

AMIE MVP Features List

System: Academic Manuscript Intelligence Evaluator (AMIE)

Version: MVP

Purpose: To define the foundational capabilities required for AMIE to detect potential patentable content in academic manuscripts using a modular, agentic AI system.

1 • System Objective

Demonstrate that an AI-driven agentic workflow can detect invention signals in research manuscripts early enough to support timely patent filings, while avoiding false positives that would burden tech transfer teams.

2 • Core Features (Required for MVP)

2.1 Manuscript Ingestion & Preprocessing

- Accept manuscripts in PDF, DOCX, or plain text.
- Extract metadata: title, authors, timestamp, affiliations.
- Assign traceable run IDs.

2.2 Agentic Pipeline Execution

- Orchestration Agent (OA): Central controller that coordinates all agents.
- Assessment Planner Agent (APA): Generates YAML-based interrogation plan.
- Classifier AA: Quickly scores manuscript for IP-bearing potential.
- Patentability AA: Applies prompts for §101 eligibility, §102 novelty, §103 obviousness, and enablement.
- Prior-Art AA: Performs semantic/keyword search for closest known inventions.
- Strategic Insight AA: (optional) Assesses commercial and sponsor relevance.
- Integration Agent (IA): Merges all outputs into assessment.json.
- Synthesis Agent (SA): Generates faculty- or analyst-facing reports in Markdown and optional PDF.

2.3 User Engagement Modes

- Automation Mode:
 - Scrapes preprint servers like arXiv for new OSU-authored manuscripts.
 - Automatically triggers AMIE pipeline and emails report to IP managers.
- On-Demand Mode:
 - Faculty uploads manuscript via chat interface (UIA).
 - AMIE analyzes and delivers report in chat or by email.

2.4 Metrics & Validation

- Logs classifier decisions, scores, timestamps.
 - Monthly polling of tech-transfer data for outcome linkage.
 - Dashboard: precision, recall, F1, and latency metrics.
 - Blind-spot sampling: 5% of unflagged manuscripts manually checked.
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3 • Optional Enhancements (Not Required for MVP)

- Claim Drafting Agent to generate provisional claims.
 - Enablement AA for §112 compliance checks.
 - Grant/sponsor relevance analysis.
 - Disclosure initiation button for faculty.
 - Schema versioning support.
 - Prior art caching for efficiency.
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4 • Outputs

- assessment.json with patentability signals.
- Markdown/PDF reports with summary, claim-like bullets, prior art table.
- Digest emails (automation).
- Real-time report via chat (on-demand).

5 · Non-Goals (Explicit Exclusions)

- No manuscript editing or peer review simulation.
- No mobile or offline interfaces.
- No public sharing or open repositories.
- No integrated patent docketing system.
- No full analytics dashboard (beyond validation metrics).

6 · Agent Types (from Terminology Guide)

- UIA: Chat interface agent
 - OA: Workflow manager
 - APA: Planner that produces interrogation plan
 - AA: Agents performing classification, patentability, prior art, enablement
 - IA: Merges and normalizes outputs
 - SA: Generates final reports
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