



Xi'an Jiaotong-Liverpool University
西交利物浦大学

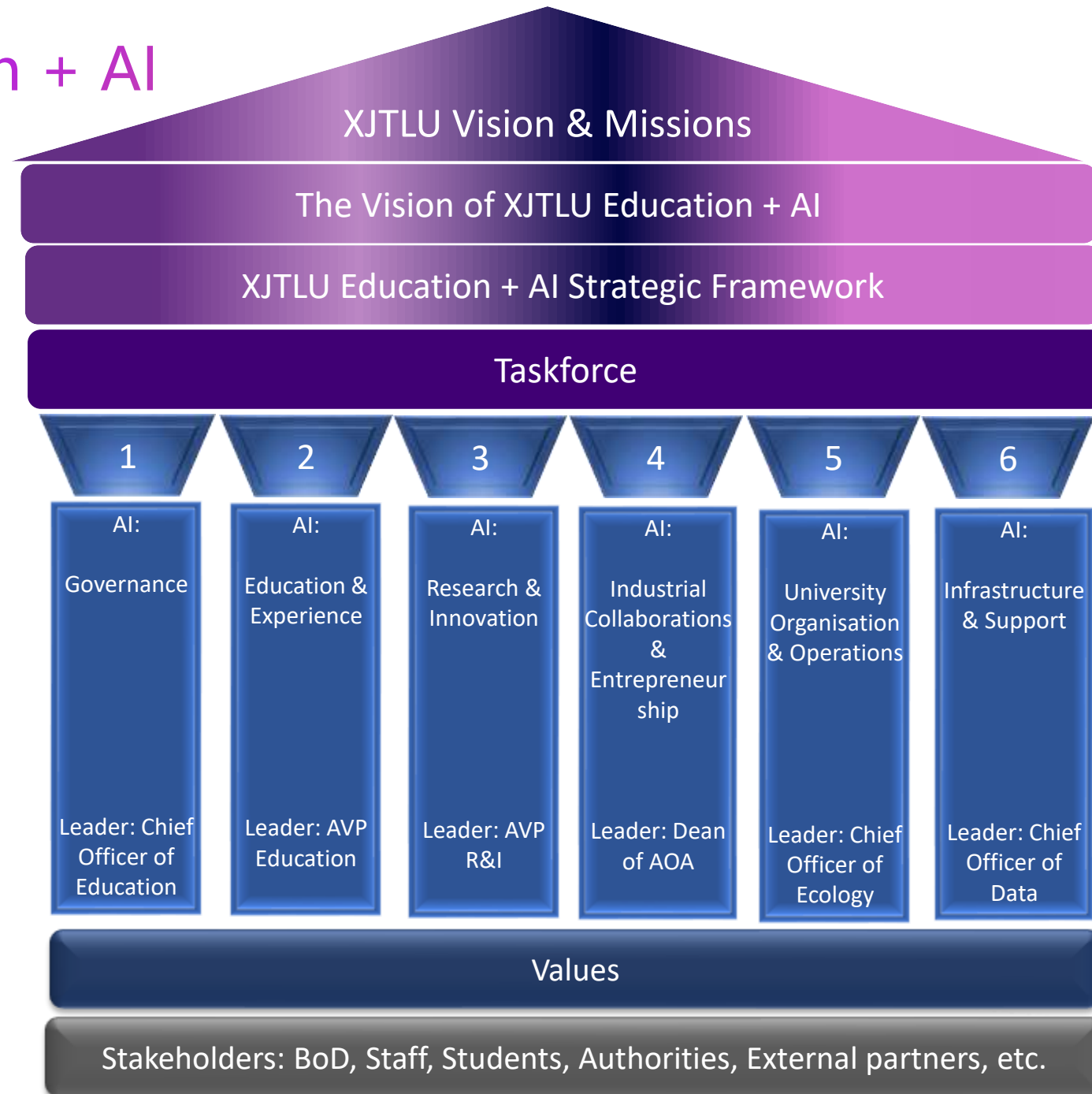
Transforming Higher Education Management and Student Support through AI: Enhancing Efficiency, Empowering Staff, and Enriching the Student Experience

Professor Stuart Perrin

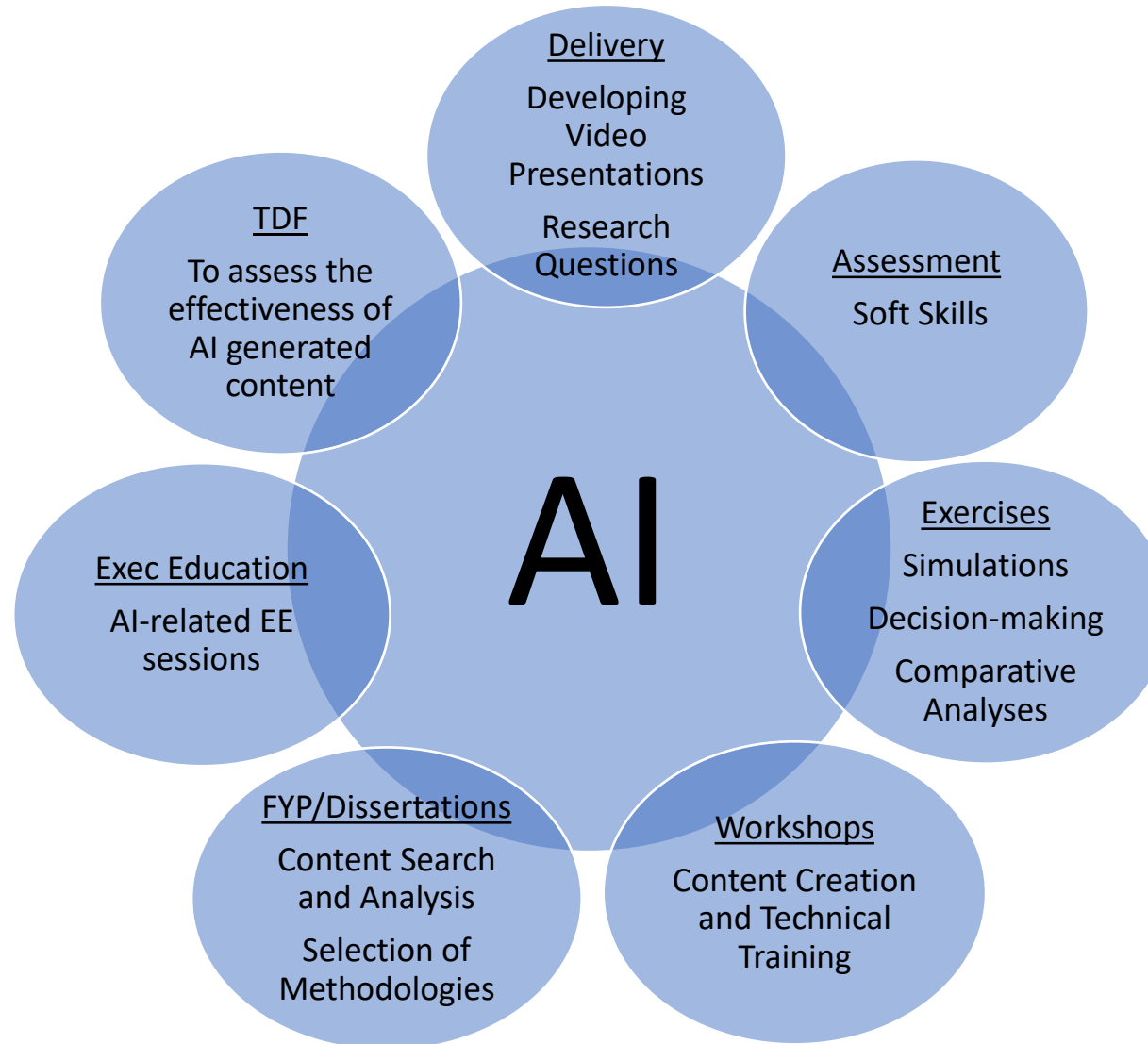
The Chief Officer of (Education) Ecology

2024.6.18

XJTLU Education + AI

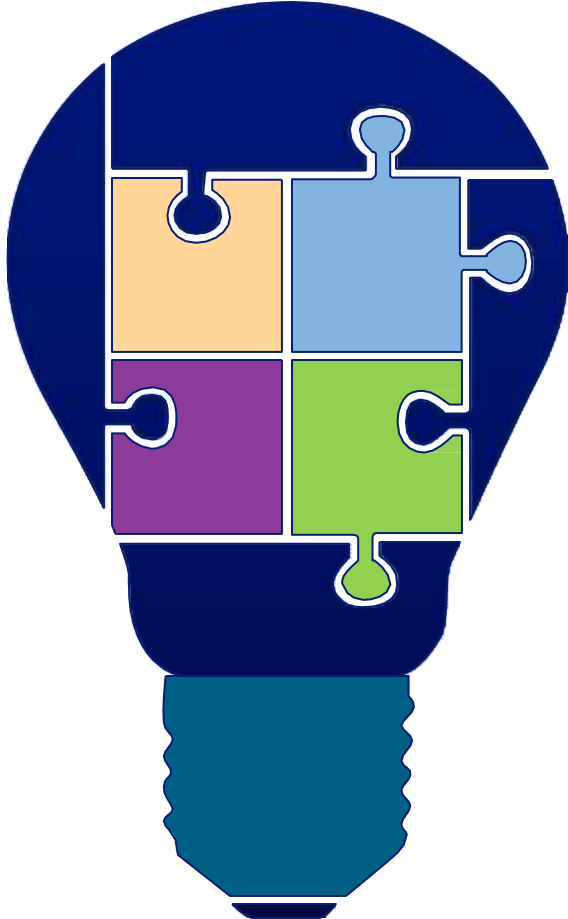


AI in L&T



AI General Education – University platform structure

AIMS AND PURPOSE



- AI literacy as a core competency
- Competitive advantage for graduates
- Demand from students and employers
- Enhance AI knowledge across disciplines
- Stimulate AI inter-disciplinary growth
- Foster innovation across disciplines
- Enhance research capabilities
- AI's role in personalised learning and education
- Ethical leadership in AI development
- Support institutional growth and prestige

What we offer



- Introduced AI Tutor on Learning Mall
- Implemented AI-enhanced modules across XJTLU
- Rolled out XIPU AI for students and staff
- Introducing AI General Education modules at each level
Build knowledge incrementally and provide choice
- Embed AI knowledge within disciplines and not as an add-on
- Address the AI needs of STEM and non-STEM students
- Upskill staff through comprehensive staff development
- Drive interdisciplinary research and innovation
- Innovate in curriculum design
- Develop leadership in AI education advocacy
- Increase research productivity

AI Tutor on Learning Mall



- Learning Mall has launched an AI Tutor function plugin on Learning Mall Core.
- Combines teacher-uploaded materials (Local Knowledge Base) with OpenAI's Large Language Model.
- Acts as an AI teaching assistant for specific subject areas.
- Learning Mall team co-develops and optimises AI Tutor with academics.
- Fosters innovation across disciplines.
- Enhances research capabilities.
- AI's role in personalised learning and education.

AI General Education – University platform structure

XIPU AI for students and staff

Acts as a virtual tutor

- Explains concepts and breaks down complex topics.
 - Suggests areas for further study.
 - Assists with constructing strong arguments.
 - Enhances teaching and learning experiences.
 - Promotes AI literacy for future readiness in academics and work.
 - Robust ethics, privacy, and security controls for responsible use.
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- Supports lesson planning and personalised student outcomes.
 - Generates quiz questions, explanations, and content.
 - Supports the exploration of XJTLU's culture of educational excellence.
 - Empowers staff and students with cutting-edge technology for academic success.



XIPU AI in Education

AI in Education Action Plan

Students-centered, adaptive teaching; Technology-driven, educational innovation;
Resource sharing, open cooperation; Continuous development, lifelong learning.

Dual scenario

AI + Education Metaverse

AI + Lifelong Learning

Five Dimensions

Research

Development

Application

Training

Service

Three Directions

Education + AI

Research + AI

Management + AI

AI Capability & Application Platform

Multimodal large language model pool | Machine learning | Virtual simulation | Modeling & Computation |
AI agent & workflow automation | Knowledge base | Intelligent Q&A

AI Digital Infrastructure Platform

AI services | Data platform services | Computing storage&network services | Container services |
IoT services | Development services | Security services



From LLMs to AI Agents

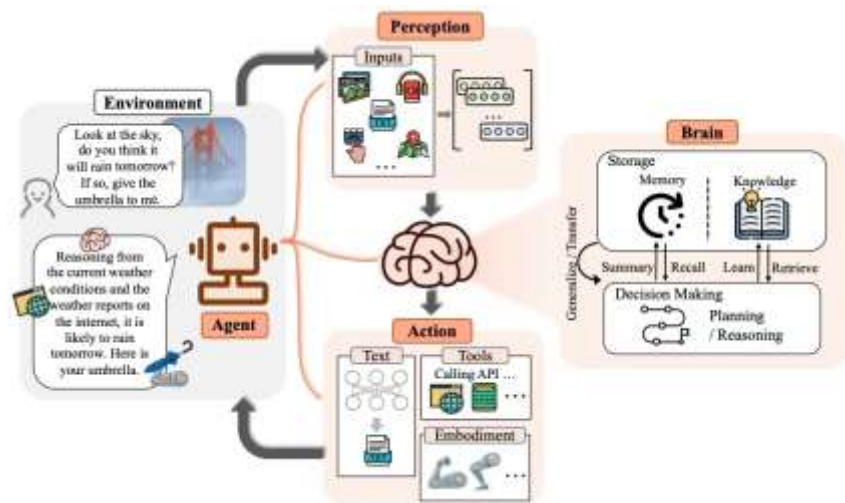
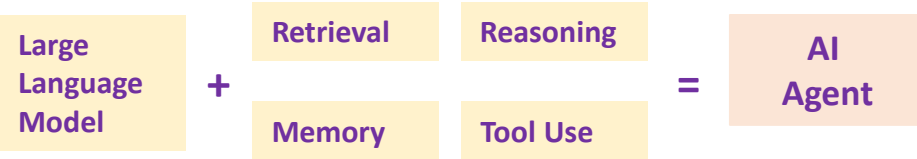
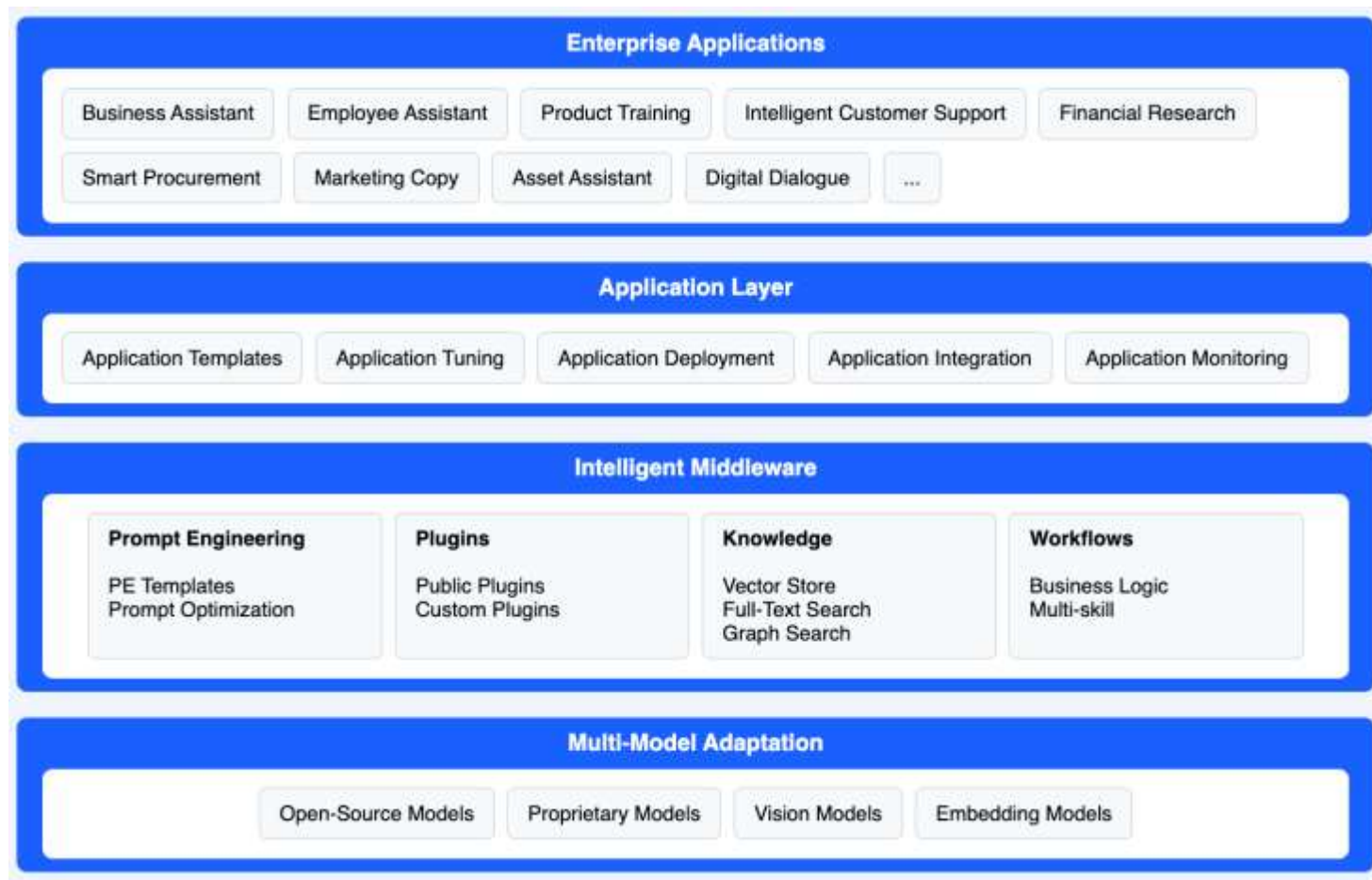


Image source: Luo, H. (2023). *Intro of AI Agent & AI Agent Projects Summary*. Medium. <https://medium.com/@henryhengluo/intro-of-ai-agent-ai-agent-projects-summary-52f4a364ab86>



Aspect	LLMs	AI Agents
Core Function	Generate human-like text based on patterns in training data	Perform goal-oriented tasks (e.g., decision-making, tool use, automation)
Interaction with World	Passive: No ability to act or interact with external systems	Active: use APIs, tools, sensors, or environments
Autonomy & Memory	Stateless: No persistent memory or long-term planning	Stateful: maintain memory, adapt strategies, and plan over time
Task Execution	Limited to language tasks	Execute multi-step workflows
Reasoning & Adaptability	Surface-level reasoning; struggles with dynamic, real-world problem-solving	Built to reason, self-correct and adapt to changing conditions
Specialized Skills	General-purpose language skills	Domain-specific expertise

HiAgent – AI Agent Building Platform



HiAgent is an AI agent creation platform that utilizes LLM capabilities for customer service.

Unlike traditional AI tools, HiAgents closely aligns with business needs, allowing teams to easily create and configure agents using **natural language and intuitive drag-and-drop tools**, ultimately reducing operational costs and improving service quality.



THANK YOU!

Thanks to XJTLU Learning Mall and School of AIAC

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