**Annotated Bibliography**

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**Zhang, C., Wang, H., & Li, J. (2023).** Multi-agent collaboration in large language model ecosystems: Opportunities and challenges. Journal of Artificial Intelligence Research, 76(4), 1021–1045. https://doi.org/10.1613/jair.1.14123

This article examines the ways in which large language models (LLMs) can enable multi-agent systems (MAS) to work together to resolve challenging, domain-specific problems. The authors look at design frameworks that enable agents to engage collectively on issues like automated negotiation or financial planning by providing them with role-specific prompts, memory systems, and communication protocols. The study draws attention to organisational and technical issues like resource allocation, agent cooperation, and the possibility of emerging unwanted behaviours.

The results demonstrate that when agents are properly aligned, collaboration increases efficiency and job completion rates; however, standardised communication protocols and metadata registries are critical to system reliability. This clearly relates to my capstone, where NANDA mandates the establishment of a Society of Agents in addition to agent creation. Zhang et al. offer proof that organised cooperation and interoperability may transform discrete AI tools into useful ecosystems, which is the exact infrastructure problem our project is attempting to solve.

**Roy, P. (2025). Revolutionizing supply chain management with AI agents on Databricks.** International Journal of Scientific Research in Computer Science, Engineering and Information Technology, 11(2), 3135–3141. https://doi.org/10.32628/cseit25112710

In order to optimise supply chain operations, Roy's essay presents four domain-specific AI agents: the Goods Delivery Advisor, the Sustainability Policy Advisor, the Quality Inspection Advisor, and the Procurement Policy Advisor. Each agent focusses on a certain task, like identifying quality control flaws or predicting delivery delays. The study demonstrates how task-specific, organised agents increase productivity, lower expenses, and guarantee sustainability compliance in logistical processes.

The results highlight the quantifiable commercial impact that specialised agents can produce when integrated. The NANDA Sandbox project, which requires each student group to develop agents with certain responsibilities and then incorporate them into a Society of Agents, has a direct bearing on this. Roy's supply chain example shows how scalable value is produced through integration and explicit work allocation. It reaffirms the idea that job clarity and seamless collaboration should be the main priorities of agent design—lessons I can use when deploying my own agents.

**Park, J. S., O’Brien, J., Cai, C. J., Morris, M. R., Liang, P., & Bernstein, M. S. (2023).** Generative agents: Interactive simulacra of human behavior. Proceedings of the 36th Annual ACM Symposium on User Interface Software and Technology, 1–22. https://doi.org/10.1145/3586183.3606763

In this study, "generative agents," AI-powered characters that mimic human behaviour in a little virtual community, are introduced. LLMs, embeddings, and memory modules let each agent to recall previous interactions, think back on experiences, and make plans for the future. The work demonstrates how agents, without explicit hardcoding, evolved emergent social behaviours, such as going to events, making friends, and organising activities.

The results show that AI agents have the capacity to collaborate in dynamic, adaptive ways in addition to performing tasks. The NANDA Sandbox project, which imagines a future in which agents function on the "Open Agentic Web," has a close connection to this. The generative agent model offers a tangible illustration of how structured interaction, memory, and metadata contribute to the development of emergent collective intelligence. In order to facilitate richer collaboration within the Society of Agents, my capstone emphasises the significance of integrating memory and reflection characteristics into agents.