

# LinkedIn Thought Leadership Agent

An agentic AI skills pack that transforms a single strategic intent into a 6-week LinkedIn content series — complete with narrative arcs, voice consistency, human-in-the-loop checkpoints, and automated posting via MCP.

*MSIS 549 B — Machine Learning & AI for Business Applications University of Washington, Winter 2025-2026 | Homework 2: Agentic AI for Real-World Impact*

## The Problem

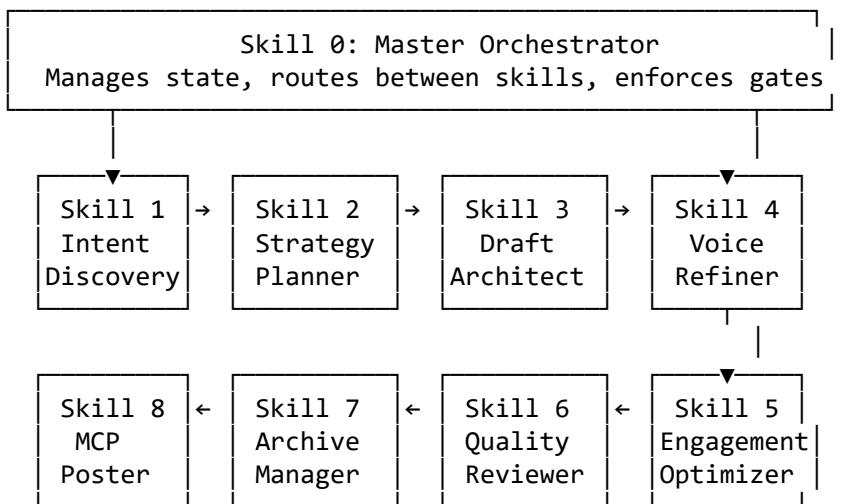
Creating consistent, high-quality LinkedIn thought leadership is time-consuming and cognitively demanding. Most professionals default to one of two failure modes:

1. **Generic AI output** — "In today's data-driven world..." posts that all sound the same
2. **Sporadic posting** — starting strong, then going silent for weeks

This system solves both by decomposing content creation into specialized skills that enforce quality, consistency, and strategic coherence across a 6-week publishing cadence.

## Architecture

The system follows **Path A** (Agentic Skills Pack) with **9 specialized skills** orchestrated by a master controller:



HITAL Checkpoints: — 5a (Content Review) — 6a (Benchmark Gate) —

## Skills Summary

| # | Skill               | Purpose   |
|---|---------------------|---|
| 0 | Master Orchestrator | Pipeline control, state management, error recovery                              |
| 1 | Intent Discovery    | 5-question interview to extract strategic intent                                |
| 2 | Content Strategist  | 6-week narrative arc with Hook→Framework→Story→Tactics→Vision→CTA structure     |
| 3 | Draft Architect     | First drafts with anti-AI-ism rules (no "In today's...", no "Let's dive in...") |

|   |                      |   |
|---|----------------------|---|
| 4 | Voice & Tone Refiner | Detects and replaces 15+ AI patterns with human voice                     |
| 5 | Engagement Optimizer | LinkedIn-specific optimization (hooks, CTAs, hashtags, visuals) + HITL 5a |
| 6 | Quality Reviewer     | 5-metric scoring rubric (1-5 scale) + HITL 6a benchmark gate              |
| 7 | Archive Manager      | Structured archival with full metadata for reproducibility                |
| 8 | Poster & Reviewer    | LiGo MCP integration for automated LinkedIn posting                       |

## Key Design Decisions

1. **Anti-AI-ism as a first-class concern** — Skills 3-4 contain explicit banned-pattern lists and replacement tables
2. **Two mandatory HITL checkpoints** — Content never publishes without human approval
3. **Narrative cohesion by design** — Skill 2 plans the full 6-week arc before any drafting begins
4. **MCP integration** — Skill 8 uses LiGo MCP for direct LinkedIn posting (with manual fallback)

## Benchmark Results

| Test Case                     | Actionability | Voice      | Depth      | Cohesion   | LinkedIn   | Overall    |
|-------------------------------|---------------|------------|------------|------------|------------|------------|
| SQL Performance (Agentic)     | 4.2           | 4.7        | 4.3        | 4.8        | 4.3        | <b>4.5</b> |
| Data Cleanliness (Agentic)    | 4.2           | 4.2        | 4.0        | 4.5        | 4.0        | <b>4.2</b> |
| WAL Protocol (Edge Case)      | 3.5           | 2.5        | 4.0        | 3.8        | 3.2        | <b>3.4</b> |
| Vague Input (Ambiguous)       | 3.5           | 3.8        | 3.2        | 4.0        | 3.5        | <b>3.6</b> |
| <b>Single-Prompt Baseline</b> | <b>2.5</b>    | <b>2.2</b> | <b>1.8</b> | <b>1.0</b> | <b>2.5</b> | <b>2.0</b> |

**Key finding:** The agentic system outperformed the single-prompt baseline by **+2.5 points** on the primary test case (4.5 vs 2.0). Biggest improvement was in Narrative Cohesion (+3.8), which a single prompt fundamentally cannot achieve.

See [benchmark/BENCHMARK\\_APPENDIX.md](#) for full methodology, scoring rubrics, and failure analysis.

## Repository Structure

```

├── README.md                                # This file
├── TUTORIAL_WRITEUP.md                      # Full tutorial (assignment submission)
└── skills/
    ├── skill_0_master_orchestrator.md      # Pipeline orchestration
    ├── skill_1_intent_discovery.md        # Strategic intent interview
    ├── skill_2_content_strategist.md       # 6-week arc planning
    ├── skill_3_draft_architect.md         # First draft generation
    ├── skill_4_voice_tone_refiner.md      # AI pattern detection & replacement
    ├── skill_5_engagement_optimizer.md    # LinkedIn optimization + HITL 5a
    ├── skill_6_quality_reviewer.md        # 5-metric scoring + HITL 6a
    ├── skill_7_archive_manager.md         # Structured archival
    └── skill_8_poster_reviewer.md        # LiGo MCP integration
└── benchmark/
    └── BENCHMARK_APPENDIX.md              # Full benchmark methodology & results
└── outputs/
    ├── Q1_2026_SQL_Performance_Series.md # Generated 6-week series
    └── 2026_Roadmap_Plan.md               # Annual content roadmap
└── diagrams/

```

```
└─ architecture_infographic.html # A4 landscape architecture diagram  
└─ archive/                      # Session archives (generated at runtime)
```

## How to Use

### Prerequisites

- Claude Code (or any Claude-based IDE with skill file support)
- Optional: [LiGo MCP](#) for automated LinkedIn posting

### Quick Start

1. Clone this repository
2. Copy the `skills/` directory to your Claude Code skills folder (`~/.claude/skills/`)
3. Start a conversation and say: *"I want to create a LinkedIn thought leadership series about [your topic]"*
4. The orchestrator will guide you through:
  - **Intent Discovery** — 5-question interview to clarify your topic, audience, and message
  - **Content Strategy** — A 6-week narrative arc tailored to your intent
  - **Draft Generation** — 6 polished posts with anti-AI-ism enforcement
  - **Human Review** — Two checkpoints where you approve or revise content
  - **Publishing** — Direct to LinkedIn via MCP or manual copy/paste

### Example Input

Topic: Optimizing SQL Query Performance

Audience: Data Engineers & Business Stakeholders

Core Message: Continuous improvement in SQL is essential for AI-readiness

Anecdote: Business team frustrated when data wasn't in sync with AI models

Tone: Provocative + Educational

### Example Output

See [outputs/Q1\\_2026\\_SQL\\_Performance\\_Series.md](#) for the full 6-week series generated from the input above.

## Tech Stack

- **LLM:** Claude (via Manus AI agentic platform)
- **MCP Integration:** LiGo MCP for LinkedIn API access
- **Evaluation:** Human rubric scoring (5-metric, 1-5 scale)
- **Architecture:** Path A — Agentic Skills Pack (markdown skill files)

## Known Limitations

1. **Voice Consistency on technical topics** — Skill 4's voice refiner is optimized for Manager/Director audiences. Deeply technical audiences (e.g., database kernel engineers) score lower (2.5/5) because the refiner over-simplifies jargon.
2. **Single-rater evaluation** — Benchmark scores are from one human evaluator. Inter-rater reliability with 2+ evaluators would strengthen the results.
3. **No A/B testing** — Posts haven't been tested against actual LinkedIn engagement metrics yet.

## License

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