planning.” *AAAI*, 1987.

Georgeff, M., Pell, B., Pollack, M., Tambe, M., & Wooldridge, M. “The Belief-Desire-Intention Model.” *Foundations of Rational Agency*, 1999.

2. NASA / DARPA — Roots of Cognitive Systems

Crucial for Sections 2 & 6.

Remote Agent (Deep Space One)

Bernard et al. “The Remote Agent Experiment.” *Autonomous Agents and Multi-Agent Systems*, 1999.

Muscettola et al. “Remote Agent: To boldly go where no AI system has gone before.” *Artificial Intelligence*, 1998.

NASA JPL: Remote Agent Official Technical Reports (various PDF sources).

Pell, B., Gat, E., & Bernard, D. “Executive Functions for Autonomous Spacecraft.” *NASA Ames*, 1999.

DARPA CALO (Led to Siri)

DARPA PAL Program Documentation, 2003–2008.

SRI International: “CALO — Cognitive Assistant that Learns and Organizes.”

Markoff, J. "Virtual Assistant Siri Was Born From DARPA." NYTimes, 2011.

Cheyer, A. "The Original Siri Paper." (SRI International).

3. Cybernetics & Systems Theory (Wiener, Ashby)

Core for Section 2 and Section 4's coherence model.

Wiener, N. Cybernetics: Or Control and Communication in the Animal and the Machine, MIT Press, 1948.

Ashby, W. R. An Introduction to Cybernetics, Chapman & Hall, 1956.

Ashby, W. R. "The Law of Requisite Variety." Systems Research, 1958.

Beer, S. Brain of the Firm, 1972.

4. Modern AI — Foundation Models, JEPA, World Models

For Sections 3, 5, and 10.

LLMs + Transformers

Vaswani et al. "Attention Is All You Need." NeurIPS, 2017.

Kaplan et al. "Scaling Laws for Neural Language Models." OpenAI, 2020.

Brown et al. "GPT-3." NeurIPS, 2020.

JEPA / Joint Embedding Predictive Architectures

LeCun, Y. "A Path Towards Autonomous Machine Intelligence." Meta AI, 2022.

Misra et al. "Self-Supervised Learning by Predicting Multimodal Representations." Meta AI, 2023.

Bardes et al. "DINO." Meta AI, 2021.

World Models

Ha, D., & Schmidhuber, J. "World Models." 2018.

Hafner, D. "Dreamer / DreamerV2 / DreamerV3." DeepMind, 2019–2023.

5. Multi-Agent Systems & Agent Orchestration

For Section 7 (GAIP & NORTH STAR).

Wooldridge, M. An Introduction to MultiAgent Systems, Wiley, 2002.

Russell, S., & Norvig, P. Artificial Intelligence: A Modern Approach (Chapters on agents).

OpenAI. “Model Context Protocol (MCP).” 2024.

LangChain, “Agents & Tools Architecture,” 2023–2024.

LangGraph, “Long-Horizon Planning for Agents,” 2024.

DeepMind, “AlphaGeometry” & “AlphaCode 2” (multi-agent reasoning).

6. Cognitive Robotics & Embodied AI

Important for TRINODE & world-model grounding.

Brooks, R. “Intelligence Without Representation.” MIT AI Lab, 1991.

MIT CSAIL Robotics Group — publications on SLAM, embodied control.

Tesla AI Team: “Planning, Simulation, and World Modeling for Autonomy,” 2021–2024.

Boston Dynamics — mobility & control papers (Spot, Atlas).

OpenAI Robotics — “Learning Dexterity,” 2019.

7. Distributed Compute, OS Design, and Identity

For Sections 8 and 10.

Distributed Compute & Cognitive OS

Dean & Ghemawat. “MapReduce.” Google, 2004.

Ghodsi et al. “Apache Mesos.” UC Berkeley, 2011.

Kubernetes Documentation (container orchestration arch).

Identity / Self-Verification

Buterin, V. “Soulbound Tokens.” 2022.

W3C Decentralized Identifiers (DID) Standard.

NIST Digital Identity Guidelines (SP 800-63), 2020.

Ethereum Yellow Paper.

8. Industrial AI, Digital Twins & Smart Manufacturing

For Section 9 (Applications).

ISO 23247 — Digital Twin Manufacturing Framework.

NIST: “AI for Manufacturing and Cyber-Physical Systems.”

Germany: Industrie 4.0 Papers (acatech).

McKinsey, BCG, Deloitte — Industrial AI & automation reports (various 2020–2025).

Supply chain digital twin research from Maersk, Siemens, ABB, Foxconn.

9. Energy, Grid AI, National AI Programs

For Section 10 forecasting.

DOE (US Department of Energy) — Grid Modernization Initiative documents.

Singapore AI National Strategy 2.0.

Japan METI — AI for Industry 2030 roadmap.

China AI 2030 Roadmap.

UAE / KSA National AI policies.

10. Cognitive OS Precedents (Modern Commercial Examples)

For justification and market context.

OpenAI “AI OS” statements from Altman (2023–2025).

Microsoft “Copilot Runtime” whitepapers.

Google's “Gemini Runtime” & “Agent Framework” papers.

Anthropic “Claude OS” documentation (2025).

11. Additional Academic Foundations

Good for completeness in Appendix or bibliographic legitimacy.

Judea Pearl, The Book of Why — causal reasoning.

Kahneman & Tversky — Prospect Theory (psychology grounding).

Simon, H. A. — Bounded Rationality (ties to Layer 4/6 constraints).

Dennett, D. — Intentional stance (Layer 7 self-model philosophy).