LinkedIn Thought Leadership Agent — Design Document

Author: Taashi Manyanga **Version**: 1.0 (Claude Edition) **Date**: February 2026 **Repository**: https://github.com/taashim-eng/linkedin-thought-leadership-agent

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1. System Overview

1.1 Purpose

The LinkedIn Thought Leadership Agent is a 9-skill sequential pipeline that transforms a user's topic and domain expertise into a polished, cohesive 6-week LinkedIn content series. It enforces narrative structure, authentic voice, quality benchmarking, and optional automated publishing.

1.2 Design Philosophy

- **Single responsibility per skill**: Each skill does exactly one thing. Debugging is immediate — if voice sounds wrong, look at Skill 4.
- **Sequential pipeline over parallel**: Posts must form a narrative arc; parallel generation produces disconnected content.
- **Human judgment at every gate**: Two mandatory HITL checkpoints ensure the user controls quality.
- **Reproducibility first**: Every session is archived with full metadata so any run can be reconstructed.

1.3 Architecture Type

Path A — Agentic Skills Pack (Markdown files) Platform-agnostic: tested on Manus AI and Claude Code.

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2. Component Inventory

#	Skill File	Name	Phase	Type
0	`skill_0_master_orchestrator.md`	Master Orchestrator	All	Controller
1	`skill_1_intent_discovery.md`	Intent Discovery	Phase 1	Input
2	`skill_2_content_strategist.md`	Content Strategist	Phase 2	Planner
3	`skill_3_draft_architect.md`	Draft Architect	Phase 3	Generator
4	`skill_4_voice_tone_refiner.md`	Voice & Tone Refiner	Phase 3	Transformer
5	`skill_5_engagement_optimizer.md`	Engagement Optimizer	Phase 3 + HITL	Formatter
6	`skill_6_quality_reviewer.md`	Quality Reviewer	Phase 5 + HITL	Evaluator
7	`skill_7_archive_manager.md`	Archive Manager	Phase 6	Persister
8	`skill_8_poster_reviewer.md`	Poster & Reviewer	Phase 6	Publisher

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3. Skill Interface Specifications

Skill 0: Master Orchestrator

Trigger	User states topic intent
Inputs	Topic string from user
Outputs	Orchestrates all phases; final confirmation
State Managed	`strategic_intent`, `roadmap`, `drafts[]`, `feedback_log`, `benchmark_scores`
Gates	Phase 1→2: all 5 interview answers complete; Phase 3→4: HITL 5a approved; Phase 5→6: HITL 6a approved
Error Recovery	Retry / skip / abort options on any skill failure

Skill 1: Intent Discovery

Trigger	Invoked by Skill 0 at Phase 1
Inputs	Topic title (string)
Outputs	Strategic Intent Document (structured markdown)
Fields Produced	Topic, Audience, Core Message, Personal Anecdote, CTA, Tone
Constraint	Must not proceed until all 5 questions answered
Failure Mode	Vague answer → one follow-up then best-interpretation with flagged assumption

Skill 2: Content Strategist

Trigger	Invoked by Skill 0 at Phase 2
Inputs	Strategic Intent Document
Outputs	6-Week Content Roadmap (table: week, arc position, title, objective, key content, teaser)
Arc Structure	Week 1: Hook → Week 2: Framework → Week 3: Story → Week 4: Tactics → Week 5: Vision → Week 6: Call
Constraint	Each week must have a distinct angle; no two weeks can be the same post reworded
Failure Mode	Topic too narrow → suggest broadening; topic too broad → suggest narrowing

Skill 3: Draft Architect

Trigger	Invoked by Skill 0 at Phase 3
Inputs	Strategic Intent Document + 6-Week Roadmap

Outputs	6 initial post drafts (150-300 words each)
Post Structure	Hook / Body (2-3 paragraphs) / Insight / CTA / Hashtags (3-5) / Teaser
Constraint	Anti-AI-ism rules enforced (banned patterns list); personal anecdote in Week 3 only
Failure Mode	Draft too generic → add specificity; draft too long → tighten

Banned Patterns (Skill 3):

- "In today's fast-paced world..." / "In the era of..."
- "Let's dive in..." / "Let's explore..."
- "It's important to note that..."
- "In conclusion..." / "To sum up..."
- Excessive hedging ("might," "could potentially")
- Lists that start with "Here are X things..."

Skill 4: Voice & Tone Refiner

Trigger	Invoked by Skill 0 at Phase 3 (after Skill 3)
Inputs	6 initial drafts + Tone specification from Strategic Intent
Outputs	6 refined drafts with leader's voice applied
Detection Table	AI patterns identified and replaced (see table below)
Constraint	Do not change core message or structure; do not make posts longer
Failure Mode	Over-refinement → dial back; tone mismatch → re-apply tone table

Detection & Replacement Table (Skill 4):

AI Pattern	Replacement Rule
"In today's fast-paced world"	Delete — start with specific claim
"Let's dive in" / "Let's explore"	Delete — start content directly
"It's important to note"	Delete — if important, reader sees it
"This is a game-changer"	Replace with specific impact metric
"Leverage" / "Synergy"	Replace with plain language
"In conclusion"	Delete — CTA serves this purpose
"In the era of AI"	Delete — start with specific claim

Tone Application Table (Skill 4):

Tone	Technique
Provocative	Bold claims, rhetorical questions, challenges to assumptions
Educational	Numbered steps, "here's how" framing, concrete examples

Empathetic	First-person struggles, "I've been there" language
Data-driven	Lead with statistics, percentages, benchmark comparisons

Skill 5: Engagement Optimizer

Trigger	Invoked by Skill 0 at Phase 3 (after Skill 4)
Inputs	6 refined drafts
Outputs	6 LinkedIn-optimized posts + visual recommendations + HITL 5a user feedback
Hook Rule	Must fit within 200 chars; must not start with "I"; must create curiosity or tension
Formatting Rules	Short paragraphs (1-3 sentences), line breaks between paragraphs, max 5 hashtags
Visuals	One visual recommendation per post; HTML diagram if relevant (1080x1080 preferred)
HITL 5a	PAUSE — user reviews all 6 posts; each gets Approve / Revise / Reject response
Routing on Revision	Voice/tone → re-invoke Skill 4; content/structure → re-invoke Skill 3; formatting → apply in Skill 5

Visual Recommendation Guidelines:

Week	Visual Type
1	Conceptual split-screen / comparison
2	Framework ladder / staircase
3	Before/after process flow
4	Numbered action list infographic
5	Timeline comparison (present vs future)
6	Series journey map

Skill 6: Quality Reviewer

Trigger	Invoked by Skill 0 at Phase 5 (after HITL 5a approval)
Inputs	6 approved posts + Strategic Intent Document
Outputs	Quality Scorecard (per-post + aggregate) + HITL 6a user feedback
Scoring Scale	1-5 per metric, per post; aggregate per metric and overall
Threshold	Any post scoring below 3.0 on any metric → flagged for mandatory revision
HITL 6a	PAUSE — user reviews scorecard; approve or request changes

Scoring Rubric (Skill 6):

Metric	5 (Excellent)	3 (Acceptable)	1 (Poor)
Actionability	Specific, immediately actionable, measurable outcome	General advice requiring interpretation	Vague inspiration, no next step
Voice Consistency	Indistinguishable from real leader; consistent all 6 posts	Professional but generic; minor drift	Obviously AI-generated; voice varies
Strategic Depth	Insider knowledge, specific examples, contrarian insight	Standard industry points, competent	Surface observations anyone could write
Narrative Cohesion	Clear thread all 6 weeks; teasers create anticipation	Loosely related; could be reordered	6 unrelated articles on same broad topic
LinkedIn Optimization	Strong hook, clean formatting, hashtags, visual	Acceptable but hook weak or hashtags generic	Wall of text, no hook, no CTA

Skill 7: Archive Manager

Trigger	Invoked by Skill 0 at Phase 6 (after HITL 6a approval)
Inputs	All prior outputs: strategic intent, roadmap, 6 posts, benchmark scores, feedback log
Outputs	`archive/[Topic_Slug]_[YYYY-MM-DD].md + .pdf`
Naming Convention	`archive/SQL_Query_Performance_2026-02-17.md`
PDF Generation	`md-to-pdf [file].md` (install: `npm install -g md-to-pdf`)
Constraint	Do NOT modify content — archive exactly what was approved

Skill 8: Poster & Reviewer

Trigger	Invoked by Skill 0 at Phase 6 (optional)
Inputs	Final approved post(s); optional schedule
Outputs	Live LinkedIn post URL/URN; publication log entry
Always Presents	Option A (manual, recommended) + Option B1 (MCP) + Option B2 (direct API)
Constraint	ALWAYS confirm before publishing; never auto-post
Token Lifespan	60 days; use `linkedin_refresh_token` or re-run OAuth on expiry

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4. State Management

The Master Orchestrator (Skill 0) maintains these artifacts throughout the session:

```
SESSION STATE
├── strategic_intent        ← Output of Skill 1; used by Skills 2, 3, 6
├── roadmap                 ← Output of Skill 2; used by Skill 3
```

```
├── drafts[]                ← Living array; updated by Skills 3, 4, 5
│   ├── draft_v1[]          ← Skill 3 output
│   ├── draft_v2[]          ← Skill 4 output
│   └── draft_v3[]          ← Skill 5 output (LinkedIn-optimized)
├── feedback_log            ← User feedback from HITL 5a and 6a
└── benchmark_scores        ← Output of Skill 6; stored in archive
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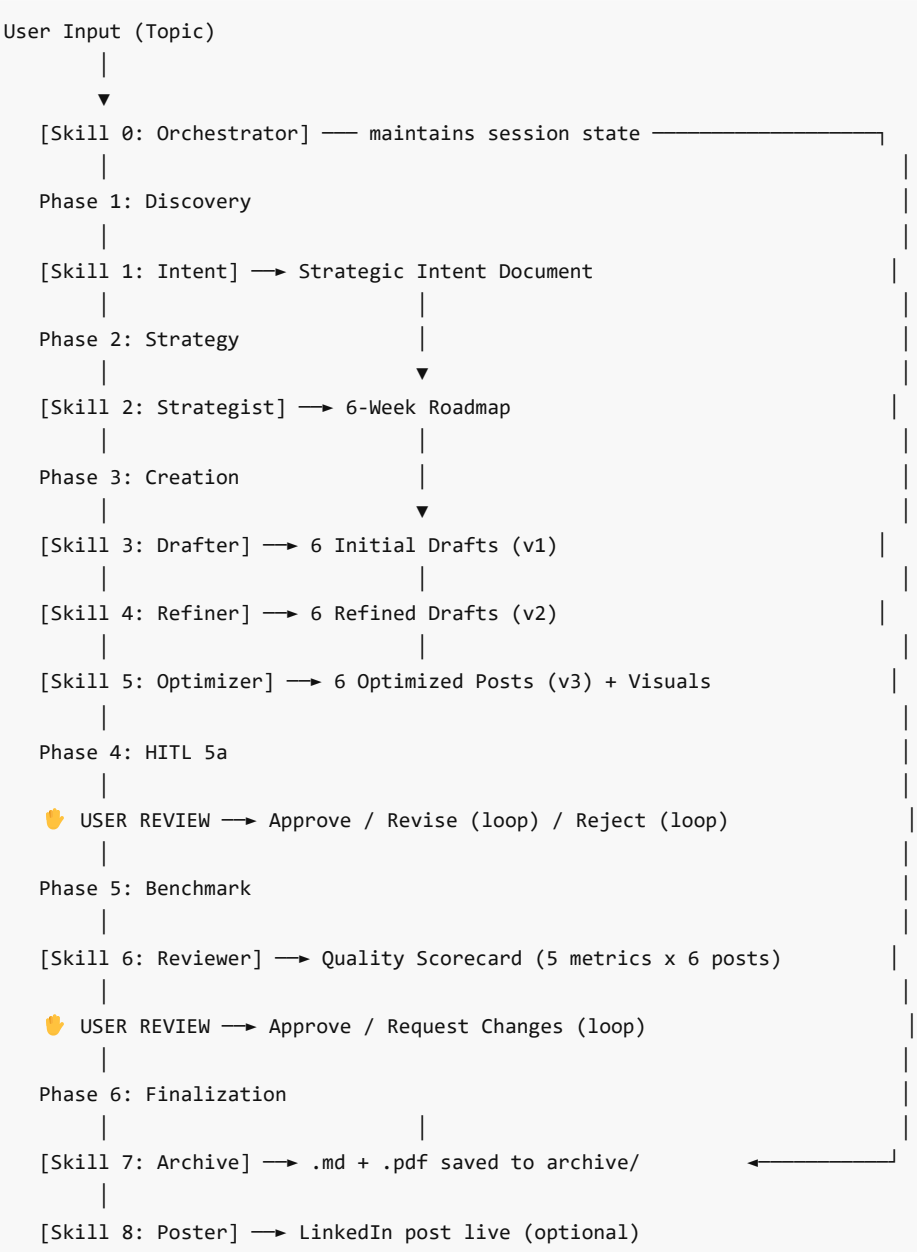
5. Data Flow Diagram



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6. HITL Checkpoint Design

Checkpoint 5a (Content Review)

- **Trigger**: After Skill 5 completes
- **User Decision**: Per post: Approve / Revise / Reject
- **Revision Routing**:
  - Voice/tone issue → re-invoke Skill 4 → re-run Skill 5
  - Content/structure issue → re-invoke Skill 3 → re-run Skills 4 and 5
  - Formatting only → apply directly in Skill 5
- **Gate**: ALL 6 posts must be approved before Phase 5 begins
- **Rationale**: Prevents benchmark effort on content the user would reject

Checkpoint 6a (Benchmark Gate)

- **Trigger**: After Skill 6 completes
- **User Decision**: Approve scorecard / Request changes
- **If changes requested**: Loop back to Phase 3 with specific revision instructions
- **Gate**: User must explicitly approve before Phase 6 begins
- **Rationale**: Gives user confidence in quality metrics before archiving and publishing

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7. Error Handling

Error Scenario	Recovery Action
Skill fails to invoke	Log error; present Retry / Skip / Abort to user
Incomplete interview answers (Skill 1)	Prompt for clarification; proceed with flagged assumption if user declines
Draft too generic (Skill 3)	Add specific examples, numbers, or tool names before passing to Skill 4
AI pattern detected post-refinement (Skill 4)	Rerun detection table; flag remaining instances
Benchmark score below 3.0 (Skill 6)	Mandatory flag; recommend re-invoking Skills 3-5 for the failing post
MCP tools not loading (Skill 8)	Fall back to Option B2 (direct API) or Option A (manual)
LinkedIn API 401 (Skill 8)	Access token expired; re-run OAuth flow
LinkedIn API 403 (Skill 8)	Missing `w_member_social` scope; re-authorize

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8. Security Design

Concern	Mitigation
LinkedIn API credentials	Stored in `~/.claude/settings.json` env vars only — never in skill files, archive files, or git repo
OAuth access tokens	60-day expiry; stored locally on user's machine
Personal anecdotes in archives	Archive files should not be committed to public repos without review

`.gitignore`	Configured to block `.env`, credential files

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9. Known Limitations & Design Trade-offs

Limitation	Root Cause	Mitigation / Future Fix
Voice Refiner optimized for Manager/Director only	One-size-fits-all detection table	Add audience-specific voice profiles as a parameter
Week 5 (Vision) consistently underperforms	No access to real-time industry data	Add a "trends research" sub-step before Skill 3 for Week 5
Single HITL rater bias	Only one human evaluator	Add peer review step for inter-rater reliability
No A/B testing on actual LinkedIn engagement	No LinkedIn Analytics API access	Manual engagement capture after 24-48 hours
MCP tools unreliable in Claude Code	MCP server initialization issues	Direct API fallback (Option B2) always available
Sequential pipeline is slower than parallel	Design choice for narrative coherence	Acceptable trade-off; pipeline runs in <10 mins for full series

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10. File & Directory Structure

```
linkedin-thought-leadership-agent/
├── README.md                          # Project overview
├── README.pdf                         # Human-readable PDF
├── TUTORIAL_WRITEUP.md                # Assignment submission
├── TUTORIAL_WRITEUP.pdf               # PDF version
├── DESIGN_DOCUMENT.md                 # This file
├── DESIGN_DOCUMENT.pdf                # PDF version
├── USER_GUIDE.md                      # How-to guide
├── USER_GUIDE.pdf                     # PDF version
├── CLAUDE.md                          # Session memory (not for submission)
├── .gitignore                         # Blocks credentials
├── skills/
│   ├── skill_0_master_orchestrator.md
│   ├── skill_1_intent_discovery.md
│   ├── skill_2_content_strategist.md
│   ├── skill_3_draft_architect.md
│   ├── skill_4_voice_tone_refiner.md
│   ├── skill_5_engagement_optimizer.md
│   ├── skill_6_quality_reviewer.md
│   ├── skill_7_archive_manager.md
│   └── skill_8_poster_reviewer.md
├── benchmark/
│   └── BENCHMARK_APPENDIX.md          # Full benchmark with 4 test cases
├── outputs/
```

```
│   ├── Q1_2026_SQL_Performance_Series.md
│   ├── 2026_Roadmap_Plan.md
│   └── test_run_AI_Dev_Tool_Series.md  # Live test run (Feb 2026)
├── diagrams/
│   ├── architecture_infographic.html  # A4 landscape solution overview
│   ├── week1_ai_usage_gap.html
│   ├── week2_ai_maturity_ladder.html
│   ├── week3_testing_before_after.html
│   ├── week4_five_moves.html
│   ├── week5_2024_vs_2027.html
│   └── week6_series_journey.html
└── archive/
    └── AI_Chatbot_to_Dev_Tool_2026-02-11.md  # Full archived session
```