

**PEDAGOGICAL OPPORTUNITIES AND CHALLENGES OF USING ARTIFICIAL  
INTELLIGENCE IN TEACHING POLITICAL SCIENCE**

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**Abstract**

This article examines the pedagogical opportunities and challenges of using artificial intelligence in teaching political science. In recent years, generative AI tools have entered education rapidly and have raised new questions about teaching methods, assessment formats, written assignments, academic integrity, and students' independent thinking. UNESCO's guidance on generative AI in education emphasizes a human-centered approach, data privacy, and pedagogically grounded use, while OECD work suggests treating AI both as a tool for learning and as a subject of learning. Research focused specifically on political science education shows that AI can be useful for copyediting, structuring ideas, and clarifying concepts, but also creates serious risks for written assessment, independent analysis, source criticism, and academic integrity. On this basis, the article identifies the main opportunities, limitations, and methodological directions for the responsible use of AI in political science teaching.

**Keywords:** political science, artificial intelligence, generative AI, pedagogy, higher education, academic integrity, critical thinking, political analysis, digital literacy, assessment.

**Introduction**

Digital transformation has opened a new stage in higher education, including the teaching of social sciences and humanities. Artificial intelligence tools are no longer just technical assistants; they can now generate text, answer questions, summarize arguments, restructure content, and support more individualized learning pathways. UNESCO's 2023 guidance states that generative AI creates major opportunities for education and research, but also raises urgent concerns about privacy, regulation, teacher preparedness, and ethical use. OECD's 2025 work on AI adoption in education likewise argues that AI should be seen both as a learning tool and as an object of learning, because students need to understand not only how to use it, but also how it affects society and institutions.

This issue is especially important in political science. Political science teaching is not limited to remembering facts; it depends on argumentation, interpretation, comparison of competing viewpoints, evaluation of evidence, and critical reading of sources. For that reason, AI can have a double effect in this field. On the one hand, it can support explanation, brainstorming, and structured discussion. On the other hand, it can encourage superficial analysis, ready-made arguments, and dependence on generated text in tasks that are supposed to assess independent political reasoning. A 2024 study in PS: Political Science & Politics shows that generative AI has already affected teaching, learning, and assessment practices in political science education. [3].

The purpose of this article is to analyze the pedagogical opportunities and challenges of using artificial intelligence in teaching political science and to propose methodological directions for its responsible and effective integration into the educational process. [1], [2], [3], [4], [5].

**Literature Review**

The recent literature on AI in education develops along three main lines. The first line concerns general pedagogical and ethical principles. UNESCO's guidance stresses human-centered use, privacy protection, institutional regulation, and pedagogically appropriate

deployment of generative AI. OECD's education work broadens this view by linking AI adoption to teaching practice, curriculum design, skills development, and system-level change. These sources treat AI not simply as a convenience tool, but as a development that affects the purposes and structure of education itself. [1], [2].

The second line of research focuses specifically on political science education. Wu and Wu's 2024 article analyzes two American Political Science Association surveys and finds that political science instructors tend to view the overall impact of generative AI somewhat negatively, although they see limited benefits in tasks such as copyediting and formatting. The same study reports that respondents distinguished bot-written text from student-written text only with about 45% to 53% accuracy, which is close to random guessing. This finding is especially important because it suggests that simple detection-and-punishment strategies are unlikely to solve the educational challenges created by generative AI. [3].

The third line addresses practical classroom experimentation. Rivetti, Banerjee, and O'Mullane report an eight-week laboratory experiment conducted from October to December 2023 with first-year social and political science students at Dublin City University. Their study shows that ChatGPT can create pedagogical value in international relations teaching, but only when its limitations are recognized and carefully managed. Michels likewise argues that AI should not be viewed only as a threat to academic honesty; it should also be approached as a tool that students will need to use critically and professionally in the future. [4], [5].

### **Analysis and Discussion**

#### **1. Pedagogical opportunities**

The first major opportunity is conceptual support and individualized explanation. In political science, students often struggle with abstract concepts such as legitimacy, sovereignty, representation, ideology, realism, liberalism, or democratic accountability. AI tools can explain the same concept at different levels of difficulty, generate examples, compare schools of thought, and answer follow-up questions interactively. UNESCO's guidance suggests that generative AI can support learning when it is used in a pedagogically grounded and human-supervised way. [1].

A second opportunity is support for preparatory stages of writing and analysis. In the Wu and Wu study, political science instructors were more positive about AI in tasks like copyediting and formatting than in core analytical writing. This suggests that AI can be used productively for outlining, reorganizing arguments, clarifying phrasing, or generating discussion prompts, while the substantive political analysis remains the student's own task. Michels makes a similar point by arguing that students need to learn how to work with AI as a professional tool rather than simply avoid it. [3], [5].

A third opportunity is enrichment of simulations, scenarios, and classroom interaction. Political science and international relations teaching frequently uses role-play, negotiation exercises, policy simulations, and case-based discussion. Rivetti and colleagues show that AI can be used in classroom experiments to support reflection, alternative scenarios, and structured engagement in international relations courses. In political science more broadly, this means AI can help generate competing positions, model institutional actors, or simulate policy responses, making discussion more active and exploratory. [4].

A fourth opportunity is AI literacy as civic and disciplinary learning. OECD's educational perspective is especially valuable here because it frames AI not only as a tool for doing schoolwork, but also as content that students should understand. Political science is particularly well suited for this. Students can study how AI affects public administration, political

communication, elections, disinformation, surveillance, public ethics, and democratic accountability. In this sense, the use of AI in class can itself become part of political science learning. [2].

## 2. Pedagogical challenges

The first and most serious challenge is academic integrity and the weakening of independent thinking. Political science assignments are often designed to assess how students construct arguments, evaluate evidence, compare positions, and write analytically. If AI provides ready-made structures and plausible-sounding prose, it can mask the absence of genuine understanding. Wu and Wu's findings are especially important because they suggest that instructors cannot reliably distinguish AI-generated text from student text, which undermines traditional assumptions about take-home writing tasks. [3].

The second challenge is source criticism and factual reliability. Political science depends heavily on accurate references, contextual reading, and careful interpretation of evidence. UNESCO warns that the rapid development of generative AI has outpaced regulation and quality safeguards in many educational settings. In practice, this means students may receive fabricated references, inaccurate summaries, or ideologically skewed formulations if they rely on AI output uncritically. In political science, where context and nuance matter greatly, such errors can seriously distort learning outcomes. [1].

The third challenge is assessment design. If essays, short analytical responses, or homework tasks can be generated or heavily shaped by AI, then traditional written assessment formats lose some of their value as evidence of student learning. Wu and Wu report that many instructors have responded more through enforcement than through deep redesign, but their own results suggest that detection alone is not enough. This creates pressure to redesign assessment toward staged writing, oral defense, in-class analysis, source-based exercises, and process-oriented evaluation. [3].

The fourth challenge is the changing role of the instructor. AI shifts the teacher's role from information provider toward facilitator, curator, moderator, and guide to critical inquiry. Michels argues that instructors should use AI intentionally rather than react to it only defensively. That requires new competencies: knowing when AI use is pedagogically appropriate, how to design tasks that still assess authentic reasoning, and how to teach students to verify, question, and refine AI-generated outputs. [5].

**Table 1.**

### Main opportunities and challenges of AI in teaching political science

Dimension	Opportunities	Challenges
Teaching process	Clarifies concepts, supports personalized explanation	Can encourage dependence on ready-made answers
Writing support	Helps with structure, editing, and brainstorming	Threatens originality and academic integrity
Analysis and simulation	Enriches scenarios, debates, and role-play	May produce shallow or stereotyped responses
Assessment	Encourages redesign toward process and interaction	Weakens the reliability of traditional take-home tasks
Professional preparation	Builds AI literacy and future-oriented skills	Requires new ethical and methodological training

*Source: developed by the author on the basis of [1]–[5].*

#### Methodological Directions for Improvement

The first direction is managed pedagogical integration rather than absolute prohibition. For political science, the most reasonable approach is not a total ban on AI, but a clearly structured policy defining where its use is allowed, where it is limited, and how it must be disclosed. UNESCO and OECD both point to the importance of governance, ethical standards, and pedagogical design in managing AI use responsibly. [1], [2].

The second direction is assessment redesign. Political science instructors should assess not only the final written product but also the reasoning process behind it. This can include topic proposals, source maps, argument outlines, draft stages, peer feedback, oral defense, and in-class analytical exercises. Such an approach makes it harder to outsource the intellectual core of the task to AI and better reveals actual student understanding. Wu and Wu's findings make this redesign especially urgent. [3].

The third direction is embedding AI literacy into the curriculum. Political science students should learn not only how to use AI tools, but also how to assess them critically. This includes checking factual accuracy, evaluating bias, questioning source quality, and understanding AI's effects on public life. OECD's treatment of AI as both a tool and a subject of learning supports this integrated curricular approach. [2].

The fourth direction is teacher professional development. Instructors need preparation in AI use, prompt design, fact-checking, ethical guidelines, and assessment adaptation. Without pedagogical competence on the part of teachers, AI is likely to create superficial convenience rather than deeper learning. Michels' argument for purposeful teaching with AI is especially relevant here. [5].

#### Conclusion

The analysis shows that artificial intelligence in political science education is both a significant pedagogical opportunity and a serious methodological challenge. It can support concept explanation, writing preparation, simulation, and AI literacy, but it also raises difficult questions about academic integrity, source reliability, assessment validity, and the preservation of independent political reasoning. UNESCO, OECD, and recent political-science education research all suggest that the answer is neither uncritical enthusiasm nor blanket prohibition. [1], [2], [3], [4], [5].

The most appropriate model for political science teaching is a controlled, transparent, and pedagogically purposeful use of AI. Technology should not replace the central aims of the discipline: critical thinking, argumentation, source evaluation, and reflective civic understanding. Instead, AI should be integrated in ways that strengthen those aims while preserving human judgment at the center of teaching and learning.

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