

GenAI Agent Architectures for Enhanced Educational Workflows

Ir Prof Alan Lam, JP

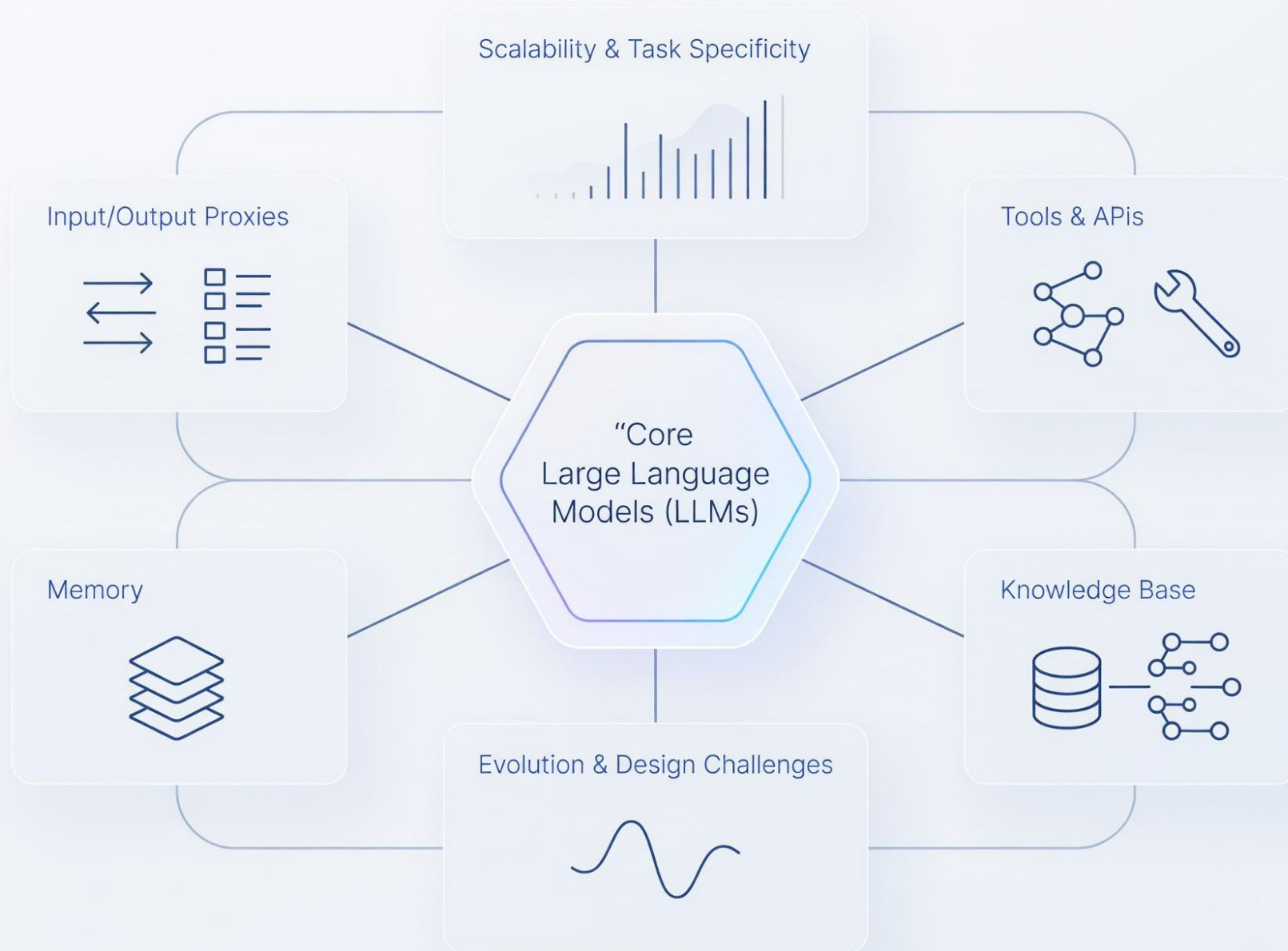


Principles of GenAI Agent Design

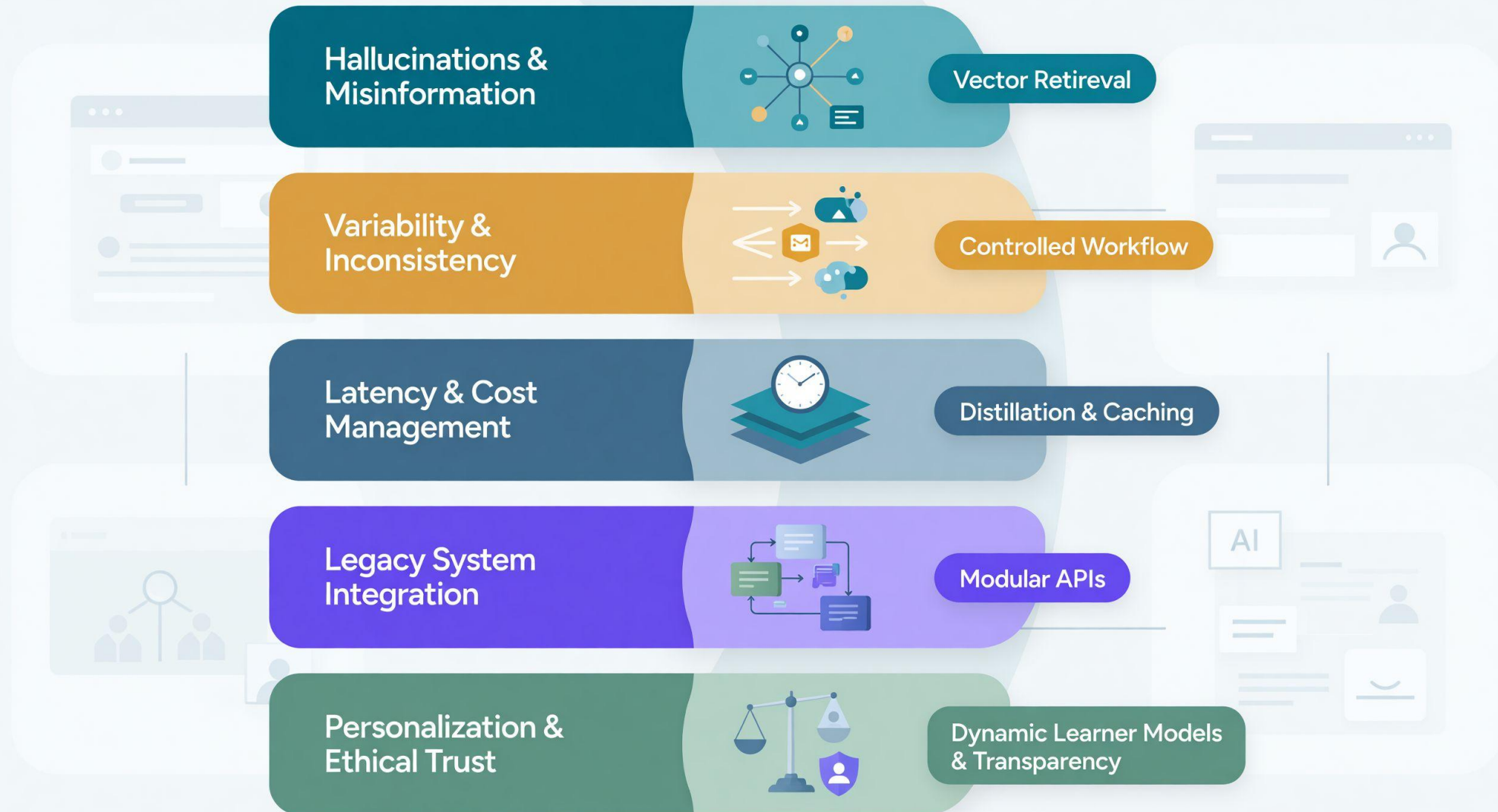
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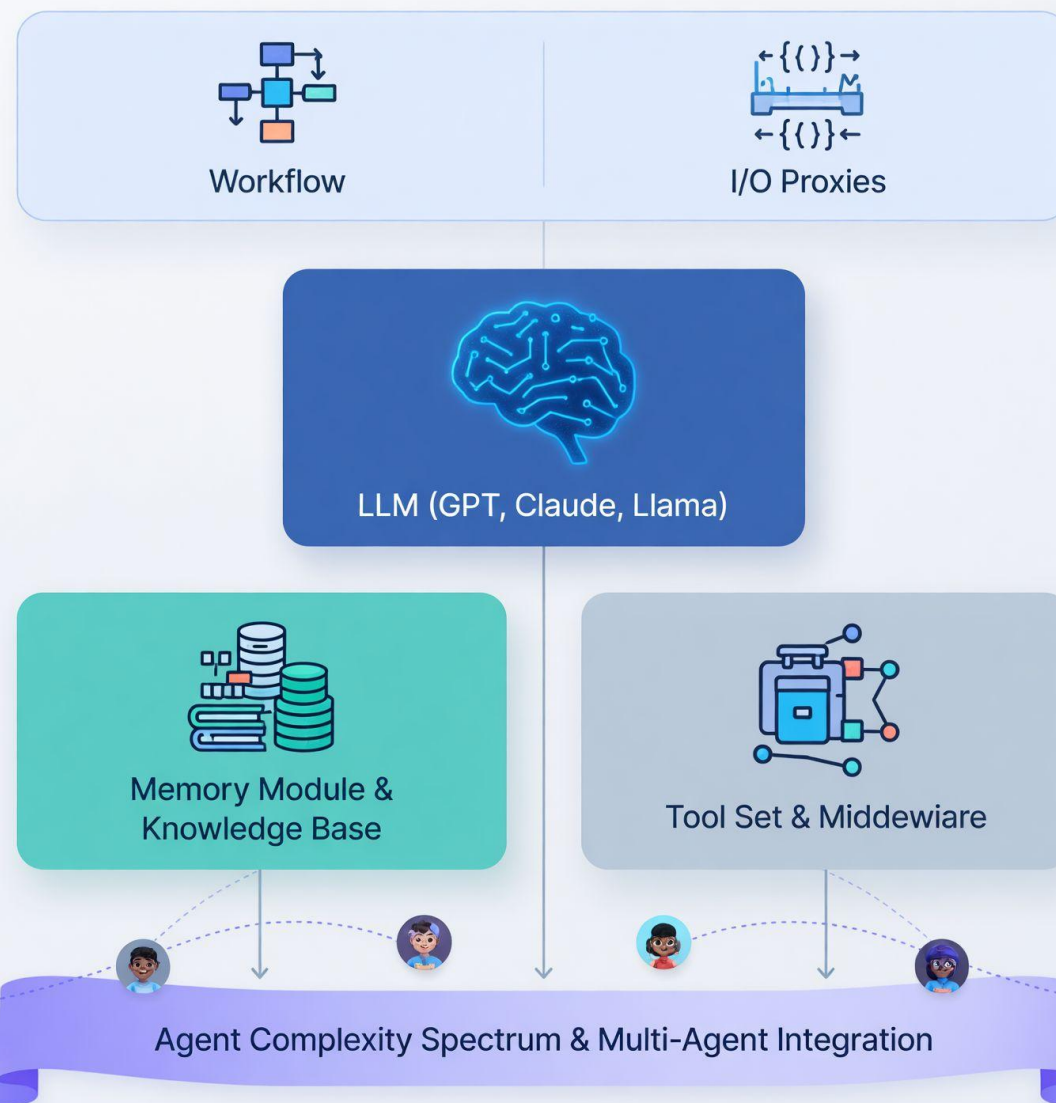
Fundamental Concepts of GenAI Agents



Challenges and Solutions in Agent Design



Agent Architecture and Components



Future Trends in GenAI Agent Design

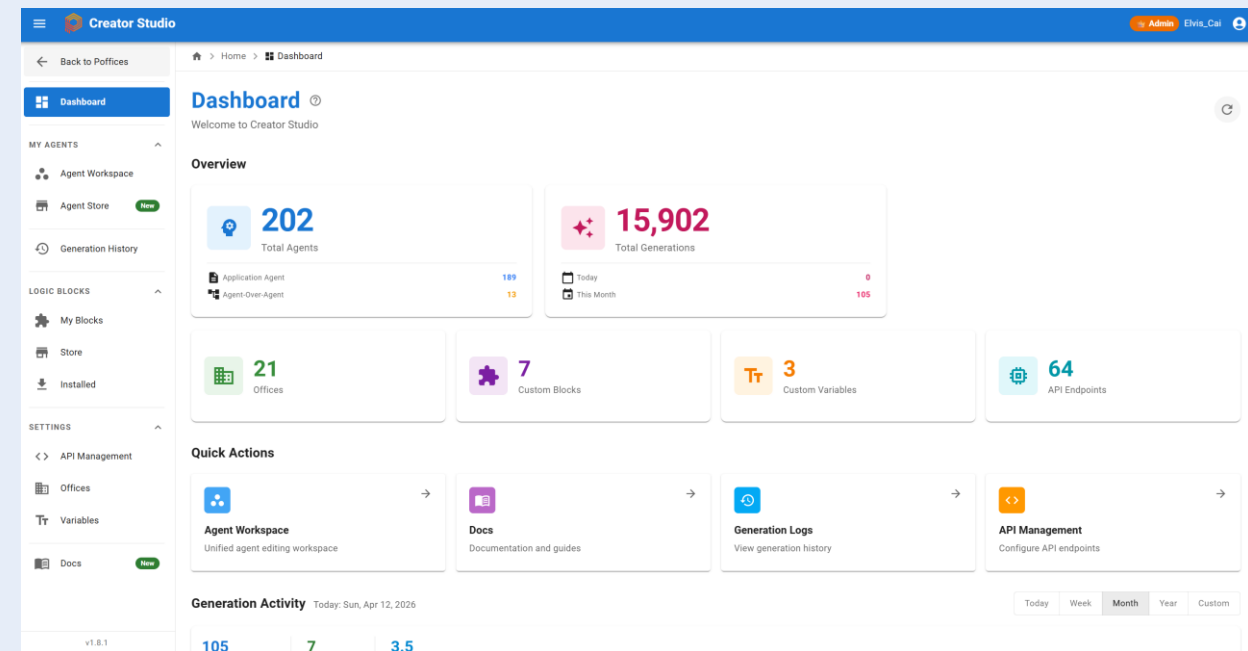


Review Agent's Results in Creator Studio

- When Poffices Agent execute one task, Creator Studio will record the data of all steps in each milestone.
- The execution steps include:
 - Each block's input/output
 - Variable replacements that occurred
 - LLM calls and responses
 - Logic branch decisions (which path was taken)
 - Loop iterations
 - Errors and skipped blocks

Why check? → Debugging, quality assurance, understanding agent behaviour

Dashboard of Creator Studio to show the overview of the Poffices Platform



Generation History Record

Dashboard of
the Generation
History

In the Variables page, there are many prompt variables including system variables and different domain specific prompt variables based on different Prompting techniques such as role, instruction, step, example and other advanced prompting variables.

Select a
Generation
Record

Creator Studio

Admin Alan Lam

Back to Poffices

Dashboard

MY AGENTS

Agent Workspace

Agent Store

Generation History

LOGIC BLOCKS

My Blocks

Store

Installed

API Builder

SETTINGS

API Management

Offices

Variables

Analytics > Generation History

Generation History

View and manage content generation topics and results

59,012 Total Generations

25 Current Page Results

Search & Filter

Search by query text

Filter by Username

Filter by Job ID

CLEAR FILTERS

Results: 25 Page 1 of 2361

ID	Job ID	Query	User	Language	Agent Key	Created At	Actions
#229461	6a406b6edda6c	電飯煲豬手有乜嘢簡易煮法？可否罐頭茄汁豆...	Joe Wong (joe.try@sengital.com)	zh-hant	hk-g	2026/6/28 上午8:31:42	
#229453	6a406ab768a6a	Kmart 小朋友單車好嗎？好平呢	Joe Wong (joe.try@sengital.com)	zh-hant	hk-g	2026/6/28 上午8:28:39	
#229438	6a4055f38c862	消息 息 (Test-02)	Mouse Ho (Mouse)	zh-hant	daily-highlight	2026/6/28 上午7:00:04	

Generation
History to
show the
details logs of
generation
content

Generation History Record

URL: add /creator-studio/content-generation/{JOB-ID}
Eg. <https://{LOGIN-URL}/creator-studio/content-generation/{JOB-ID}>



Generation History to show the details logs of generation content

Creator Studio

Admin Alan Lam

Back to Poffices

Dashboard

MY AGENTS

Agent Workspace

Agent Store

Generation History

LOGIC BLOCKS

My Blocks

Store

Installed

API Builder

SETTINGS

API Management

Offices

Variables

Analytics > Generation History > 6a3f688a3b80b

BACK TO LIST VIEW RESULT

Generation Topic Details

Job ID: 6a3f688a3b80b

Basic Information

ID #229380

User Demo (InnoEx2026)

Language en

Agent Key english-primary-teaching-plan

Job ID 6a3f688a3b80b

Timeline & Performance

Created At 2026/6/27 下午2:07:06

Updated At 2026/6/27 下午2:08:20

Preparation Time 1.75s

Completion Time 77.95s

Total Time 79.71 seconds

Query

Teaching plan for Primary School Grade 3 Student about English subject in details. The topic is 'Simple Past Tense'. 4 lessons of 30 minutes for each lessons

Document Name

Teaching Plan for Primary School Grade 3 Student about English Subject in Details: Simple Past Tense

Dialog ID 8

Agent Manager ID N/A

Last Job ID N/A

Origin Job ID N/A

Generation History Record

User Query
input by user

User Location, Date
and Time info

Document Name
generated by the input
layer of the agent



Generation
History to
show the
details logs of
generation
content

Creator Studio

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Back to Poffices

Dashboard

MY AGENTS

Agent Workspace

Agent Store

Generation History

LOGIC BLOCKS

My Blocks

Store

Installed

API Builder

SETTINGS

API Management

Offices

Variables

Analytics > Generation History > 6a3f688a3b80b

Query

Teaching plan for Primary School Grade 3 Student about English subject in details. The topic is 'Simple Past Tense'. 4 lessons of 30 minutes for each lessons

Document Name

Teaching Plan for Primary School Grade 3 Student about English Subject in Details: Simple Past Tense

Dialog ID

8

Agent Manager ID

N/A

Last Job ID

N/A

Origin Job ID

N/A

User Location Info

```
{
  "ip": "14.0.175.166",
  "network": "14.0.175.0/24",
  "version": "IPv4",
  "city": "Yuen Long",
  "region": "Yuen Long",
  "region_code": "NYL",
  "country": "HK",
  "country_name": "Hong Kong",
  "country_code": "HK",
  "country_code_iso3": "HKG",
  "country_capital": "Hong Kong",
  "country_tld": ".hk",
  "continent_code": "AS",
  "in_eu": false,
  "postal": null,
  "latitude": 22.44518,
  "longitude": 114.02621,
  "timezone": "Asia/Hong_Kong",
  "utc_offset": "+0800",
  "country_calling_code": "+852",
  "currency": "HKD",
  "currency_name": "Dollar",
}
```

Generation History Record

Performance
Summary

Visible Timeline
Health Check

Summary of the
Backend Statistics

Creator Studio

Admin Alan Lam

Back to Poffices

Dashboard

MY AGENTS

Agent Workspace

Agent Store

Generation History

LOGIC BLOCKS

My Blocks

Store

Installed

API Builder

SETTINGS

API Management

Offices

Variables

Analytics > Generation History > 6a3f688a3b80b

Performance Summary

Visible Timeline Health

Calculated from all visible steps across main and nested agents

522

TOTAL STEPS

465

COMPLETED

0

FAILED

57

SKIPPED

23.3s

SLOWEST STEP

SKIPPED STEPS DETECTED

57 skipped steps

SLOWEST VISIBLE STEP

Loop Main Agent · Stage 9 · Layer #10

23.3s across all agents

Root Topic Backend Stats

Backend execution statistics for the root topic only (excludes nested agents)

1m 22s

TOTAL DURATION

18

STAGES

18

LAYERS

4.6s

AVG LAYER

1.1x

PARALLELISM

N/A - 23.3s

RANGE

ROOT TOPIC SLOWEST LAYER

loop Stage 9 · Layer #10

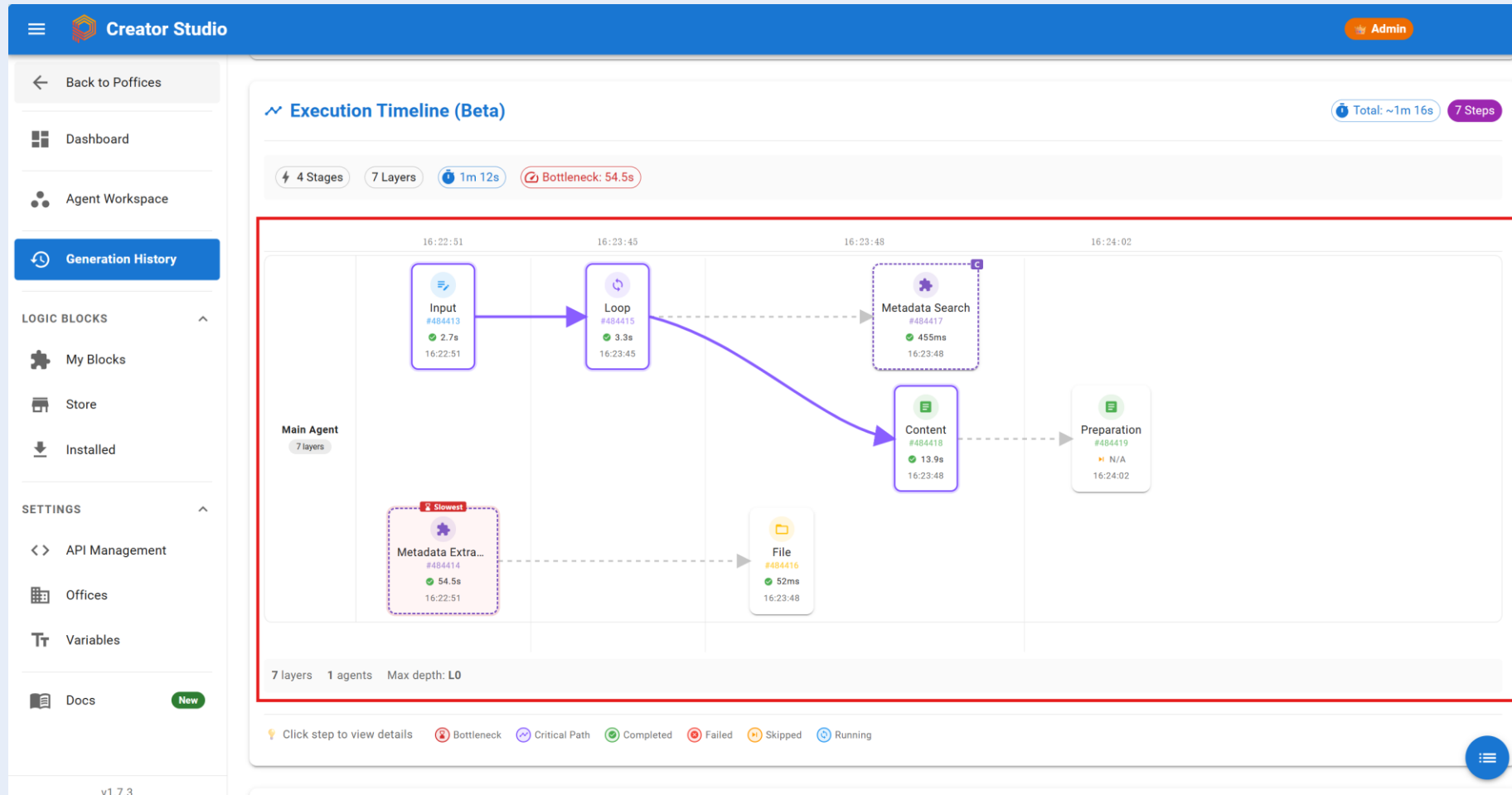
23.3s root topic only



Generation
History to
show the
details logs of
generation
content

Generation History Record

- Understanding the Timeline View
- The Timeline shows block-by-block execution:



Each block in the timeline shows:

- **Status icon**
- **Execution time**
- **Click to expand for details**

Generation History Record

- Inspecting a Block's Details
- Click on any block in the timeline to see

Generation Details #425605
Step 7 - Merge (content)

Input | **Result**

AIoT Development Literature Survey

Introduction
The integration of Artificial Intelligence of Things (AIoT) technologies has emerged as a transformative force across industries, reshaping how systems interact, process data, and deliver services. As a convergence of artificial intelligence (AI) and the Internet of Things (IoT), AIoT enables intelligent automation, real-time decision-making, and enhanced user experiences through advanced analytics and machine learning capabilities. This literature survey aims to explore the current state of AIoT development, focusing on its applications, challenges, and future directions. By synthesizing findings from recent research, industry reports, and case studies, this document provides a structured overview of AIoT's role in modern technological ecosystems.

The rapid evolution of AIoT has been driven by advancements in edge computing, cloud integration, and the proliferation of connected devices. However, its adoption is not without hurdles, including ethical considerations, security vulnerabilities, and interoperability issues. This survey highlights key studies that address these challenges while emphasizing the potential of AIoT to revolutionize sectors such as healthcare, agriculture, and smart cities. By examining existing literature, this document identifies gaps in current research and outlines opportunities for further innovation.

Literature Review
The field of AIoT development has attracted significant academic and industrial interest, with researchers exploring its implications for sustainability, accessibility, and operational efficiency. A systematic review of recent literature reveals several critical themes, including the integration of AIoT in assistive technologies, its role in smart agriculture, and the challenges associated with its implementation.

One notable study focuses on AIoT's application in assistive technology, highlighting its potential to improve the quality of life for individuals with disabilities [2]. According to the World Health Organization, approximately 15% of the global population has some form of disability, underscoring the need for inclusive technological

PREVIOUS STEP | NEXT STEP | CLOSE

00:00:00 | 23:59:50

Content #425605
✓ 21.0s
23:59:29

Preparation #425606
N/A
23:59:50

Step 7: Content ~21.0s

INPUT | **OUTPUT**

AIoT Development Literature S
Introduction
The integration of Artificial I

AIoT Development Literature S
Introduction
The integration of Artificial I

View Fullscreen | View in Result Table

Practical Exercise

1. Keep this note confidential. You must NOT share to others or release to public.
2. Login Poffices.ai and then enter Creator Studio. Then click Generation History, find your task record.
3. Click to view your task(s) done by your newly created agent.
4. Compare the flow of generation of the outcomes of these tasks
5. Discuss your findings

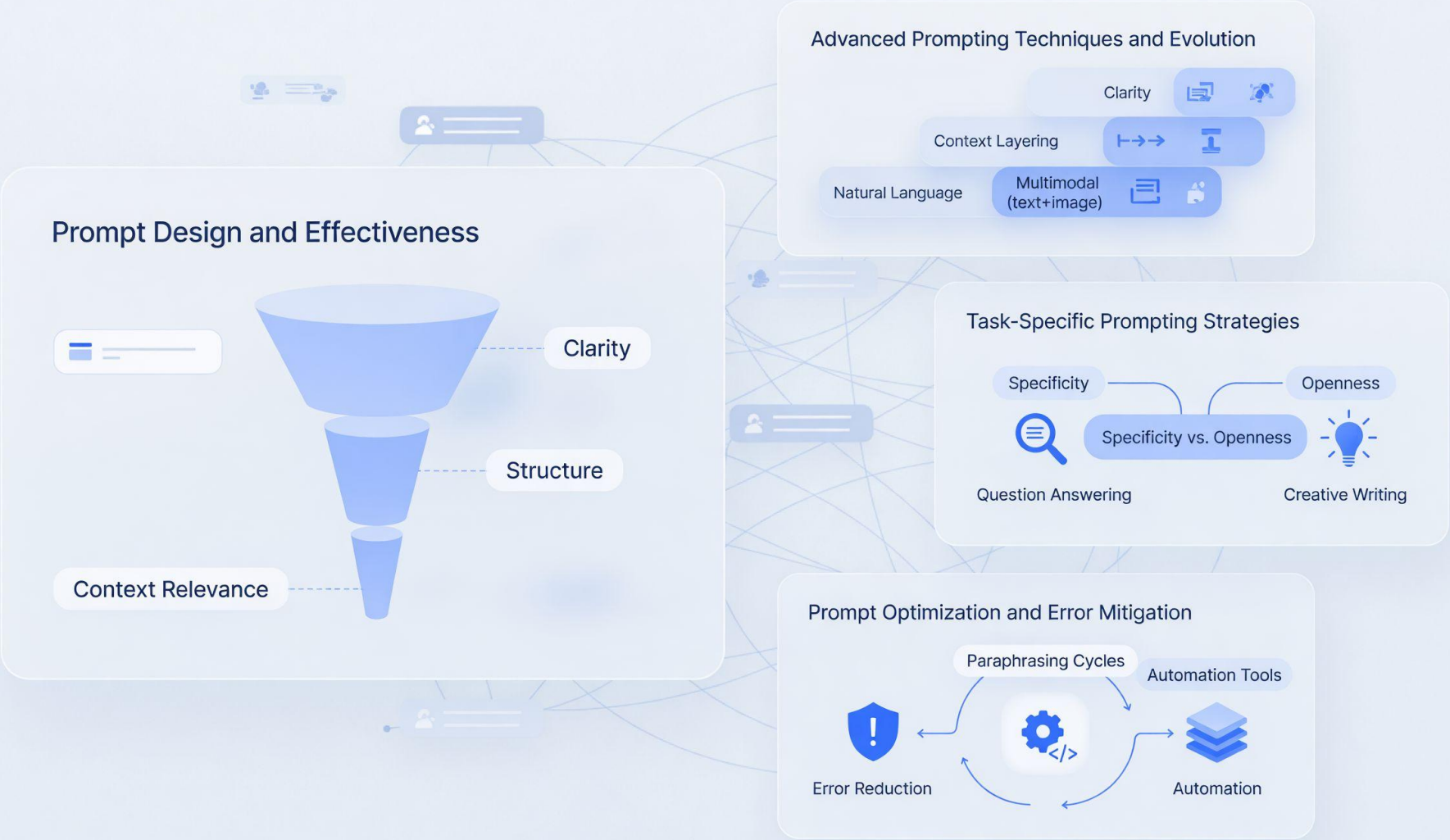


- (1) Click **Agent Master** to choose your newly created agent

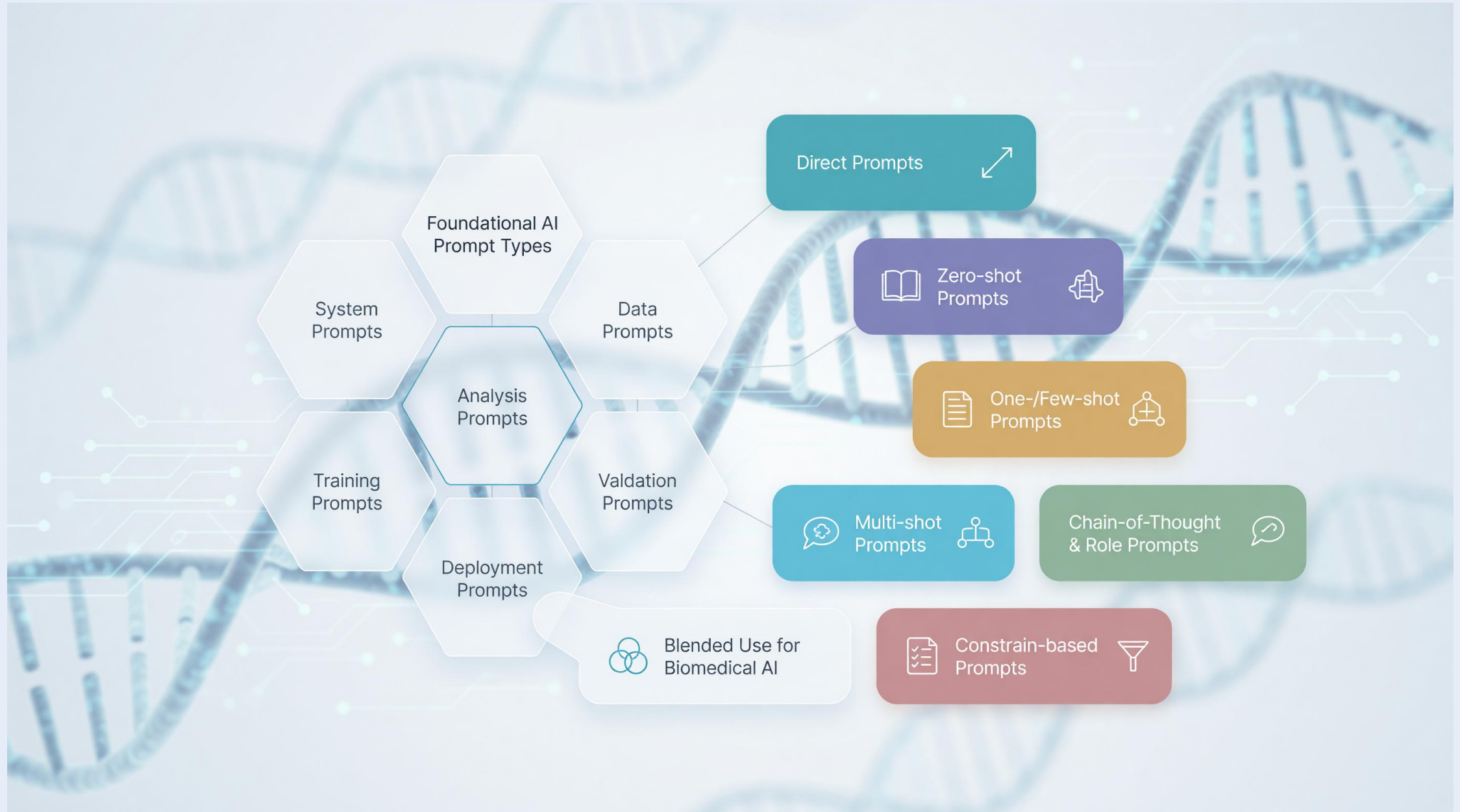
Advanced Prompting Technique for GenAI Agent

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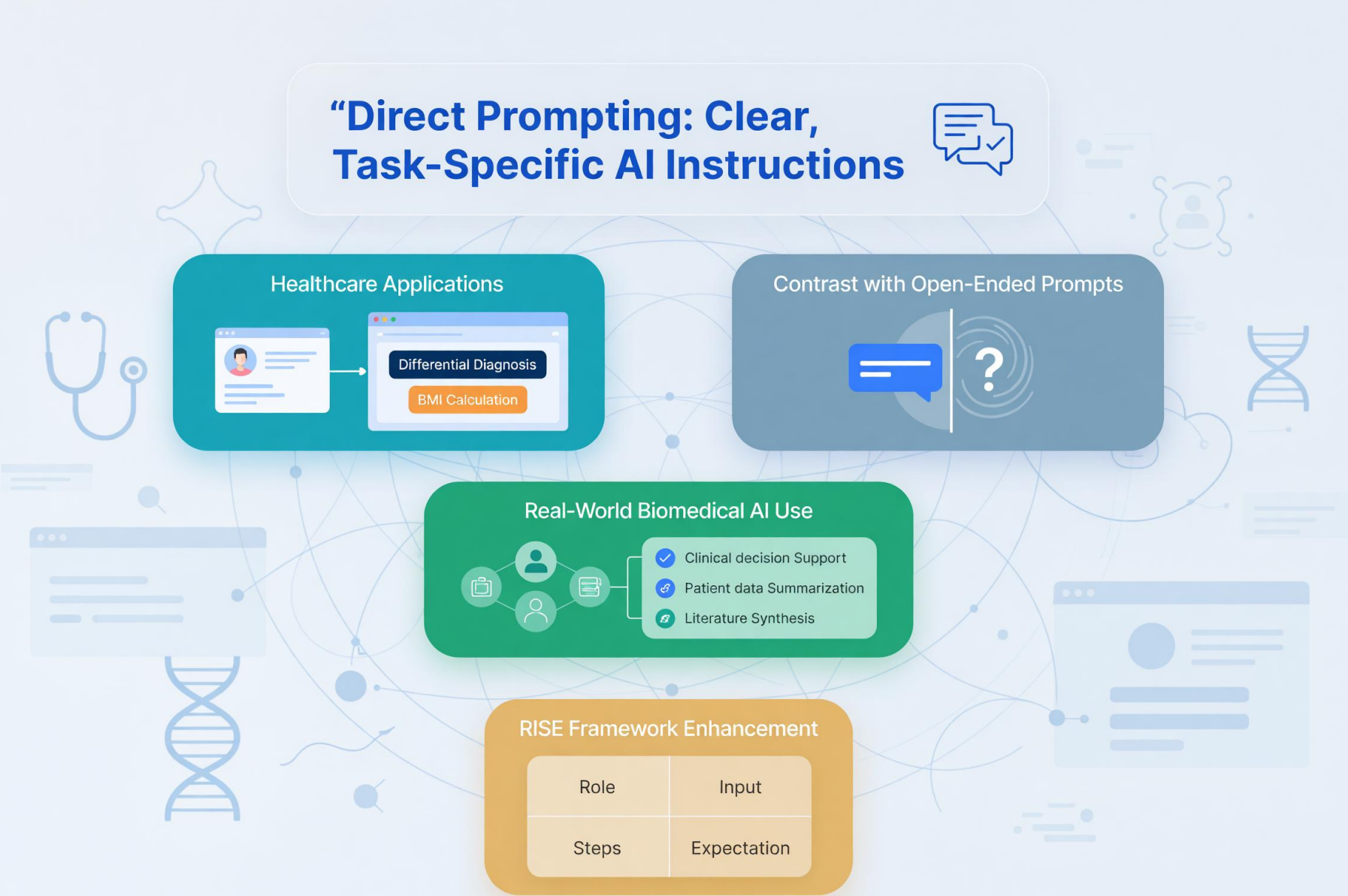




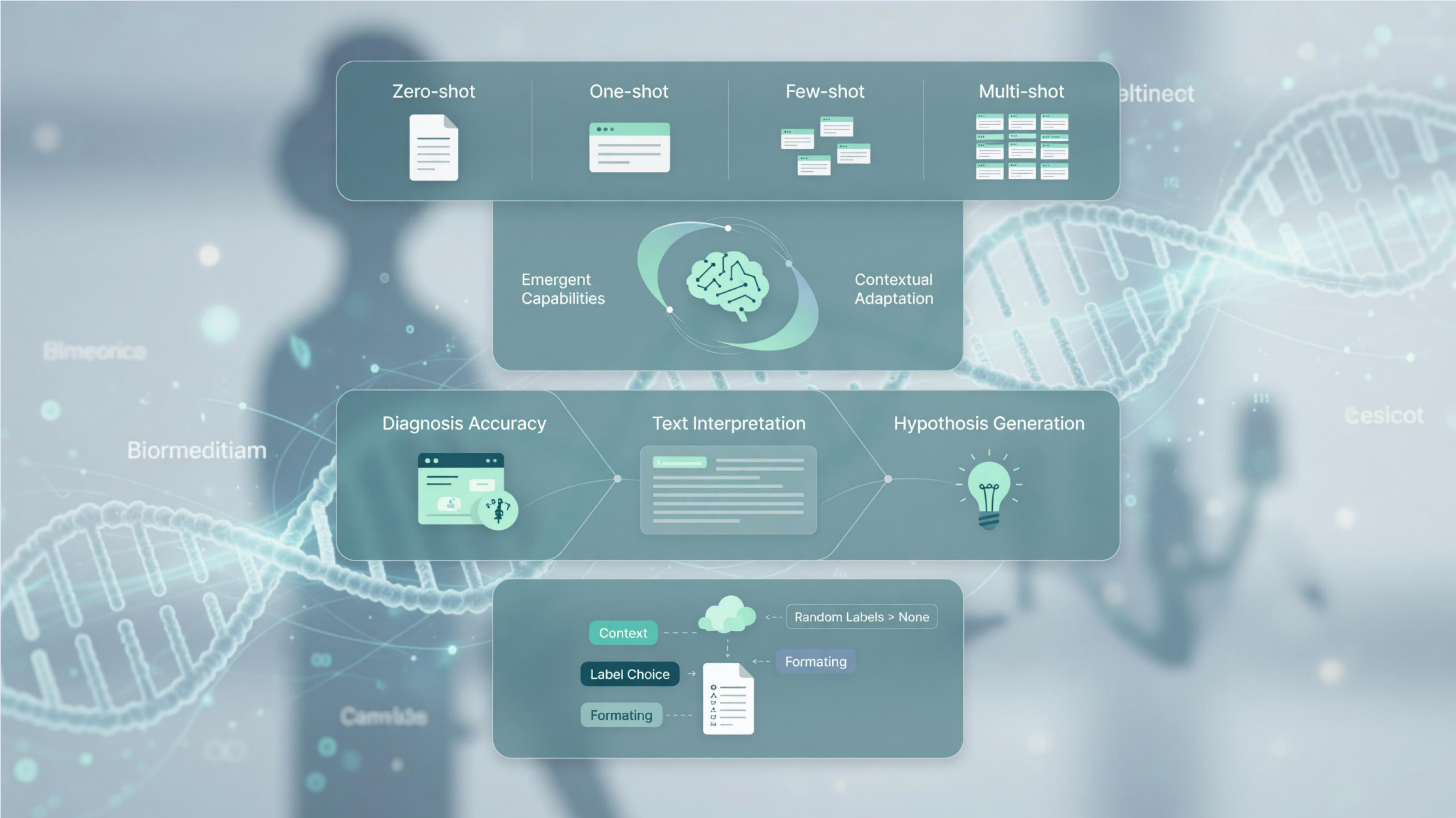
Fundamentals of Prompt Types



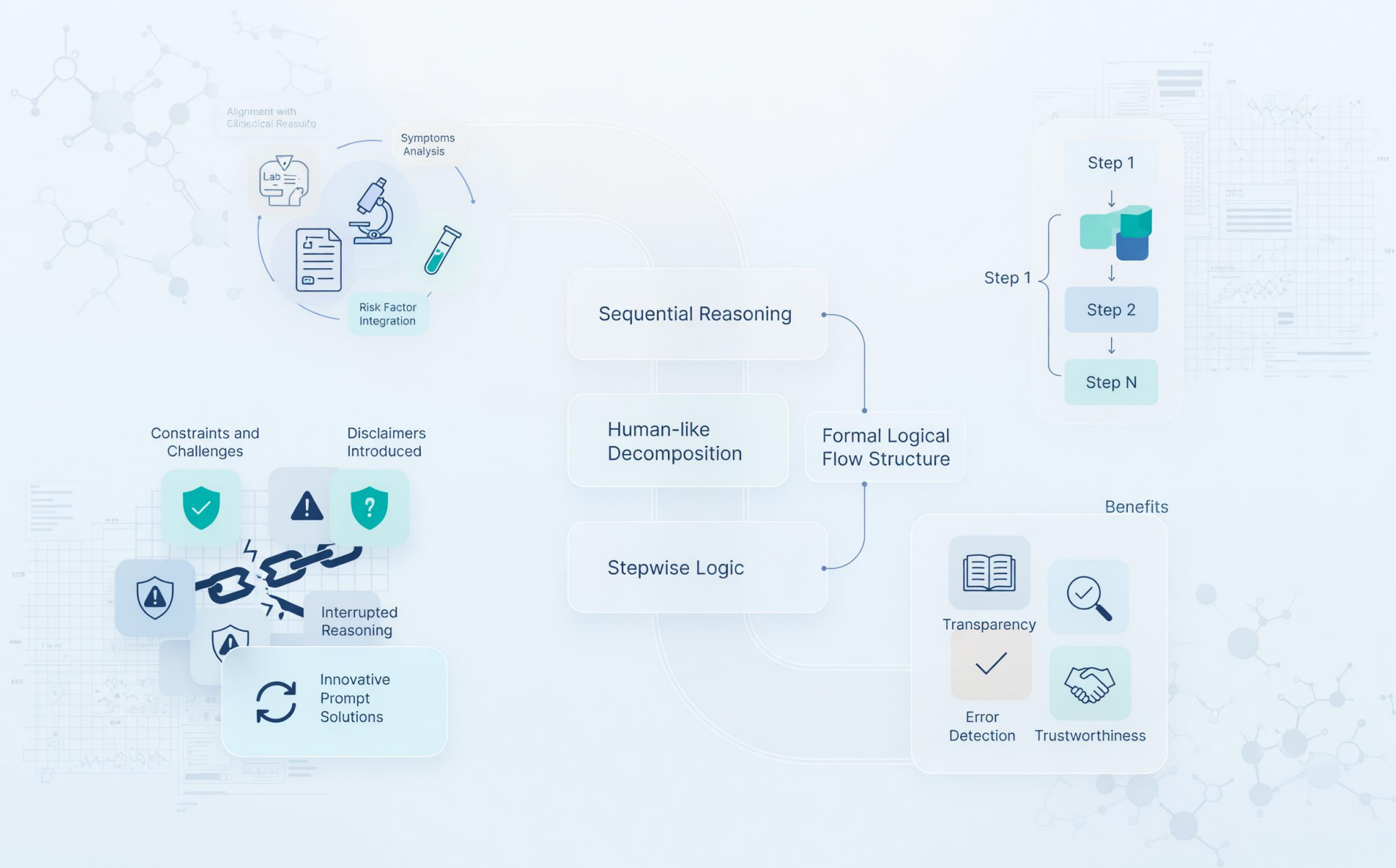
Concept of Direct Prompt



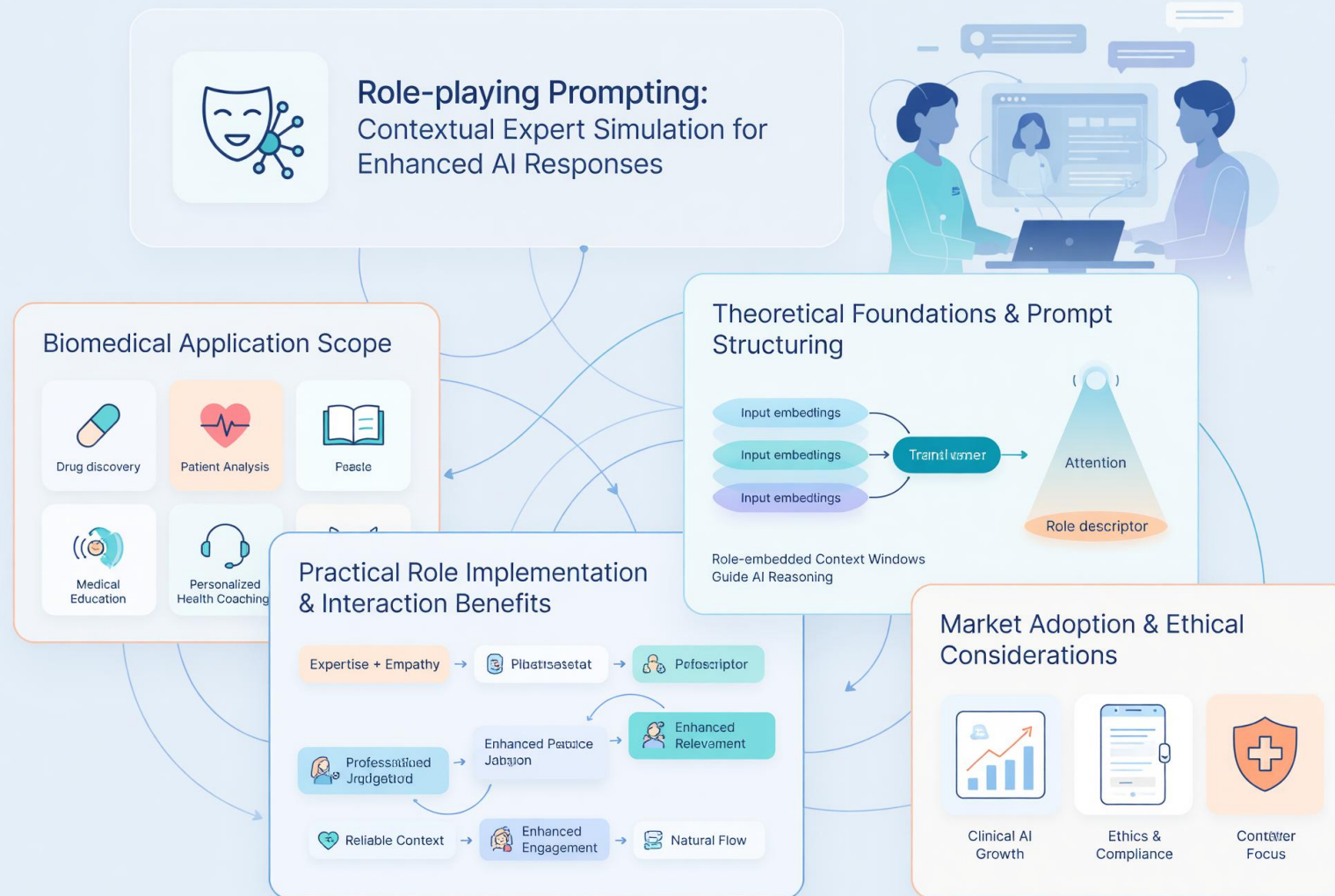
Overview of Shot-based Prompts



Principle of Chain-of-Thought Prompts



Definition and Scope of Role-playing Prompting



Concept of Constraint-based Prompting



Comparison with Other Prompt Types



Agent Workplace: Agent Development Platform

Official Agents are included in the Poffices platform. Each office includes different agents based on expertise

In Overview page for each agent, there are three settings: 1) Basic Settings 2) Variables and 3) Documentation. In the Basic Setting of your own agent under My office which is user's own office for the agent created by user

Agent Workplace to create, modify agent settings

The screenshot displays the 'Creator Studio' interface. On the left, a sidebar contains navigation options: 'Back to Poffices', 'Dashboard', 'MY AGENTS' (with 'Agent Workspace' selected), 'Agent Store', 'Generation History', 'LOGIC BLOCKS' (with 'My Blocks', 'Store', 'Installed', and 'API Builder'), 'Variables', and 'Docs'. The main area is titled 'My Agents > Agent Workspace' and shows a list of 120 agents. A red box highlights the 'General Office' section, which lists various offices with their respective agent counts: General Office (3), Business Office (8), Strategy Office (15), Research Office (5), Project Office (5), Sales & Marketing Office (10), Education and Training Office (5), HR Office (10), Financial office (5), PR Office (5), Company Secretary Office (20), and Personal Assistant Office (15). A red arrow points from the 'General Office' section to the 'Basic Settings' tab in the 'Overview' page. The 'Basic Settings' tab is active, showing fields for 'Classification' (Office: My Office, Order: 0, Level: Level 1, Document Type: No Document Type, Agent Type: Application Agent) and 'Agent Information' (Name: General, Key: hk-g, Keywords: general idea, docs / info-like, explanation, overview, URL, Icon URL, Token). A red arrow also points from the 'Basic Settings' tab to the 'Agent Information' section.

Agent Workplace: Agent Development Platform

In the Variables page, there are many prompt variables including system variables and different domain specific prompt variables based on different Prompting techniques such as role, instruction, step, example and other advanced prompting variables.

Agent Workplace to create, modify agent settings

Creator Studio

Alan CityUEE

Back to Poffices

Dashboard

MY AGENTS

Agent Workspace

Agent Store

Generation History

LOGIC BLOCKS

My Blocks

Store

Installed

API Builder

Variables

Docs

My Agents

Search agents...

Compact

120 agents

General Office 3

Business Office 8

Strategy Office 15

Research Office 5

Project Office 5

Sales & Marketing Office 10

Education and Training Office 5

HR Office 10

Financial office 5

PR Office 5

Company Secretary Office 20

Personal Assistant Office 15

General

hk-g

Official

Overview

Block Diagram

Test

Basic Settings

Variables 13/18

Documentation

Configure the variables for this agent

72% Complete

Prompt Variables

System Variables

Agent Variable 77

Agent Background 52

Agent Role 28

Agent Knowledge

Agent Data

Agent Instruction 13

Title Generate 20

Content Generate 438

Image Rules 705

Reference Rules 78

System Variables

Agent Variable (agent_variable)

Set 'User_Query' as {query}

Set 'document_name' as {document_name}

Set 'Web Keyword01 Content' as {web_evaluation(1)}

Set 'DB Search Evaluation' as {layout_name_db-search_output}

Set 'Document Language' as {document_language}

Set 'DOCUMENT_TYPE' as {document_type}

Set 'Document Structure' as {document_structure}

Set 'Master Document Structure' as {document_structure_current}

Set 'Ultimate Goal' as {ultimate_goal}

Agent Workplace: Agent Development Platform

In the Block Diagram page, the agent structure has been shown in the block diagram. Each block are connected. The setting of the block are shown in Inspector in the right side. The Block setting includes the prompt setting and prompt variables for LLM input

Agent Workplace to create, modify agent settings

The screenshot displays the 'Creator Studio' interface for 'Agent Workplace'. The left sidebar contains navigation options: 'Back to Poffices', 'Dashboard', 'MY AGENTS' (with 'Agent Workspace' highlighted), 'Agent Store', 'Generation History', 'LOGIC BLOCKS' (with 'My Blocks', 'Store', 'Installed', 'API Builder', 'Variables', and 'Docs'), and 'v1.18.1' at the bottom. The main area shows 'My Agents > Agent Workspace' with a search bar and a list of 120 agents, including 'General Office', 'Business Office', 'Strategy Office', 'Research Office', 'Project Office', 'Sales & Marketing Office', 'Education and Training Office', 'HR Office', 'Financial Office', 'PR Office', 'Company Secretary Office', and 'Personal Assistant Office'. The 'General' tab for 'hk-g' is active, showing 'Overview', 'Block Diagram', and 'Test' options. The 'Block Diagram' panel displays a complex flowchart of interconnected blocks. The 'Inspector' panel on the right allows editing selected nodes, with 'QUICK TIPS' and 'KEYBOARD SHORTCUTS' (Deselect all: Esc, Delete selected item(s): Delete, Multi-select: Ctrl + Click).

Agent Workplace: Agent Development Platform

Zoom in the Block diagram, Clicking the block to show the setting of the block. For example, the input layer block is for LLM function. The setting of the block is the prompt setting where show the prompt input to LLM with prompt variables such as agent_background.

Agent Workplace to create, modify agent settings

Creator Studio

Alan CityUEE

Back to Poffices

Dashboard

MY AGENTS

Agent Workspace

Agent Store

Generation History

LOGIC BLOCKS

My Blocks

Store

Installed

API Builder

Variables

Docs

My Agents

120 agents

General Office 3

Business Office 8

Strategy Office 15

Research Office 5

Project Office 5

Sales & Marketing Office 10

Education and Training Office 5

HR Office 10

Financial office 5

PR Office 5

Company Secretary Office 20

Personal Assistant Office 15

General

hk-g

Overview

Block Diagram

Test

Language English

Blocks

Input Blocks (7)

Input Analysis

Web Search

DB Search

File Search

Web Crawler

Web Scraper

Knowledge DB

Processing Blocks (5)

Ranking

Data Integration

Input Layer (id: 4)

input-layer

API gpt-4.1-mini

PROMPT

Given the information of the parameters as following: {Input_variable}

BACKGROUND

{agent_background}

ROLE

{agent_role}

INSTRUCTION

{Input_instruction}

Input Layer (id: 4)

Input Analysis

Instance Name input-layer

API gpt-4.1-mini

Prompt Fixed height with scroll Expand

Given the information of the parameters as following: {Input_variable}

BACKGROUND

{agent_background}

ROLE

Practical Exercise

1. Keep this note confidential. You must NOT share to others or release to public.
2. Login Creator Studio
3. Follow the above procedure to modify the system prompt for better enhancement using the prompt engineering technique
4. Test the newly created agent with the modified system prompt or new input prompt to generate new document.
5. Compare the outcome with previous result.

Enhance the system prompt to upgrade to domain specific agent

(1) Click **Agent Master** to choose your newly created agent

(2) Enter your input with new prompt, check click generation.

The screenshot displays the 'Creator Studio' interface for Poffices.AI. The top navigation bar includes 'Back to Poffices', 'My Agents', and 'Agent Workspace'. The left sidebar lists various components like 'Dashboard', 'Agent Store', 'Generation History', 'Logic Blocks', 'My Blocks', 'Store', 'Installed', 'API Builder', 'Variables', and 'Docs'. The main area shows the configuration for an agent named 'General Office'. The 'Variables' tab is selected, showing a list of prompt variables on the left and their configurations on the right. The variables include 'Agent Variable', 'Agent Background', 'Agent Role', 'Agent Knowledge', 'Agent Data', 'Agent Instruction', 'Title Generate', 'Content Generate', 'Image Rules', and 'Reference Rules'. The 'Agent Knowledge' section is expanded, showing 'System Variables' and 'Agent Knowledge (agent_knowledge)'. The 'Agent Data' section is also expanded, showing 'Agent Data (agent_data)' and 'Agent Instruction (agent_instruction)'. The 'Agent Instruction' section contains a prompt: 'Generate the complete document content directly based on the 'document_type' following these steps:'. The bottom of the interface features a large banner for '1st Anniversary Poffices.AI' and a section titled 'AI Document Generator' with a text input field and buttons for 'Private', 'Agent Master', and 'Digital Assets'. A red arrow points from the 'Agent Master' button to the 'Agent Master' button in the 'Agent Master' section.

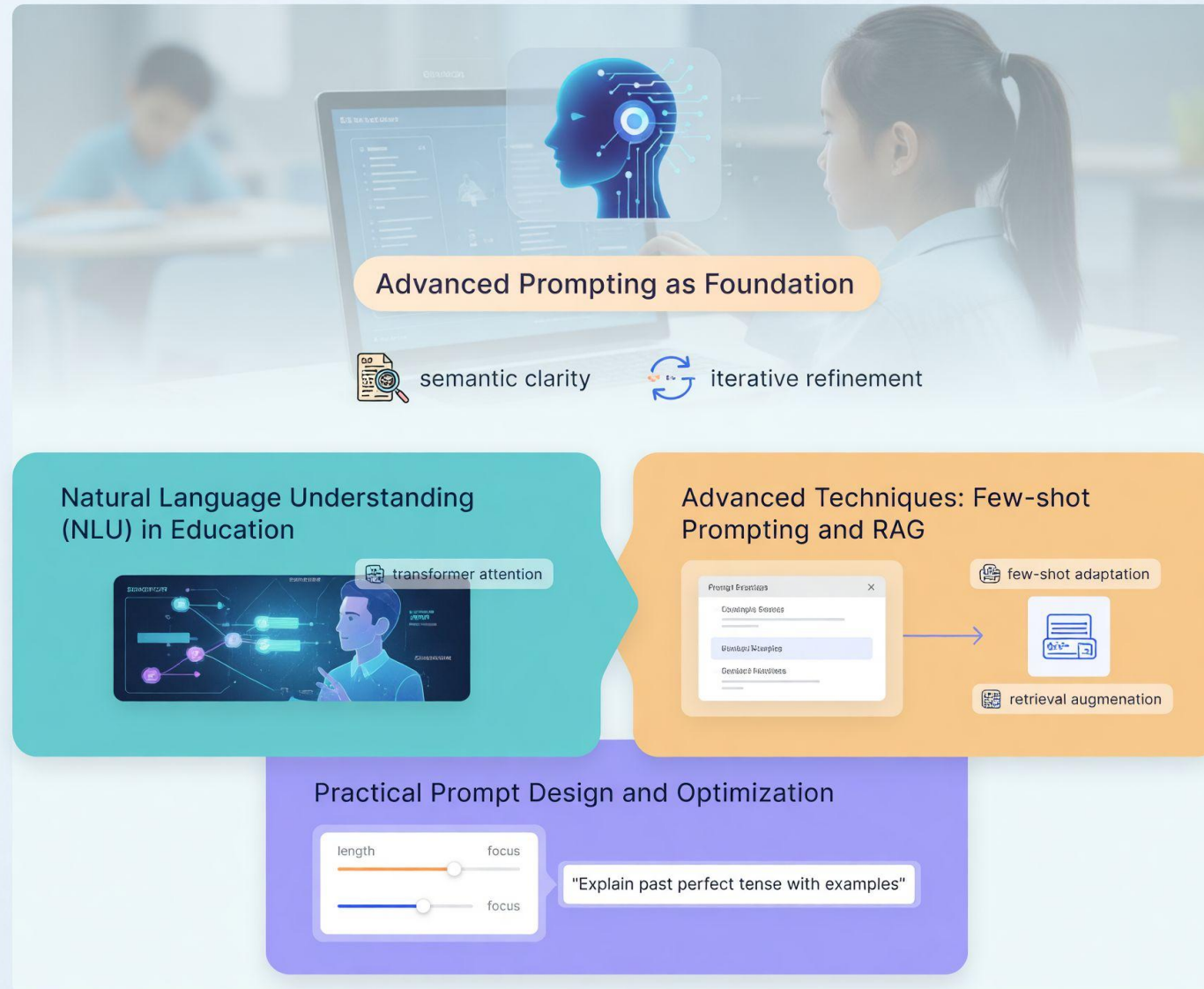
Disclaimer: Generated content may reference third-party materials. Users are responsible for verifying rights and usage. See [T&C](#) for detail.

Educational GenAI Agent Design

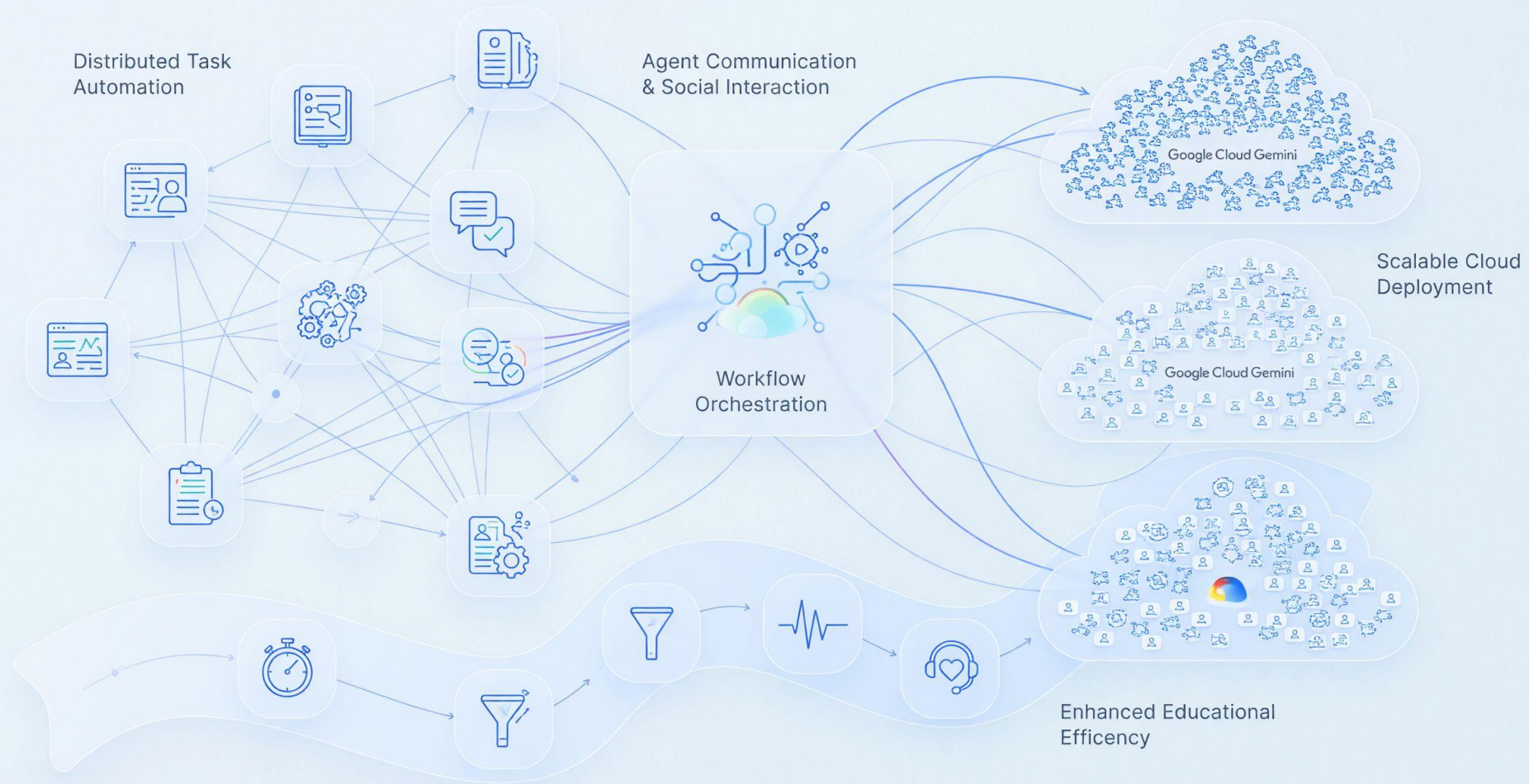
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Advanced Prompting and Natural Language Adoption



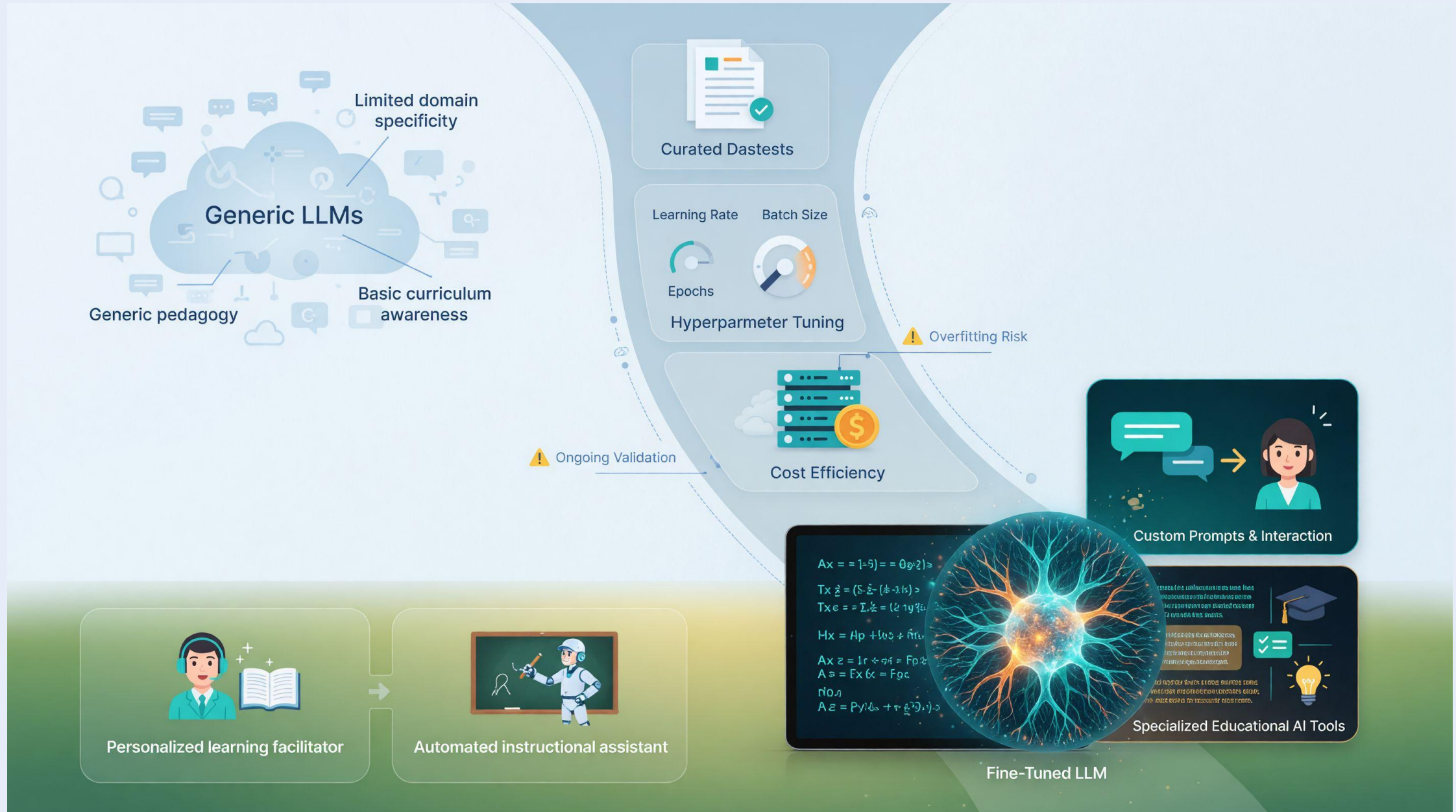
Workflow Automation with Multi-Agent Systems



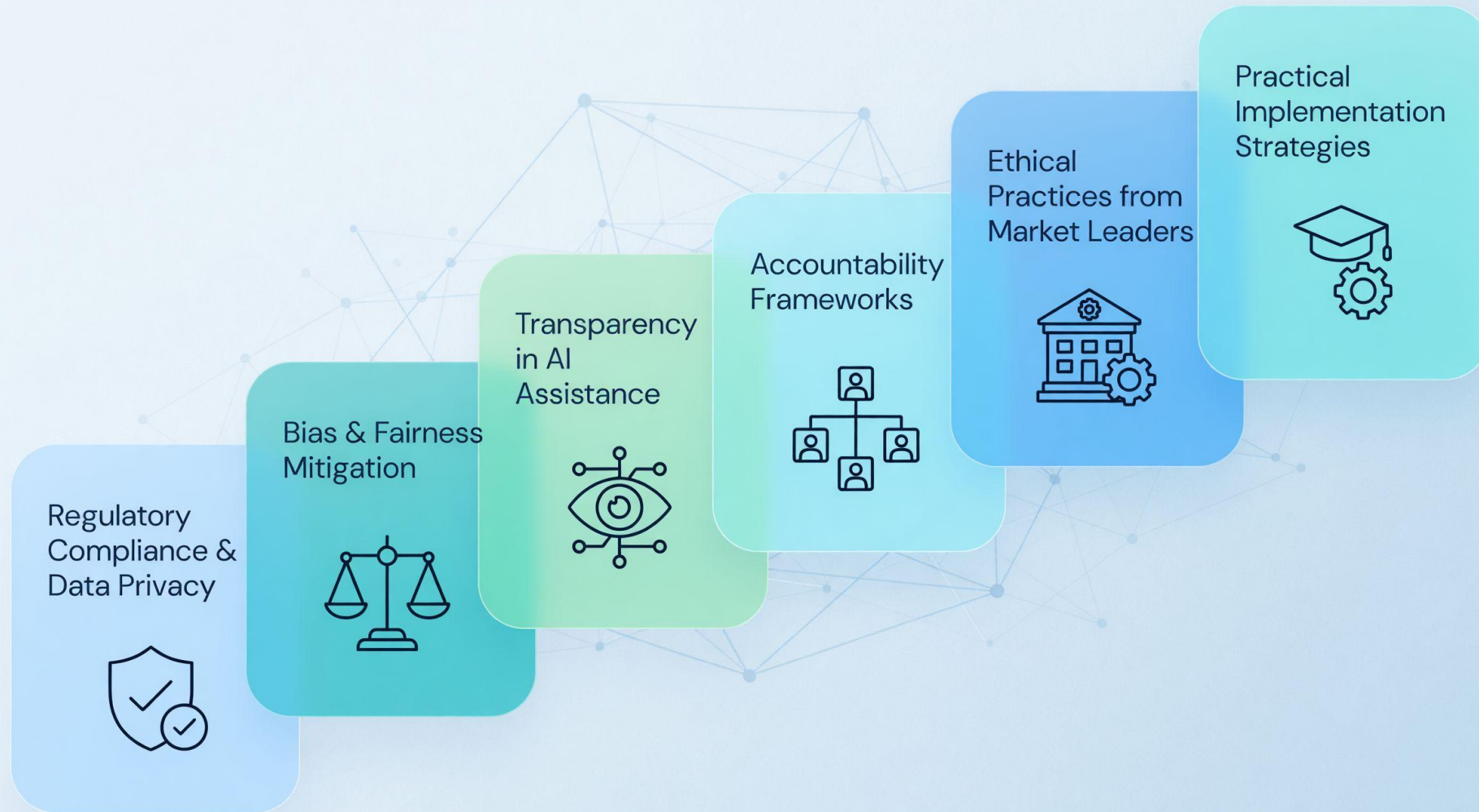
Integrating different functional blocks for Agent Development



Fine-Tuning and Customizing GenAI agents for Educational Needs



Ethical and Legal Considerations in GenAI Development



Agent Workplace: Agent Development Platform

As shown in the block diagram, the input layer is the LLM block. The variables shown in the block setting about the prompt are referred to the Overview page under Variables sub-page. Click the variable in the lefthand side to view the detail in righthand side

Agent Workplace to create, modify agent settings

Creator Studio

Alan CityUEE

Back to Poffices

Dashboard

MY AGENTS

Agent Workspace

Agent Store

Generation History

LOGIC BLOCKS

My Blocks

Store

Installed

API Builder

Variables

Docs

My Agents

Agent Workspace

120 agents

General Office

Business Office

Strategy Office

Research Office

Project Office

Sales & Marketing Office

Education and Training Office

HR Office

Financial office

PR Office

Company Secretary Office

Personal Assistant Office

General

Overview

Block Diagram

Test

Basic Settings

Variables

Documentation

Configure the variables for this agent

72% Complete

Prompt Variables

System Variables

Agent Variable

Agent Background

Agent Role

Agent Knowledge

Agent Data

Agent Instruction

Title Generate

Content Generate

Image Rules

Reference Rules

Agent Background (agent_background)

Agent Role (agent_role)

Agent Knowledge (agent_knowledge)

Agent Workplace: Agent Development Platform

Although the initial prompt was created by the Agent Wizard, the system prompt is general. User can modify the prompt as the domain specific prompt and the knowledge and related data can be added as the initial agent system prompt variables

Note: Other method to upgrade the agent to be domain specific agent is to provide more information by 1) input by user query, 2) uploading file, 3) connecting to database, 4) connecting to file server, 5) connecting to web server

Agent Workplace to create, modify agent settings

Creator Studio

Alan CityUEE

Back to Poffices

Dashboard

MY AGENTS

Agent Workspace

Agent Store

Generation History

LOGIC BLOCKS

My Blocks

Store

Installed

API Builder

Variables

Docs

My Agents

My Agents > Agent Workspace

Agents

Search agents...

Compact

120 agents

General Office 3

Business Office 8

Strategy Office 15

Research Office 5

Project Office 5

Sales & Marketing Office 10

Education and Training Office 5

HR Office 10

Financial office 5

PR Office 5

Company Secretary Office 20

Personal Assistant Office 15

General

hk-g

Official

Overview

Block Diagram

Test

Soon

Basic Settings

Variables 13/18

Documentation

Configure the variables for this agent

72% Complete

Prompt Variables

System Variables

Agent Variable 77

Agent Background 52

Agent Role 28

Agent Knowledge

Agent Data

Agent Instruction 13

Title Generate 20

Content Generate 438

Image Rules 705

Reference Rules 78

Agent Knowledge (agent_knowledge)

Knowledge base information

Agent Data (agent_data)

Structured data

Agent Instruction (agent_instruction)

Generate the complete document content directly based on the 'document_type' following these steps:

Practical Exercise

1. Keep this note confidential. You must NOT share to others or release to public.
2. Login Creator Studio
3. Based on the above concept to modify the agent design
4. Test the newly created agent with the new domain-specific system prompt for the educational agent design
5. Compare the outcome with previous result.

Modify the prompt correspondingly

(1) Click **Agent Master** to choose your newly created agent

(2) Enter your input with new prompt, check click generation.

The screenshot displays the 'Creator Studio' interface for 'Poffices.AI'. The top navigation bar includes 'Back to Poffices', 'My Agents', and 'Agent Workspace'. The left sidebar lists various components like 'Agent Store', 'Generation History', 'Logic Blocks', 'My Blocks', 'Store', 'Installed', 'API Builder', 'Variables', and 'Docs'. The main area shows the 'General' settings for an agent, with the 'Variables' tab selected. This tab allows configuring variables for the agent, with a progress bar indicating '72% Complete'. The 'Prompt Variables' section lists several variables: 'Agent Variable' (77), 'Agent Background' (52), 'Agent Role' (28), 'Agent Knowledge' (13), 'Agent Data' (20), 'Agent Instruction' (438), 'Image Rules' (705), and 'Reference Rules' (78). The 'Agent Knowledge' section shows 'Knowledge base information' and 'Agent Data (agent_data)' with 'Structured data'. The 'Agent Instruction' section contains a prompt: 'Generate the complete document content directly based on the 'document_type' following these steps:'. Below the interface, a banner celebrates the '1st Anniversary' of 'Poffices.AI' and identifies it as an 'AI Document Generator'. A text input field prompts the user to 'Describe the document to generate (e.g. Marketing plan for a toy shop)'. At the bottom, there are buttons for 'Private', 'Agent Master' (which is circled in red), and 'Digital Assets', along with an upload icon and a right arrow. A disclaimer at the very bottom states: 'Disclaimer: Generated content may reference third-party materials. Users are responsible for verifying rights and usage. See T&C for detail.'

Workflow Automation with Multi-Agent Systems

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Concepts of Multi-Agent Systems

Multi-Agent Systems



Key Characteristics



Decentralization



Communication &
Coordination



Autonomy



Interdependency



State
Management

Rationale and Applications



Specialization



Parallel Tasks

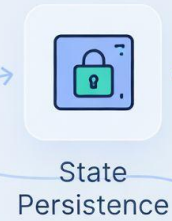
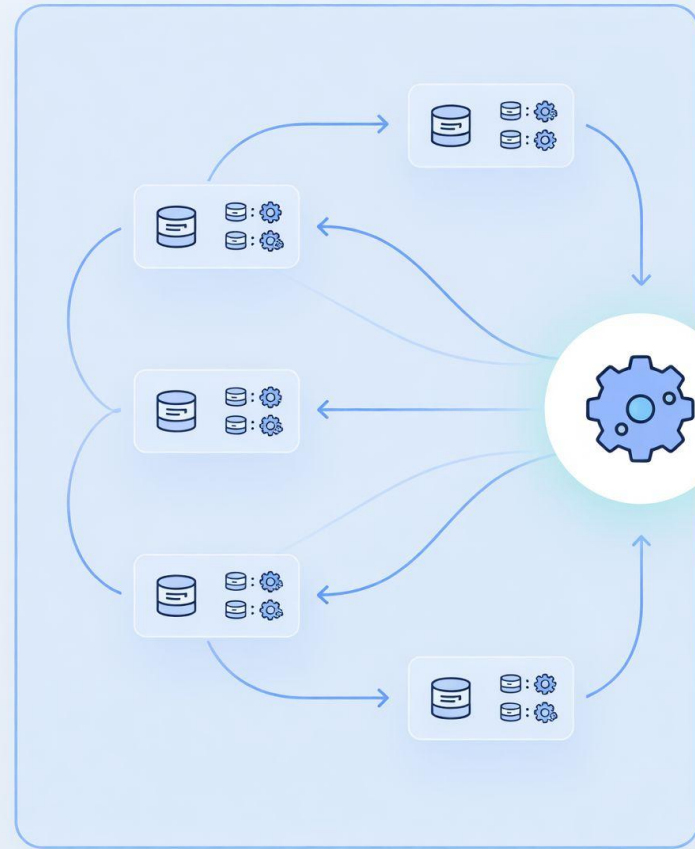


Reliability

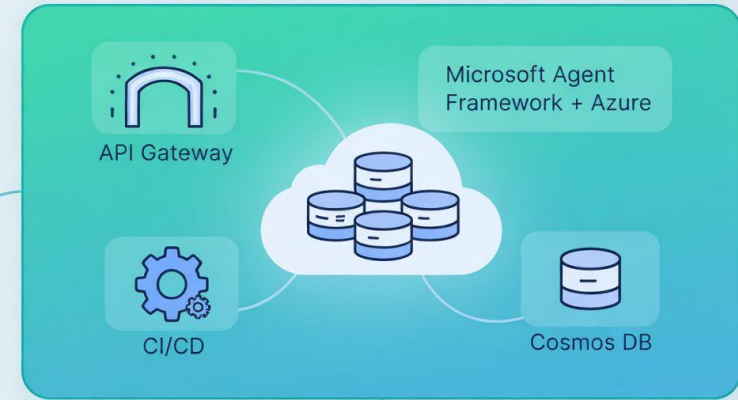


Workflow Automation Frameworks

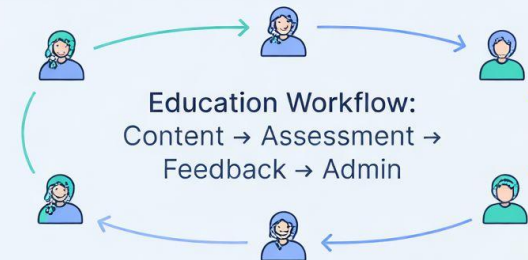
Workflow Automation Frameworks



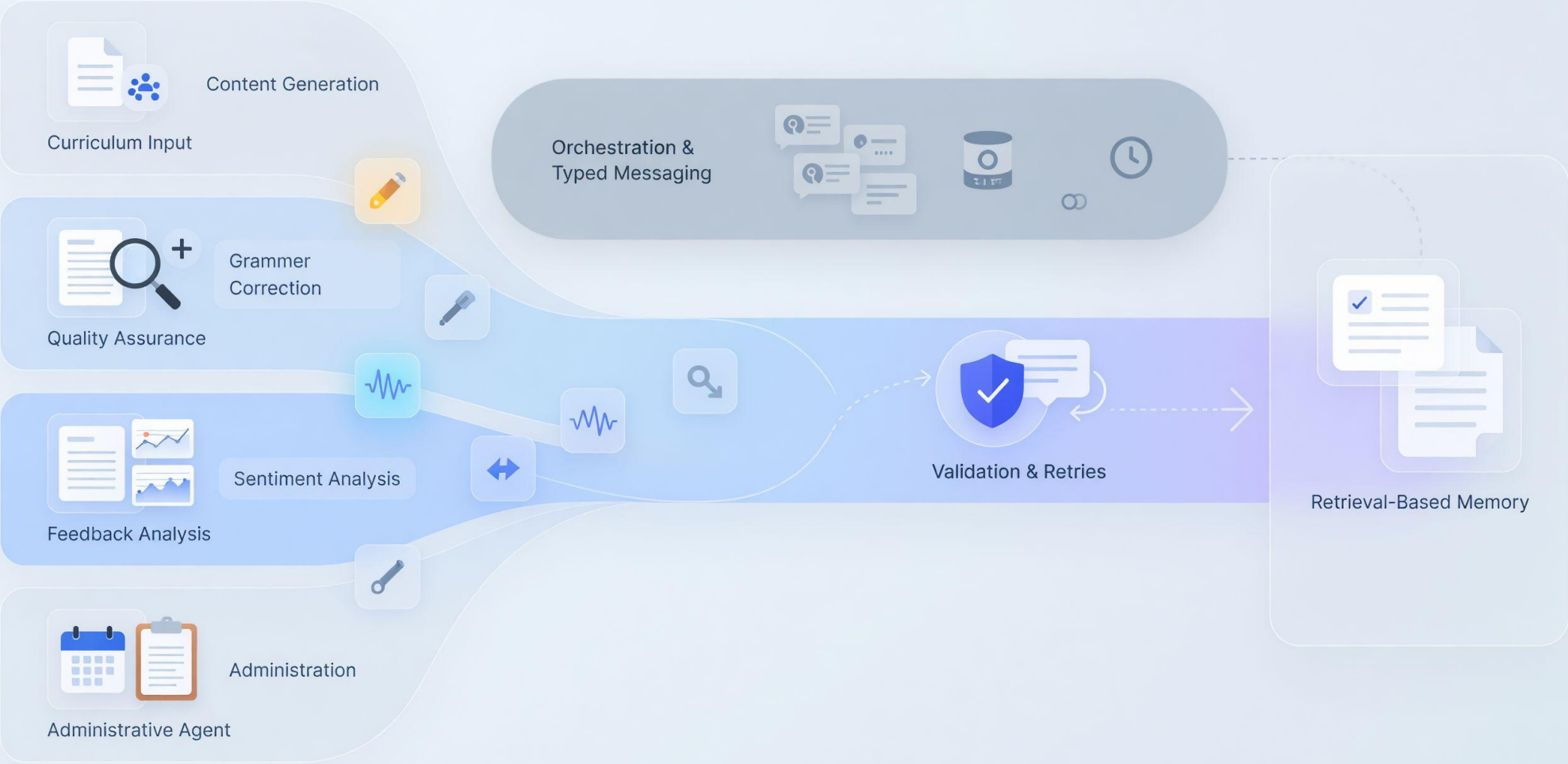
Enterprise-Grade Solution



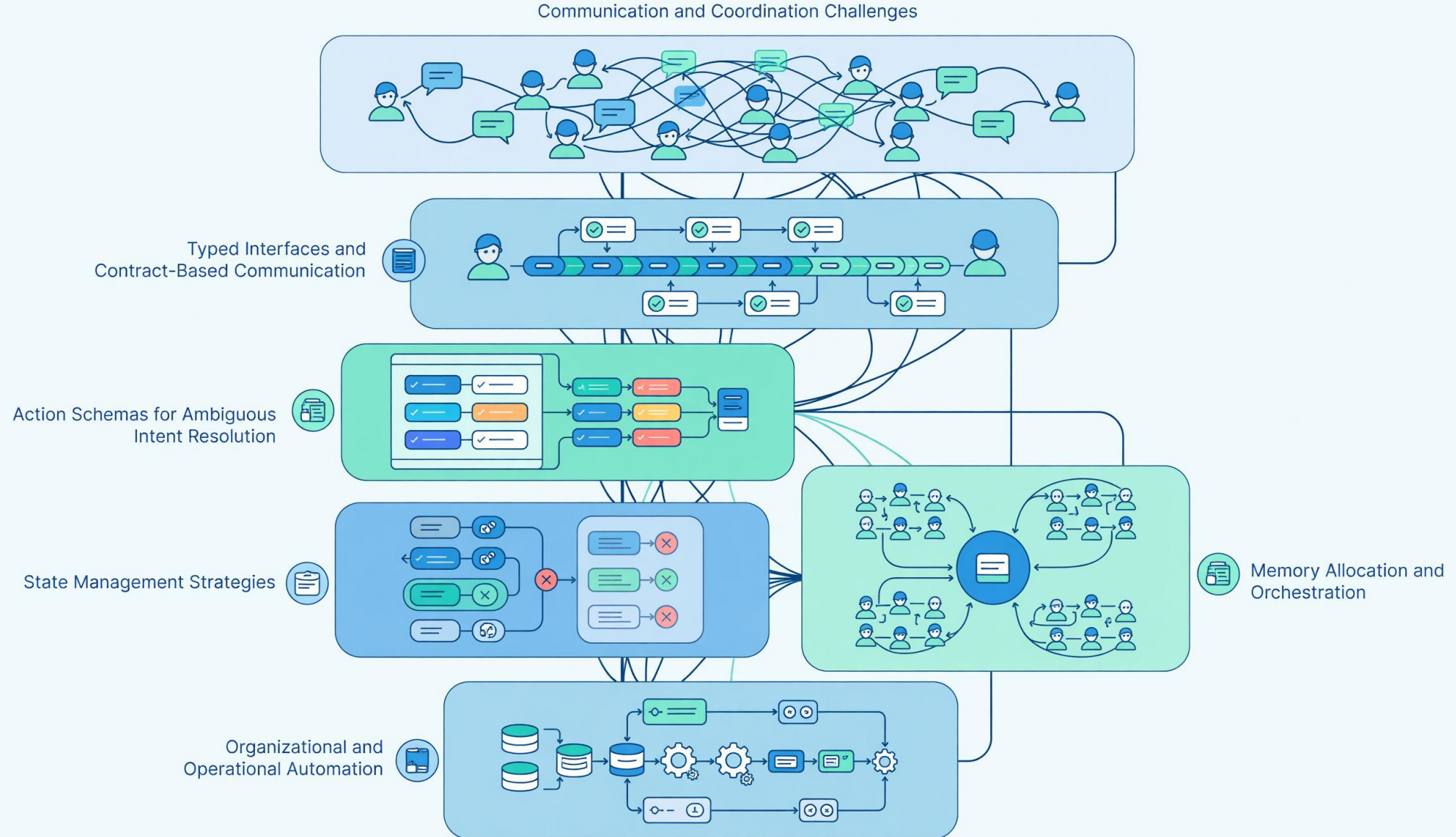
Education Workflow



Examples of Workflow Design



Challenges and Solutions

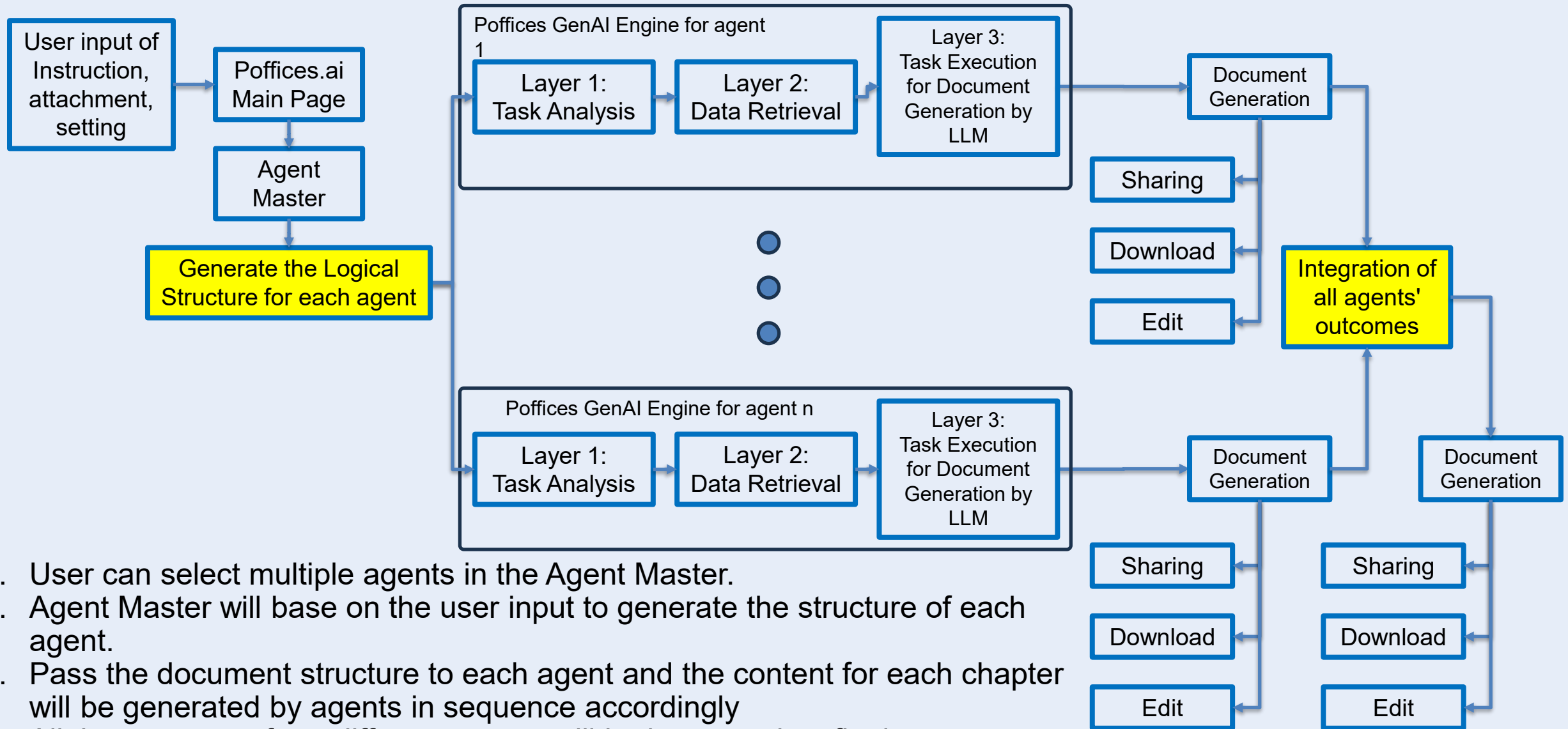




Poffices.AI

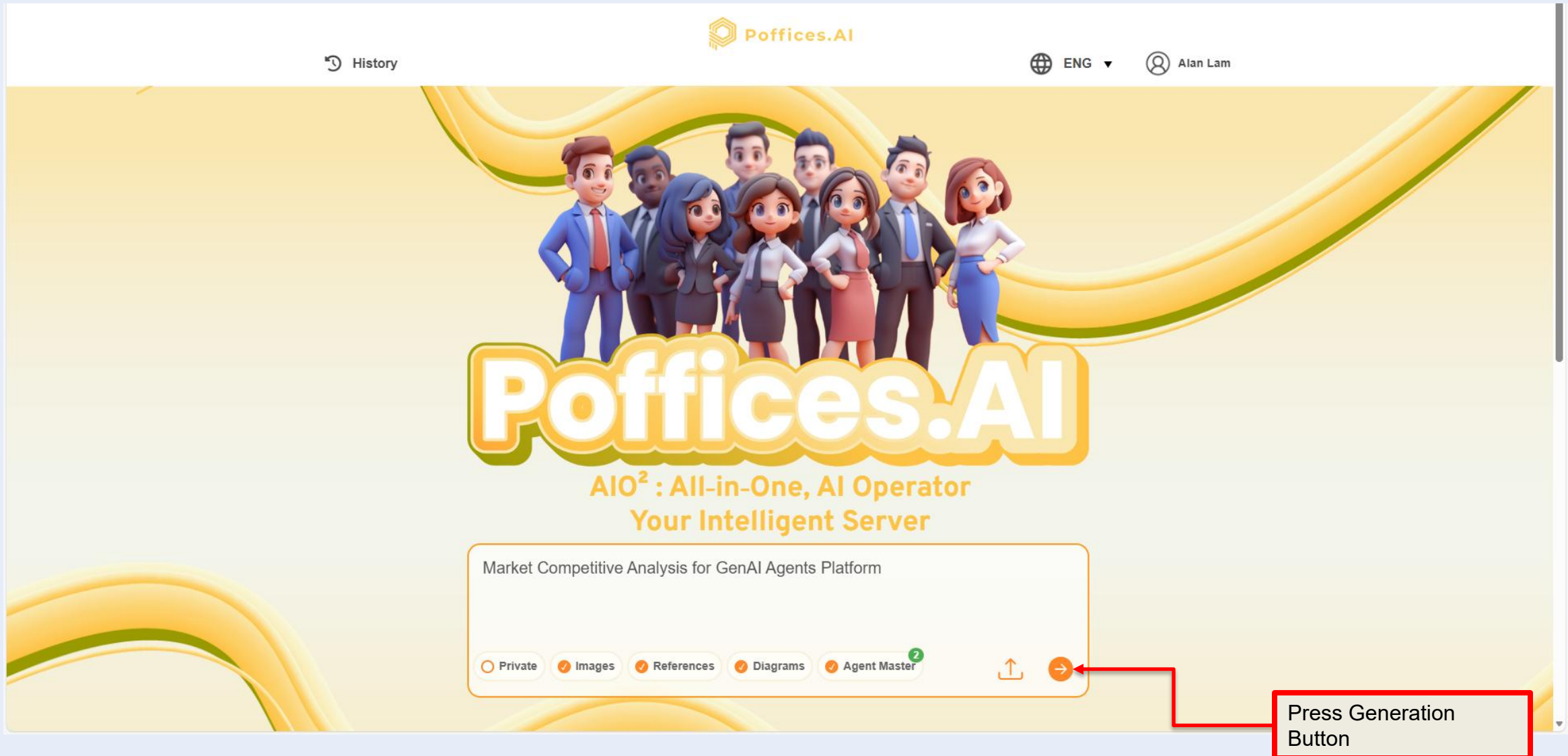
Poffices.AI Agent Master Function

Structure of GenAI Multi-Agents Platform



1. User can select multiple agents in the Agent Master.
2. Agent Master will base on the user input to generate the structure of each agent.
3. Pass the document structure to each agent and the content for each chapter will be generated by agents in sequence accordingly
4. All the outcomes from different agents will be integrated as final outcome.

GenAI Multi-Agents Platform



GenAI Multi-Agents Platform



Generate the
outcome from agent 1

Market Analysis for GenAI Agents Platforms

Introduction

The rapid evolution of artificial intelligence (AI) has positioned generative AI (GenAI) as a transformative force across industries. Among its many applications, **AI agents**—autonomous systems capable of executing tasks through natural language processing and machine learning—are emerging as a critical innovation within the GenAI landscape. As businesses seek to leverage AI for efficiency, personalization, and competitive advantage, the market for GenAI agents platforms is expanding rapidly. This analysis aims to evaluate the current state of the market, identify key players, and explore opportunities and challenges shaping the industry. By integrating qualitative and quantitative research methods, this document provides actionable insights for stakeholders aiming to navigate the complexities of the GenAI agents sector.

The scope of this analysis includes examining **target demographics**, **market trends**, **consumer preferences**, and the broader competitive environment. With the global AI market projected to reach **HKD 4.8 trillion by 2033** [5], the demand for GenAI agents platforms is expected to grow exponentially. This document will also highlight the role of strategic positioning, technological advancements, and regulatory considerations in shaping the future of the market.

Market Trends

The adoption of GenAI agents platforms is driven by their ability to automate complex workflows and enhance decision-making processes. According to McKinsey's report, **AI agents are the next frontier of generative AI**, particularly in fields such as online marketing, where the workflow involves translating business objectives into creative outputs [1]. This trend underscores the increasing integration of AI agents into enterprise operations, enabling real-time data analysis, personalized customer interactions, and predictive modeling.

A key driver of this growth is the **scalability and adaptability** of AI agents. Unlike traditional AI tools, which often require extensive human oversight, GenAI agents can operate independently, learning from interactions to improve performance over time. This capability is especially valuable in industries like finance, healthcare, and e-commerce, where rapid response and precision are paramount. Additionally, the rise of **multimodal AI models**—capable of processing text, images, and audio—has expanded the potential applications of GenAI agents, further fueling market demand.

However, challenges such as **data privacy regulations** and **ethical concerns** remain significant barriers. For instance, the General Data Protection Regulation (GDPR) in the European Union imposes strict guidelines on data usage, which may limit the deployment of AI agents in certain regions. Despite these hurdles, the market continues to expand, with **Hong Kong** emerging as a hub for AI innovation due to its favorable business environment and investment in digital infrastructure.

GenAI Multi-Agents Platform

As the market matures, **collaboration between industry leaders and startups** will be essential to drive **standardization and ethical practices**. Hong Kong, with its **digital infrastructure and investment climate**, is well-positioned to become a **global leader in AI agent development**. By addressing these challenges proactively, stakeholders can unlock the full potential of GenAI agents and position themselves for long-term success in this rapidly evolving landscape.

References

- [1] Why AI agents are the next frontier of generative AI | McKinsey: <https://www.mckinsey.com/capabilities/tech-and-ai/our-insights/why-agents-are-the-next-frontier-of-generative-ai>
- [2] 7 Steps To Create A Competitive Landscape Analysis | SurveyMonkey: <https://www.surveymonkey.com/market-research/resources/steps-to-create-a-competitive-landscape-analysis/>
- [3] 10 best AI agent platforms & companies I'm using in 2025 | Marketer Milk: <https://www.marketermilk.com/blog/best-ai-agent-platforms>
- [4] Generative AI in the Construction Industry: Opportunities & Challenges: <https://arxiv.org/abs/2310.04427>
- [5] AI market projected to hit HKD 4.8 trillion by 2033, emerging as: <https://unctad.org/news/ai-market-projected-hit-48-trillion-2033-emerging-dominant-frontier-technology>



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Enter your follow up message

☐ New question ☒ Images ☒ References ☒ Diagrams

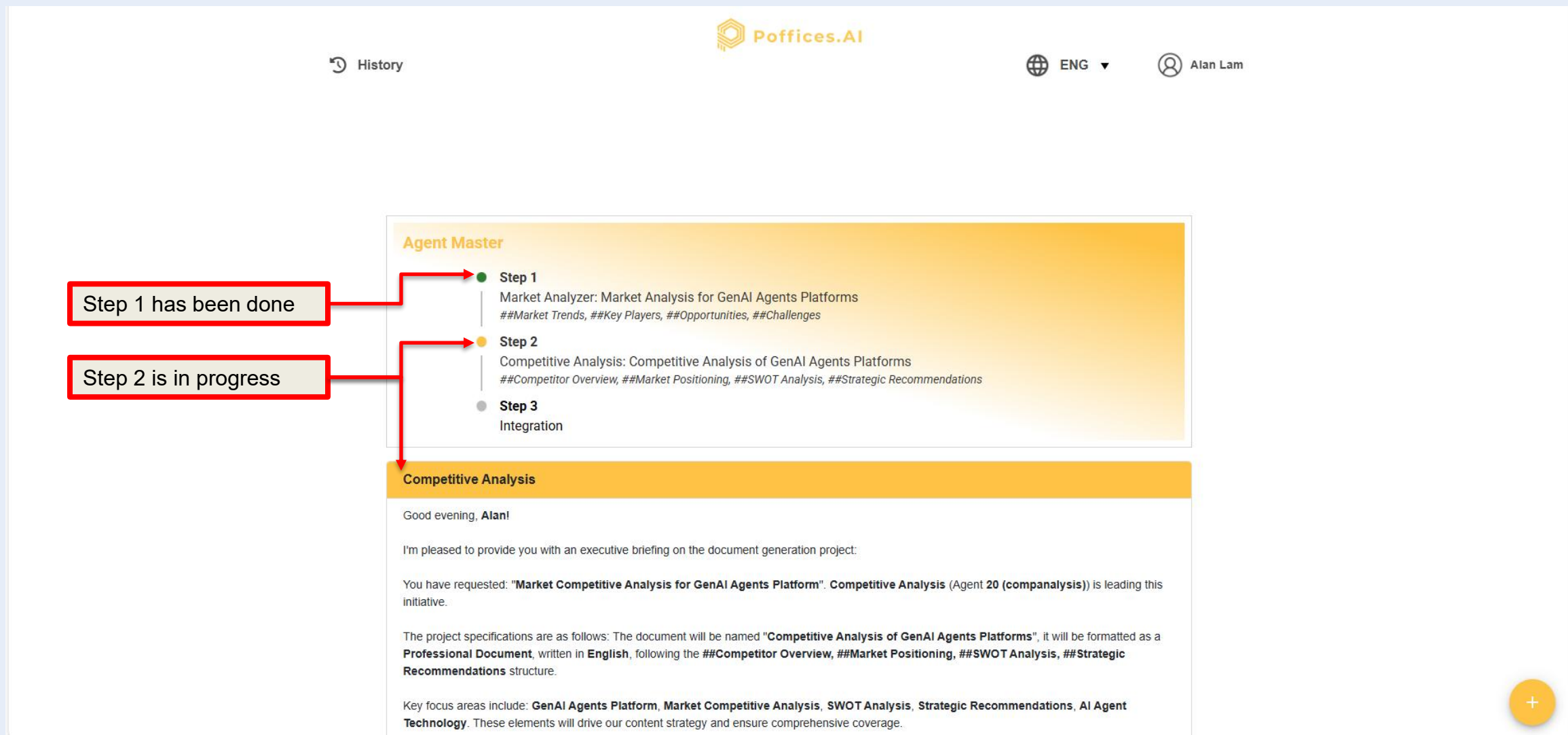


↪ Next

User can input follow up message for adjustment of the generation

Press Next button for next agent to execute next step

GenAI Multi-Agents Platform



The screenshot displays the Poffices.AI web interface. At the top, there is a navigation bar with a 'History' link, the Poffices.AI logo, a language selector set to 'ENG', and a user profile for 'Alan Lam'. The main content area features a yellow 'Agent Master' panel with a progress list:

- Step 1** (Completed): Market Analyzer: Market Analysis for GenAI Agents Platforms
##Market Trends, ##Key Players, ##Opportunities, ##Challenges
- Step 2** (In Progress): Competitive Analysis: Competitive Analysis of GenAI Agents Platforms
##Competitor Overview, ##Market Positioning, ##SWOT Analysis, ##Strategic Recommendations
- Step 3** (Pending): Integration

Two red callout boxes with arrows point to the progress indicators: 'Step 1 has been done' points to the green dot of Step 1, and 'Step 2 is in progress' points to the yellow dot of Step 2. Below the 'Agent Master' panel is a 'Competitive Analysis' section with a yellow header. The content of this section includes a greeting, a project briefing, a request summary, project specifications, and key focus areas.

Competitive Analysis

Good evening, **Alan!**

I'm pleased to provide you with an executive briefing on the document generation project:

You have requested: "**Market Competitive Analysis for GenAI Agents Platform**". **Competitive Analysis** (Agent 20 (companalysis)) is leading this initiative.

The project specifications are as follows: The document will be named "**Competitive Analysis of GenAI Agents Platforms**", it will be formatted as a **Professional Document**, written in **English**, following the **##Competitor Overview, ##Market Positioning, ##SWOT Analysis, ##Strategic Recommendations** structure.

Key focus areas include: **GenAI Agents Platform, Market Competitive Analysis, SWOT Analysis, Strategic Recommendations, AI Agent Technology**. These elements will drive our content strategy and ensure comprehensive coverage.

Generate the outcome from agent 2

Competitive Analysis of GenAI Agents Platforms

Competitor Overview

The competitive landscape for GenAI agents platforms is rapidly evolving, driven by advancements in artificial intelligence and the increasing demand for automation and efficiency across various industries. Key players in this market include established tech giants such as Google, Microsoft, and IBM, alongside emerging startups that are leveraging innovative approaches to deliver superior solutions. These competitors vary in their product offerings, pricing strategies, and market positioning, which can significantly impact their ability to attract and retain customers.

For instance, Google has made substantial strides with its AI initiatives, offering a range of tools like Google Cloud AI and Gemini, which are designed to cater to both developers and enterprises. This positions Google as a formidable competitor, given its extensive resources and brand recognition. On the other hand, Microsoft has been investing heavily in Azure AI and its AI agent capabilities, aiming to capture market share through integration with existing cloud services and a strong ecosystem of partners.

In addition to these major players, there are several niche startups that focus on specific applications of GenAI agents, such as customer service, data analysis, and content creation. These startups often differentiate themselves by offering tailored solutions that address unique pain points within particular industries. For example, ServiceNow's AI agents are specifically designed for enterprise environments, emphasizing workflow automation and integration with existing systems.

To provide a clearer picture, a table below outlines the key competitors and their respective strengths and weaknesses:

Competitor	Strengths	Weaknesses
Google	Extensive R&D, robust AI infrastructure, strong brand	High cost of entry, complex implementation
Microsoft	Comprehensive cloud solutions, integration capabilities	Limited customization options
IBM	Strong research background, industry-specific solutions	Slower adoption rate
Startups	Niche focus, innovative features, lower cost	Limited market reach, less brand awareness

GenAI Multi-Agents Platform

- cloud-based enterprise AI platforms, offering insights into key players and market trends.
5. [Competitor Analysis Tool: The AI-Powered Website Spy](#) - This tool provides an in-depth look at competitor websites, helping businesses analyze their digital performance and strategize effectively.
 6. [How to Perform Competitor Analysis: A Step-by-Step Guide](#) - This guide outlines the steps necessary for conducting a comprehensive competitor analysis, emphasizing the importance of data collection and interpretation.
 7. [Competitor Analysis Frameworks](#) - This blog post discusses various frameworks for conducting competitive analysis, offering practical examples and insights for businesses looking to enhance their strategies.
 8. [AI Market Competition Analysis Agent](#) - This resource highlights the role of AI in market analysis, showcasing how agents can be utilized to gather and interpret data effectively.
 9. [Seizing the agentic AI advantage](#) - This article from McKinsey discusses the potential of agentic AI and its implications for businesses seeking to gain a competitive edge.
 10. [The state of AI in 2025: Agents, innovation, and transformation](#) - This report provides an overview of the current state of AI, including the rise of agents and their impact on various industries.

These references serve as a foundation for the analysis, ensuring that the information presented is accurate and supported by credible sources. They also highlight the importance of continuous research and adaptation in the rapidly evolving field of GenAI agents platforms. ■



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User can input follow up message for adjustment of the generation

Enter your follow up message

Press Next button for next agent to execute next step

☐ New question

☒ Images

☒ References

☒ Diagrams



↪ Next



GenAI Multi-Agents Platform

History

ENG

Alan Lam

Step 1 and 2 have been done

Final Step is in progress

Agent Master

- Step 1
Market Analyzer: Market Analysis for GenAI Agents Platforms
##Market Trends, ##Key Players, ##Opportunities, ##Challenges
- Step 2
Competitive Analysis: Competitive Analysis of GenAI Agents Platforms
##Competitor Overview, ##Market Positioning, ##SWOT Analysis, ##Strategic Recommendations
- Step 3
Integration

Integration

Good evening, **Alan!**

I'm here to report on the document generation task you assigned. Here are the details:

You have requested: "**Market Competitive Analysis for GenAI Agents Platform**". I am **Integration** (Agent 4 (**agent-manager-package**)) and I have been assigned to handle this task.

Regarding the document specifications: written in **English**.

The document generation process has been initiated with these specifications. I'll update you immediately if there are any progress.

Time of preparation: **1.4s** Time of completion: **57.5s**

GenAI Multi-Agents Platform

Title of the document

Introduction of the whole document has been generated

Generated content from agent 1

Comprehensive Market and Competitive Analysis of GenAI Agents Platforms

Introduction

The rapid evolution of artificial intelligence (AI) has positioned generative AI (GenAI) as a transformative force across industries, with AI agents emerging as a critical innovation within this landscape. This document provides a comprehensive analysis of the market and competitive dynamics for GenAI agents platforms, aligning with the ultimate goal of identifying key players, trends, opportunities, and challenges. The analysis integrates qualitative and quantitative research methods to offer actionable insights for stakeholders aiming to navigate the complexities of this rapidly growing sector.

The market for GenAI agents platforms is driven by their ability to automate complex workflows, enhance decision-making processes, and deliver personalized user experiences. Key trends include the scalability and adaptability of AI agents, which operate independently to improve performance over time, and the rise of multimodal AI models that process text, images, and audio. These advancements have expanded applications across industries such as finance, healthcare, and e-commerce. However, challenges like data privacy regulations, ethical concerns, and high implementation costs remain significant barriers. Hong Kong's emergence as an AI innovation hub, supported by its favorable business environment and digital infrastructure, highlights regional opportunities for growth.

The competitive landscape is shaped by a mix of established tech firms and emerging startups. Major players like Google DeepMind, Meta, and Microsoft Azure leverage their resources to develop robust frameworks, while niche startups such as Clarity AI and DeepSeek focus on vertical-specific applications. Pricing models vary, with subscription-based, cloud-based, and one-time licensing strategies influencing market positioning. Opportunities abound in sectors requiring real-time decision-making and personalized experiences, including enterprise automation and integration with legacy systems. Additionally, the expansion of AI agents into emerging markets and the development of open-source frameworks are accelerating adoption. Despite these prospects, challenges such as data security, technological maturity, and economic constraints necessitate strategic investments in innovation, regulatory alignment, and cost-effective solutions.

This document synthesizes market trends, competitive strategies, and strategic recommendations to guide stakeholders in leveraging GenAI agents platforms effectively. By addressing both opportunities and challenges, it aims to provide a holistic view of the market's trajectory and its implications for future growth.

Market Analysis for GenAI Agents Platforms

Conclusion of the whole document has been generated

Conclusion

The GenAI agents platform market stands at a pivotal juncture, characterized by rapid technological advancements, evolving consumer demands, and dynamic regulatory environments. While the global AI market is projected to reach HKD 4.8 trillion by 2033, the successful adoption of GenAI agents hinges on overcoming critical challenges such as data security, technological limitations, and economic barriers. Stakeholders must adopt a strategic approach that balances innovation with compliance, ensuring that their offerings align with both current market needs and future trends.

The competitive landscape is increasingly fragmented, with established tech giants and agile startups vying for dominance. Companies like Google, Microsoft, and IBM continue to lead through their extensive R&D capabilities and integration with existing ecosystems, while niche startups capitalize on specialized applications and lower entry costs. However, the market's complexity demands a nuanced understanding of pricing models, user experience, and customization options. Subscription-based models offer sustained revenue streams, whereas freemium strategies enable broader user acquisition. The ability to seamlessly integrate with cloud services and APIs further enhances market positioning, as businesses prioritize interoperability and scalability.

Strategic recommendations emphasize the importance of user education, enhanced UX design, and collaborative partnerships. Investing in training programs can mitigate resistance to adoption, while intuitive interfaces and responsive support foster user engagement. Leveraging alliances with industry leaders and innovators can drive standardization and ethical practices, ensuring that GenAI platforms meet regulatory requirements and societal expectations. Continuous innovation remains vital to maintain relevance, particularly as technologies like blockchain and IoT converge with AI to create new possibilities.

Hong Kong's role as an AI innovation hub underscores the potential for regional leadership in this field. Its robust digital infrastructure, investment climate, and supportive policies position it to attract talent and capital, further fueling the growth of GenAI agents platforms. However, global competition necessitates proactive measures to address data privacy concerns and ensure cross-border compliance. As the market matures, the emphasis on ethical AI and sustainable practices will become increasingly critical, shaping the long-term viability of GenAI solutions.

In conclusion, the GenAI agents platform market offers immense potential but requires careful navigation of technical, economic, and regulatory challenges. By prioritizing innovation, collaboration, and strategic alignment with industry needs, stakeholders can unlock the full value of GenAI agents. This will not only drive efficiency and personalization but also establish a resilient foundation for long-term success in this transformative sector.



Practical Exercise

1. Keep this note confidential. You must NOT share to others or release to public.
2. Login <https://poffices.ai/>
3. Using Agent Master to test multi-agents workflow by select suitable agent one by one in agent master to handle your task.
4. Compare the results of multi-agents workflow and single agent outcome.



- (1) Click **Agent Master** to choose multi-agents with purpose sequence

Mapping Education Workflows for GenAI Integration

Ir Prof Alan Lam, JP,



Powered by **Poffices.AI**

Overview of Education Workflows

Education Workflows



Adaptive, Data-Driven Workflows



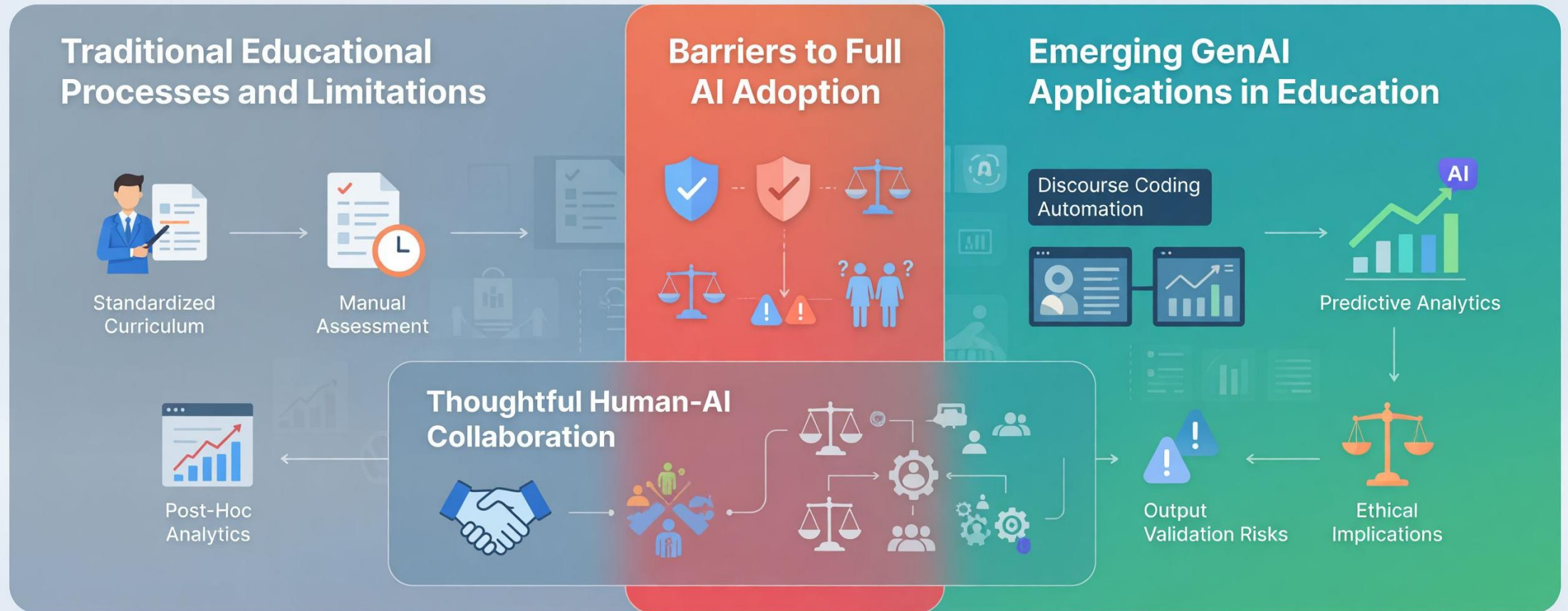
Generative AI Integration



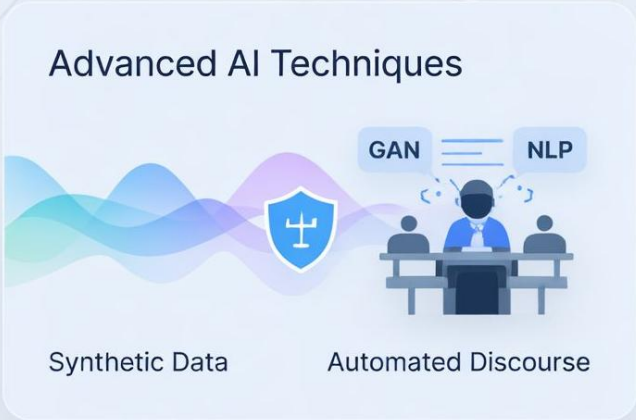
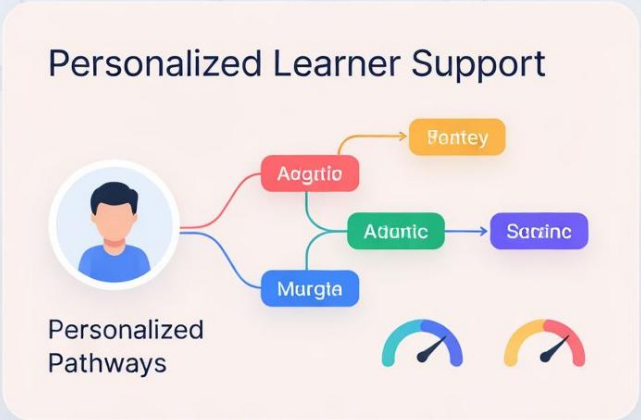
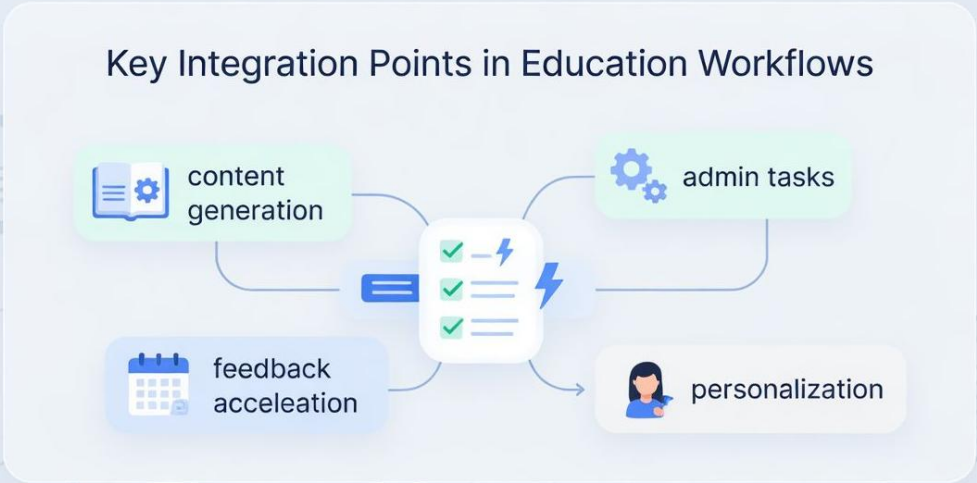
Collaborative Human-AI Interaction



Analysis of Current Educational Processes



Identification of Integration Points



Challenges in Integration

Output Reliability and Validation Risks



Educator Readiness and Adoption Challenges



Privacy and Ethical Concerns



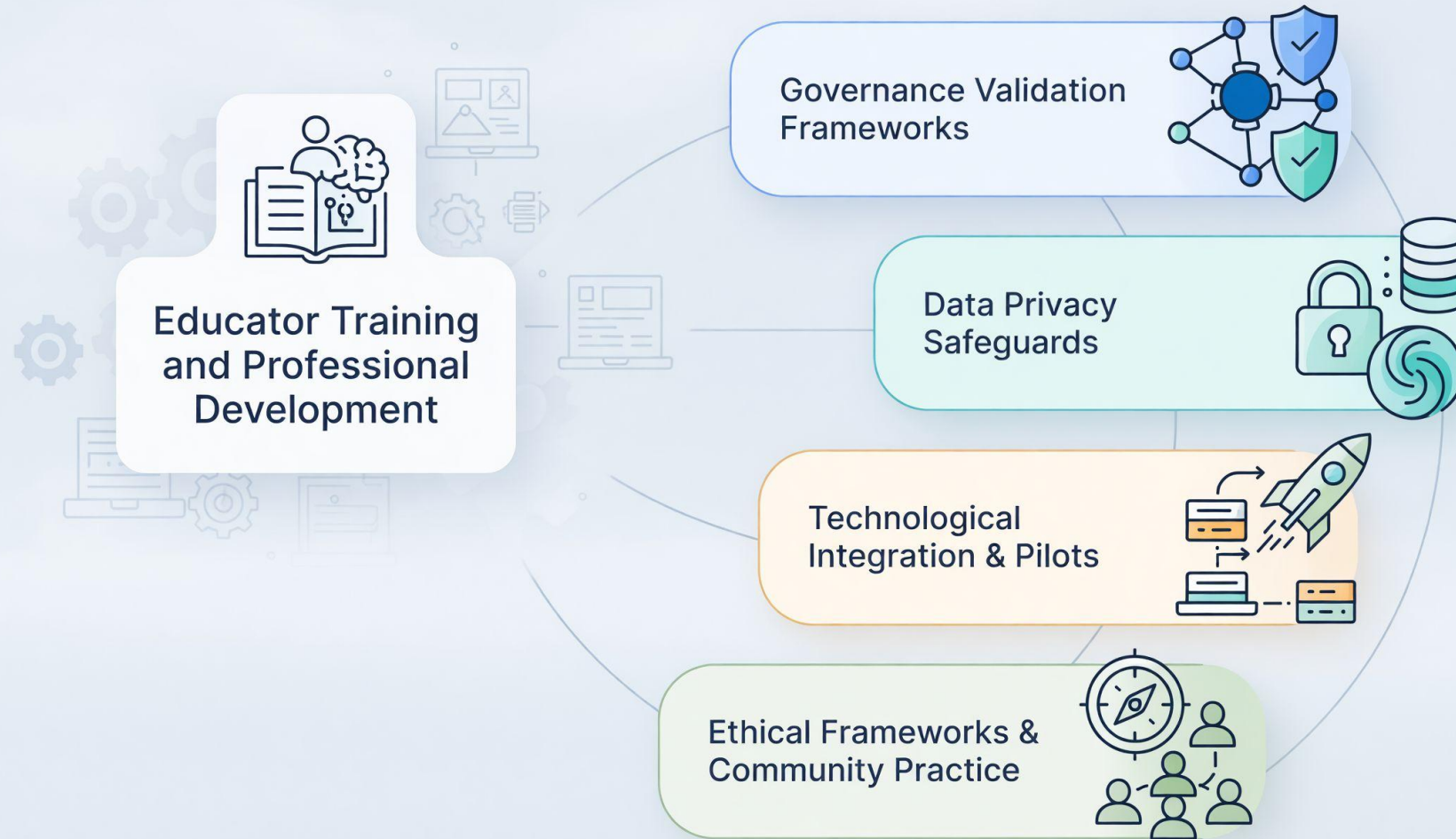
Technological Infrastructure and Compatibility



Curricular Coherence and Assessment Validity



Strategies to Overcome Integration Barriers



Practical Examples of Workflow Mapping



Practical Exercise

1. Keep this note confidential. You must NOT share to others or release to public.
2. Login <https://poffices.ai/>
3. Based on the above concept to design an educational workflow that involves multiple agents
4. Using Agent Wizard to create the proposed agents
5. Test the newly created agents and check the outcomes by Creator Studio Generation History function.



- (1) Click **Agent Master** to choose newly created agents

End of Presentation

Thank You