

APPLICATION OF ARTIFICIAL INTELLIGENCE (AI) IN BUILDING LEARNING RESOURCE SYSTEMS TO ENHANCE TEACHING EFFICIENCY IN POLITICAL THEORY AND GENERAL LAW

Pham Thi Thu Huong¹, Dang Thi Thu Phuong²

Nam Dinh University of Technology Education, Vietnam

ABSTRACT

In the context of digital transformation in education and the rapid development of Artificial Intelligence (AI), innovating teaching methods in social sciences, particularly Political Theory and General Law, has become an urgent requirement to enhance training quality and efficiency. This study focuses on investigating the application potential of AI technologies in building intelligent learning resource systems, thereby supporting lecturers in instructional organization and promoting active, proactive learning among students. Research findings demonstrate that integrating AI into learning resource development not only diversifies knowledge access modalities and elevates student learning interest and performance, but also contributes to modernizing and introducing flexibility into pedagogical methods aligned with contemporary political and legal education requirements.

Keyword: *Artificial Intelligence (AI); learning resource system; Political Theory instruction; General Law; educational digital transformation; pedagogical innovation.*

1. INTRODUCTION

Against the backdrop of the Fourth Industrial Revolution profoundly influencing all spheres of social life, education and training are facing an imperative demand for comprehensive innovation in content, methodology, and instructional organization. The rapid development of Artificial Intelligence (AI) is opening up new possibilities to elevate educational quality, particularly in developing digital learning resources, personalizing learning pathways, and enabling effective instructional support. For theoretical disciplines, including Political Theory and General Law, applying AI carries not only technological significance but also vital pedagogical and ideological value, contributing to improved knowledge transmission, the formation of a scientific worldview, and the enhancement of legal consciousness among learners.

Current instructional practice in Political Theory and General Law reveals that despite notable achievements, substantial challenges and limitations persist: course contents remain highly abstract, the knowledge volume is vast, instructional approaches tend toward one-way transmission, and learning resources lack richness

and fail to adequately support students' self-directed study and research. Meanwhile, new generations of students increasingly lean toward accessing knowledge via digital platforms, demanding higher interactivity, visual engagement, and personalization. This necessitates the establishment of smart, flexible learning resource systems tailored to subject-specific characteristics and target student cohorts, wherein AI serves as a key tool to address these challenges.

From a contemporary policy perspective, digital transformation in education and training receives strategic priority from the Party and the State of Vietnam, viewed as a primary driver to enhance human resource quality and meet national development demands in the new era. Conducting research on and integrating AI into the teaching of Political Theory and General Law aligns with overarching modern educational trends and directly concretizes major guidelines for fundamental and comprehensive educational reform amidst globalization and development.

Originating from these imperatives, this paper aims to clarify the theoretical and practical foundations of applying AI to build learning

resource systems for Political Theory and General Law instruction, analyzing the potential benefits as well as requirements for AI deployment in this domain. On this basis, the study proposes strategic orientations and solutions to establish a modern, efficient AI-based learning resource system, enhancing teaching and learning quality to meet current political and legal education mandates.

2. MAIN CONTENT

2.1. Theoretical and Practical Foundations of AI Application in Education

Artificial Intelligence (AI) is a scientific discipline dedicated to developing systems capable of simulating human cognitive functions, such as reasoning, learning, inference, perception, and decision-making. In education, AI is regarded as a core technology driving the transition from traditional teaching models toward smart, personalized, and learner-centered instruction.

From a pedagogical standpoint, AI integration aligns closely with modern learning theories, including constructivism, active learning, personalized learning, and lifelong learning. AI enables the analysis of student learning data to dynamically adjust content, methodology, and pacing according to individual capacities, needs, and learning speeds. This is particularly valuable for abstract and highly theoretical courses like Political Theory and General Law.

Practically, the instruction of Political Theory and General Law is heavily impacted by digital transformation and higher education reform requirements. However, instructional resources remain predominantly static print textbooks lacking interactive features, failing to satisfy students' self-study demands. This necessitates building novel learning resource systems built on modern technology platforms, with AI acting as a central component.

AI in education goes beyond providing basic assistance. It plays an important role in promoting instructional innovation, improving academic management, and supporting flexible resource development. Based on constructivist theory, learning occurs through active knowledge construction, interaction, experience, and self-discovery rather than through mechanical repetition. AI tools, including adaptive learning platforms, virtual tutors, and scenario-based simulations, encourage students to engage

actively with knowledge, raise questions, and apply theoretical concepts to real world situations.

For Political Theory and General Law, the theoretical rationale for AI adoption also stems from the necessity to synthesize cognitive education with ideological, moral, and legal guidance. Appropriately designed AI tools effectively illustrate abstract theoretical principles using vivid, intuitive visual formats, raising comprehension while preserving political and ideological integrity.

Furthermore, institutional practice shows that domestic and international universities are progressively deploying smart learning platforms and AI-integrated Learning Management Systems (LMS) to improve training quality. In Vietnam, state guidelines actively promote educational digital transformation. Implementing AI in teaching political and legal subjects directly responds to these practical imperatives, overcoming traditional limitations such as passive lecturing, low interaction, and static materials.

2.2. Characteristics of Political Theory and General Law and Requirements for Learning Resource Systems

Political theory and general law courses hold a particularly important position in the higher education system, contributing to equipping students with a scientific worldview and methodology, reinforcing ideological stance, and cultivating theoretical thinking capabilities as well as legal compliance awareness. The content of these courses typically includes systems of abstract concepts, categories, and laws, requiring learners to possess logical, general, and analytical thinking abilities.

Therefore, the learning material system serving the teaching of these subjects needs to meet several basic requirements: (i) ensuring scientific accuracy and precision of content; (ii) aligning with political and ideological education goals; (iii) possessing visual, vivid, and accessible qualities; and (iv) effectively supporting students' self-study and self-research activities. The application of AI in developing learning materials has the potential to fulfill these requirements through smart and flexible capabilities.

Political theory and general law courses occupy a particularly important position in higher education curricula, especially regarding the

formation of a scientific worldview, dialectical methodology, political courage, and legal consciousness for students. These are foundational and ideologically orienting subjects that contribute to educating ideals, ethics, and lifestyle, while raising learners' political awareness and civic responsibility in the cause of building and defending the Fatherland.

Regarding content, political theory and general law subjects encompass systems of highly abstract and generalized concepts, categories, principles, and laws, such as the laws of social motion, the nature of the state and law, the political system, and the fundamental rights and duties of citizens. Accessing and acquiring this content requires learners to possess logical thinking, analytical and synthetic skills, and the ability to relate theory to reality, whereas students' proficiency levels, cognitive backgrounds, and learning interests vary significantly.

Furthermore, these subjects do not merely provide purely theoretical knowledge; they also aim at political and ideological education, contributing to strengthening scientific faith in Marxism-Leninism, Ho Chi Minh Thought, Party lines, and State policies and laws. Therefore, the requirement for teaching these subjects is not only to convey knowledge but also to impact the awareness, attitudes, and behaviors of learners.

In teaching practice, these subjects often face certain challenges: students perceive the content as dry and theory-heavy; traditional teaching methods remain lecture-centric with limited interaction; and learning materials consist primarily of printed textbooks that are seldom updated and fail to adequately meet students' self-study and self-research needs. This significantly affects teaching efficiency and learner comprehension.

Given the specific characteristics of political theory and general law subjects, the learning material system for teaching needs to meet the following basic requirements:

First, ensuring scientific accuracy, precision, and standards of content. Learning materials must accurately reflect the perspectives and guidelines of the Party, as well as the policies and laws of the State; they must guarantee orthodoxy, consistency, and timeliness. This is the top requirement for ideologically orienting and politically/legally educational subjects.

Second, connecting theory with practice to make content accessible and easy to understand. Abstract knowledge needs to be illustrated through real-world examples, practical scenarios, and typical political-legal events, thereby helping students recognize the meaning, value, and applicability of theory in social life.

Third, enhancing visual appeal, vividness, and interactivity. Materials should incorporate diverse formats, including text, diagrams, videos, graphics, simulation scenarios, and discussion questions, to stimulate students' interest in learning and encourage active participation in the learning process.

Fourth, effectively supporting students' self-study and self-research activities. The material system should be designed to be open and flexible, allowing learners to actively choose content, look up information, review, and expand their knowledge based on individual needs and capabilities.

Fifth, adapting to digital transformation trends and current learner characteristics. Today's students tend to learn on digital platforms, preferring speed, convenience, and personalization. Thus, the learning material system needs to leverage scientific and technological achievements, especially artificial intelligence, to meet new demands in higher education.

Artificial intelligence plays an important role in meeting the requirements of learning materials by supporting the development of intelligent and highly adaptive learning material systems. AI enables the systematic organization of learning resources, personalizes content according to learners' needs, enhances interaction, and provides timely feedback. As a result, abstract content in Political Theory and General Law can be presented in a more engaging and accessible manner while maintaining content quality, curricular consistency, and appropriate educational orientation.

2.3. Application of Artificial Intelligence in Developing Teaching Material Systems

The application of artificial intelligence in developing teaching material systems for Political Theory and General Law represents an innovative approach that is consistent with the requirements

of higher education reform and digital transformation. AI facilitates the systematic organization, development, and delivery of learning resources in a flexible and learner centered manner. It also provides valuable support for lecturers in teaching, learning management, assessment, and the continuous improvement of instructional materials.

First, personalizing learning materials according to students' learning needs

A major advantage of AI in education is its capacity to support personalized learning. By analyzing learning data, including students' participation, assessment results, learning progress, and level of knowledge acquisition, AI systems can identify individual learning needs and recommend appropriate materials and learning activities.

Personalized learning is particularly relevant to Political Theory and General Law because students differ in their prior knowledge, cognitive abilities, learning pace, and level of interest. Students with strong theoretical reasoning skills can be directed toward advanced materials and more challenging learning tasks, while students who experience difficulties can receive additional explanations, examples, and supplementary resources. This approach allows learning activities to be better adapted to individual needs and reduces the limitations of uniform teaching approaches.

Second, enhancing the interactivity and attractiveness of learning materials

AI can contribute substantially to making teaching materials more interactive, engaging, and accessible. Virtual learning assistants, intelligent question and answer systems, interactive exercises, and simulation activities allow students to actively explore content, raise questions, receive explanations, and participate in learning activities throughout the study process.

For subjects containing substantial abstract and theoretical content, AI can also support the presentation of knowledge through mind maps, visual illustrations, practical examples, and simulated situations. These approaches can help students develop a clearer understanding of concepts, principles, and legal provisions while strengthening their ability to connect theoretical knowledge with practical situations.

Third, supporting students' self study and independent learning

An AI integrated teaching material system can provide effective support for students' self study and independent learning. AI can assist students in searching for relevant information, organizing and reviewing knowledge, identifying supplementary resources, generating practice questions, and highlighting areas that require further study.

For Political Theory and General Law, the development of independent learning is particularly important because students need to develop theoretical thinking, analytical skills, and the ability to relate academic knowledge to contemporary social and legal issues. Through flexible access to learning resources and timely learning support, AI can encourage students to take greater responsibility for their learning and broaden their knowledge beyond classroom instruction.

Fourth, supporting assessment, evaluation, and learning feedback

AI can also enhance the assessment and evaluation functions of teaching material systems. It can support the development of question banks, online assessments, learning progress monitoring, analysis of assessment results, and the provision of timely feedback. These functions enable assessment to become a continuous part of the learning process rather than an activity conducted only at the end of a course.

The analysis of learning results can provide lecturers with useful information about students' strengths, difficulties, and learning progress. Based on this information, lecturers can adjust teaching content and instructional approaches when necessary. At the same time, students can better understand their learning limitations and develop appropriate strategies for improvement. In Political Theory and General Law, continuous assessment is particularly valuable because learning outcomes involve not only knowledge acquisition but also the development of appropriate awareness, analytical abilities, and the capacity to apply theoretical and legal knowledge to practical situations.

The application of artificial intelligence in developing teaching material systems should not be understood as a replacement for lecturers.

Instead, AI functions as a supportive technology that enhances the effectiveness of teaching and learning. Lecturers continue to play the central role in determining learning objectives, selecting and evaluating content, ensuring academic accuracy, designing instructional activities, and guiding students throughout the learning process.

The effectiveness of AI therefore depends on appropriate human supervision and pedagogical guidance. Lecturers and educational institutions remain responsible for reviewing AI generated content, maintaining the accuracy and reliability of teaching materials, and ensuring that the materials are consistent with curricular requirements and educational objectives. When appropriately designed and supervised, AI can strengthen the quality, flexibility, interactivity, and accessibility of teaching material systems while preserving the essential role of lecturers in higher education

2.4. AI Based Learning Material System Model for Teaching

Based on the theoretical and practical foundations discussed above, an AI based learning material system can be developed to support the teaching of Political Theory and General Law. The proposed model integrates digital learning resources, intelligent data processing, interactive learning functions, and assessment and feedback mechanisms within a unified system. These components are interconnected to provide timely learning support, facilitate personalized learning, and assist lecturers in organizing and monitoring the teaching process.

The model is designed in response to the specific characteristics of Political Theory and General Law, which require students to understand abstract concepts, analyze theoretical perspectives, interpret legal provisions, and relate knowledge to practical situations. Therefore, the system should not merely provide digital versions of existing materials. It should create an interactive learning environment in which teaching resources can be continuously updated, intelligently organized, and adapted to students' learning needs.

2.4.1. Overall Structure of the AI Based Learning Material System

The proposed system consists of four interconnected components.

First, the digital learning resource repository. This component provides the core knowledge base of the system, including electronic textbooks, lecture materials, reference documents, legal documents, lecture videos, mind maps, infographics, and practical political and legal cases. The resources should be systematically organized and regularly updated to ensure accuracy, relevance, consistency with the curriculum, and alignment with course learning objectives.

Second, the AI based learning data processing and analytics system. This component collects and analyzes information generated during the learning process, including student interactions, assessment results, learning progress, and patterns of content engagement. Based on these data, AI can identify individual learning needs and provide recommendations for appropriate learning materials, learning activities, and areas requiring further study.

Third, the intelligent interaction system. This component facilitates interaction among students, learning resources, and lecturers through virtual learning assistants, intelligent question and answer functions, online discussions, and simulated situations. In Political Theory and General Law courses, such functions can help students clarify complex concepts, explore different situations, and connect theoretical knowledge with practical issues.

Fourth, the assessment and feedback system. This component supports the development of question banks, online assessments, learning progress monitoring, and automated analysis of assessment results. The system can provide timely feedback to students and generate useful information for lecturers to identify learning difficulties and adjust instructional content and methods.

2.4.2. Basic Principles for Constructing the Model

The development and implementation of the AI based learning material system should follow several fundamental principles.

First, maintaining the central role of lecturers. AI should function as a supportive technology rather than a substitute for lecturers. Lecturers remain responsible for determining learning objectives, selecting and reviewing teaching content, organizing instructional activities, and ensuring the quality and accuracy of learning materials.

Second, ensuring content accuracy and educational consistency. Learning materials generated or supported by AI must be reviewed and validated to ensure their accuracy, reliability, and consistency with approved curricula, educational objectives, relevant legal provisions, and institutional requirements. Particular attention should be given to preventing inaccurate, outdated, or misleading information from being incorporated into teaching materials.

Third, ensuring flexibility and scalability. The system should allow learning resources, assessment content, and learning activities to be updated and expanded in response to changes in curricula, legal regulations, practical requirements, and technological developments. A flexible architecture will also facilitate the integration of new AI functions and educational technologies in the future.

Fourth, ensuring usability and accessibility. The system should provide an intuitive and user-friendly interface that enables both lecturers and students to access, search, interact with, and utilize learning resources conveniently. The design should take into account differences in users' technological skills and learning needs.

2.4.3. Role and Value of the Proposed Model

The proposed AI based learning material system provides a foundation for transforming teaching and learning in Political Theory and General Law from a predominantly content delivery approach toward a more interactive, flexible, and learner centered model. By integrating learning resources, intelligent interaction, personalized recommendations, and continuous assessment within a single system, the model can enhance students' engagement, support independent learning, and strengthen their ability to connect theoretical knowledge with practical situations.

At the same time, the model provides lecturers with additional tools for organizing teaching, monitoring learning progress, evaluating learning outcomes, and improving instructional materials. AI therefore serves as an enabling technology that complements rather than replaces the pedagogical role of lecturers. When implemented with appropriate academic oversight and quality assurance, the model can contribute to the development of a more responsive and digitally enabled learning environment in higher education.

2.5. Significance and Issues Arising During Implementation

The application of artificial intelligence in developing learning material systems for Political Theory and General Law has important implications for improving teaching quality and supporting higher education reform in the context of digital transformation. By integrating intelligent technologies into the development, organization, delivery, and evaluation of learning resources, AI can enhance the accessibility, flexibility, and effectiveness of teaching and learning. At the same time, the implementation process raises several issues related to content quality, technological capacity, pedagogical practice, and institutional governance that require appropriate attention.

2.5.1. Significance of AI Application in Learning Material Systems

First, improving teaching quality and supporting students' understanding. AI based learning material systems can contribute to improving learning effectiveness by providing personalized resources, supporting self study, and presenting abstract theoretical content through diverse and interactive formats. These functions can help students develop a clearer understanding of theoretical concepts and legal principles while strengthening their ability to relate academic knowledge to practical situations. In Political Theory and General Law, such improvements can also contribute to the development of theoretical thinking, political awareness, and legal consciousness.

Second, supporting instructional management and continuous assessment. The integration of AI provides lecturers with additional tools for organizing learning activities, monitoring student progress, and evaluating learning outcomes. Through the collection and analysis of learning data, AI can provide information about students' participation, learning progress, assessment performance, and areas of difficulty. Such information enables lecturers to make more timely adjustments to teaching content, learning activities, and instructional methods. AI therefore has the potential to strengthen the connection between teaching, assessment, and learning support.

Third, contributing to digital transformation in higher education. The development of AI based learning material

systems represents an important direction for the digital transformation of higher education. Rather than simply converting traditional materials into digital formats, AI enables learning resources to become more dynamic, interactive, and responsive to learner needs. Its application in Political Theory and General Law can therefore contribute to the modernization of teaching practices and the development of digitally supported learning environments across higher education institutions.

2.5.2. Issues and Challenges Arising During Implementation

Despite these potential benefits, the implementation of AI based learning material systems also presents several challenges that require systematic solutions.

First, ensuring the accuracy, reliability, and educational appropriateness of learning content. Political Theory and General Law require a high level of accuracy because learning materials must be consistent with approved curricula, relevant legal provisions, and institutional educational objectives. AI generated content may contain factual errors, outdated information, inappropriate interpretations, or insufficiently contextualized explanations. Therefore, AI should not be allowed to operate independently in the development of teaching materials. Human review, academic verification, and appropriate quality assurance procedures are essential throughout the process.

Second, addressing differences in digital competencies and technological infrastructure. The effectiveness of AI application depends considerably on the digital competencies of lecturers and students as well as the availability of appropriate technological infrastructure. Differences in digital skills, access to technological resources, data management capacity, and institutional investment may result in unequal implementation outcomes. Professional development and appropriate infrastructure are therefore necessary to ensure that AI based learning systems can be used effectively and sustainably.

Third, maintaining an appropriate balance between technology and pedagogical interaction. AI should enhance rather than replace human interaction in the educational process. Excessive dependence on automated systems may reduce

direct communication between lecturers and students and weaken opportunities for discussion, reflection, and contextual interpretation. This issue is particularly important for Political Theory and General Law, where teaching involves not only the transmission of knowledge but also the development of analytical thinking, values, attitudes, and the ability to apply knowledge responsibly. The role of lecturers therefore remains essential in guiding discussion, interpreting complex issues, and providing appropriate educational support.

Fourth, establishing mechanisms for AI governance and responsible use. The introduction of AI into teaching requires clear institutional guidelines concerning the selection of AI tools, the development and verification of learning materials, data management, academic integrity, and the responsibilities of lecturers and students. Appropriate governance mechanisms can reduce potential risks associated with inaccurate information, inappropriate use of AI, data security, and excessive dependence on automated outputs. Institutions should therefore develop clear procedures for monitoring, evaluating, and continuously improving AI based learning material systems.

Overall, the application of AI in developing learning material systems for Political Theory and General Law offers considerable potential for improving the quality, flexibility, and accessibility of higher education. Its value lies not only in the technological enhancement of learning resources but also in its capacity to support personalized learning, strengthen instructional management, and promote more interactive approaches to teaching. However, the effectiveness of AI depends on the conditions under which it is implemented. Content accuracy, lecturer competence, technological infrastructure, pedagogical balance, and institutional governance must be addressed simultaneously. AI should therefore be regarded as a supportive educational technology that operates under appropriate human supervision rather than as an autonomous substitute for lecturers. Establishing these conditions will provide an important foundation for the responsible, effective, and sustainable application of AI in Political Theory and General Law education.

3. CONCLUSION

In the era of educational digital transformation and technological advancement, innovating instructional methodologies in Political Theory and General Law is an objective and pressing necessity. This research demonstrates that applying AI to build learning resource systems significantly enhances teaching and learning efficacy, opening new avenues for modern, flexible political and legal education.

By examining theoretical foundations, practical realities, and subject specificities, the paper highlights AI's core capabilities in content personalization, interactive learning, continuous evaluation, and autonomous study support. When implemented scientifically and systematically, AI-driven resource systems overcome traditional pedagogical constraints and foster comprehensive student development. However, AI deployment in political and legal disciplines must remain strictly aligned with Party and State ideological guidelines, backed by robust content vetting, continuous teacher professional development, and sound policy frameworks. Moving forward, further research into technical architecture, implementation frameworks, and governance mechanisms will be essential to fully leverage AI potential in higher education.

NOTES: Author's information: Pham Thi Thu Huong, Dang Thi Thu Phuong: Department of Political Theory, Faculty of General Education, Nam Dinh University of Technology Education, Vietnam. Email: phamhuongnute@gmail.com.

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