

background music volume, display the hall introduction, and trigger a weapon explanation video. The mouse wheel can be used to rotate objects 360° to zoom in and out. A long press on the mouse button moves puzzle pieces to complete the game.

This project leveraged the powerful capabilities of Unity3D and Maya to create a virtual exhibition hall that is both educational and entertaining. The realistic 3D scenes and interactive features allow visitors to fully explore and learn in the virtual space, injecting new vitality into the inheritance and exchange of historical culture.

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## **AI-POWERED MANAGEMENT INFORMATION SYSTEMS IN EDUCATION**

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The development of management information systems (MIS) has historically been driven by the need to handle increasing amounts of organizational data. With the emergence of artificial intelligence, the very nature of MIS is undergoing transformation. According to Y. Lobo, “AI and machine learning are not simply add-ons to current MIS architectures; they represent a paradigm shift that redefines how organizations manage, analyze, and act on information” [4, p. 12]. This perspective emphasizes that AI is no longer a supporting technology but the very backbone of modern information management.

When analyzing the potential of AI-powered MIS, A. McNee and M. Hassan stress that “the ability of AI to automate decision-making processes, recognize patterns in unstructured data, and deliver predictive insights will reshape not just data management but organizational governance” [5, p. 41]. Their research suggests that universities, which are traditionally overloaded with heterogeneous data streams – from student records to research databases – are ideal testing grounds for such systems.

Peking University provides a unique case study in this regard. J. Ho highlights that “AI initiatives at Peking University go beyond laboratory experimentation; they are integrated into daily administrative and academic operations, signaling a broader reimagining of the university as a digital ecosystem” [1, p. 6]. This approach transforms the institution from a passive user of digital tools into an active developer of intelligent platforms that shape the very experience of students, faculty, and administrators.

A particularly notable contribution from Peking University researchers is the FastServe system, designed to handle the intensive computational needs of large language models. As reported in MarkTechPost, “FastServe introduces a distributed inference serving system that significantly reduces latency and operational costs while scaling across large academic and research datasets” [7, p. 77]. In practical terms, this system demonstrates how universities can apply AI not only to research but also to the efficient management of their internal data ecosystems.

At the same time, the Chinese context provides fertile ground for such experiments. R. Xia argues that “the trajectory of AI development in China shows a strong focus on institutional integration, with universities acting as incubators for both academic innovation and societal transformation” [11, p. 14]. Thus, Peking University serves not just as a single institution deploying advanced MIS, but as a model for how higher education in China is positioning itself as a driver of the AI-powered knowledge economy.

From a global perspective, N. Nance observes that “the evolution of MIS by 2030 will not merely automate existing workflows but will fundamentally redefine organizational structures, introducing self-regulating and self-optimizing systems” [6, p. 25]. When linked to the case of Peking University, such projections illustrate the university’s role in testing precisely these self-regulating mechanisms in practice.

One of the most striking examples of AI innovation in China is the unveiling of Tong Tong, the world’s first “AI child” prototype. As M. Jijo notes, “Tong Tong represents a leap toward artificial general intelligence (AGI), designed not only to simulate human-like responses but also to demonstrate adaptive learning in complex, real-world scenarios” [2, p. 19]. While not developed strictly as a management tool, the project highlights how Peking University researchers and their partners explore systems capable of independent reasoning. For MIS, this signals the potential for developing decision-making assistants that can autonomously process institutional data, adapt to new contexts, and recommend actions for administrators and educators.

Equally important is the collaboration between Peking University and ByteDance in creating VAR (Versatile Accelerated Reasoning) models. According to MarkTechPost, “the VAR system surpasses diffusion models in both speed and efficiency, offering real-time adaptability in data-heavy

environments” [10, p. 47]. Within an academic MIS framework, this capacity for real-time adaptability means that complex student performance analyses, research output evaluations, or even campus resource allocations can be managed in ways that were previously impossible due to computational bottlenecks.

Another innovative contribution comes in the form of LLaVA-1.6, which integrates improved reasoning, optical character recognition (OCR), and world knowledge. AIBase reports that “this model is particularly suited for environments where diverse information formats – ranging from handwritten documents to large databases – need to be unified into actionable insights” [3, p. 34]. For Peking University’s MIS, this implies the possibility of harmonizing scattered administrative records, scanned archives, and student-generated content into a seamless digital ecosystem.

J. Ho emphasizes that “these projects collectively show that Peking University is not treating AI as a peripheral experiment but as a strategic instrument to redefine the management of knowledge and information” [1, p. 22]. This holistic adoption demonstrates the institution’s vision of leveraging AI-powered MIS as both an academic infrastructure and a societal prototype.

On a broader scale, K. Shen, X. Tong, T. Wu, and F. Zhang from McKinsey point out that “AI has the potential to add as much as \$600 billion to China’s economy by 2030, largely through efficiency gains and the creation of intelligent systems across industries” [9, p. 15]. If universities like Peking University continue integrating systems such as FastServe, VAR, and LLaVA into their MIS, they will not only optimize academic administration but also directly contribute to these projected macroeconomic gains.

The implications for MIS are therefore multifaceted. As A. Prasath explains, “AI-powered service management introduces intelligent layers of automation that anticipate user needs, detect problems before they arise, and continuously improve system efficiency” [8, p. 58]. At Peking University, such layers can manifest in personalized student advising systems, predictive maintenance for campus infrastructure, or automated compliance monitoring for research ethics.

Taken together, these projects demonstrate that Peking University is positioning itself as a leader in the future of AI-powered MIS – a future in which academic institutions act not only as users of digital tools but as co-creators of intelligent systems that can be scaled to industry and government.

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