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AI Governance and the Development of AI Literacies in Higher Education: A Thematic Analysis

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Abstract:

Higher education institutions face mounting pressure to integrate artificial intelligence (AI) into academic programs while establishing governance structures that are both responsible and adaptable. Yet empirical research on how academic leaders actually navigate AI governance decisions remains limited. This study uses a thematic analysis of 16 published works on AI literacies frameworks plus preliminary survey findings to examine two questions: How do academic leaders navigate and make decisions about AI governance? And how does the development of AI literacies relate to AI governance decision-making? Drawing on the AI Education Policy and Practice Framework (Gunder, 2025; WCET, 2025) and the Dimensions of AI Literacies taxonomy (Gunder, 2024; Gunder et al., 2024), the analysis reveals that governance efforts cluster around three themes: policy and ethics, leadership and culture, and institutional accountability. Findings indicate that governance activities both employ and develop AI literacies at the institutional level, particularly Civic, Critical, Cultural, and Cognitive AI Literacies. The study also identifies persistent challenges, including fragmentation of governance structures and tension between the urgency of AI adoption and the risk of premature policy. The paper concludes with opportunities for creating durable, transparent, and inclusive governance practices that position AI literacy development as integral to institutional strategy.

Keywords: AI literacies, AI governance, higher education, thematic analysis, institutional decision-making

Introduction

Higher education was not prepared for the rise of artificial intelligence (AI). Most jobs now require some degree of proficiency with generative and agentic AI, and students are expected to have workforce-relevant technological competences along with academic competencies upon graduation. To appropriately prepare students for their careers, institutions find themselves in the position of needing to integrate AI use into academic programs, yet grappling with the breadth and magnitude of change required. To effectively guide and reshape institutional systems, processes, and practices, many academic leaders are investing time and resources to develop AI governance strategies in response to the changes taking place.

For the purposes of this study, AI governance refers to the institutional structures, policies, decision-making processes, and accountability mechanisms that guide how AI is selected, used, evaluated, and communicated across an educational setting. The findings presented in this paper are part of a larger study designed to situate the issue of AI governance within the larger context of AI literacies development. AI literacies refer to the mindsets and skillsets as well as dispositions that individuals, institutions, and other groups need in order to understand, use, question, and engage with AI responsibly. Put simply, governance defines the conditions for responsible AI use, while AI literacies describe the capacities people need to participate in and enact that responsibility.

The overarching goal of the larger study is to establish evidence-based processes and practices for strategic and responsible decision-making related to AI use that ultimately enhance the learning experience for students (and better prepare them for the demands of their future careers). The present study uses data collected in the initial stages of the larger study. The following research questions guided the analysis and interpretation of the data for this study:

- How do academic leaders navigate and make decisions about AI governance?
- How does the development of AI literacies relate to AI governance decision-making?

Review of the Relevant Literature

Given the dearth of empirical literature related to AI governance in higher education, the present study draws upon the previous work of the research team as a theoretical foundation. In particular, the research builds upon the WCET AI Education Policy and Practice Framework, put forth by the WICHE Cooperative for Educational Technologies (WCET) and the Dimensions of AI Literacies taxonomy put forth by Opened Culture (Gunder, 2024; Gunder et al., 2024; Gunder, 2025; WCET, 2025).

The WCET AI Education Policy and Practice Framework acts as a strategic roadmap to help institutions build adaptable AI policies and includes three core domains for the ethical and responsible use of AI: governance, operations, and pedagogy (Gunder, 2025; WCET, 2025). The present study focuses on the domain of governance, which is "how institutions define their visions and values for AI use, make decisions about risk, and communicate shared responsibility across roles," (p. 8). Gunder describes the domain of governance as encompassing policy and ethics (e.g., responsible AI adoption), leadership and organizational culture (e.g., clarity, shared leadership, and alignment between goals and practices), and accountability (transparent processes and inclusion of all voices).

The Dimensions of AI Literacies taxonomy (see Table 1) is based on the work of Belshaw (2014). Belshaw argued that the development of digital literacies are non-linear and emerge progressively across eight diverse, interconnected dimensions that are relevant in any educational context. Gunder et al. (2024) and Gunder (2024) adapted Belshaw's dimensions to be specific to AI literacies. Gunder et al. described AI literacies as being akin to a constellation "–a grouping of skillsets and mindsets that, when connected, help us navigate the complex realities of AI in education," which enables consideration of the technical use of AI along with "the ethical, social, and cultural implications" (para.1). Therefore, AI literacies should be understood as co-emergent, co-evolving practices that are shaped by sociocultural practices. Further, AI literacies can be expressed individually or collectively. For instance, one can examine the collective AI literacies at the level of a committee, an institution, a region, or amongst individuals who share a common role (Gunder, 2024).

Table 1: Dimensions of AI Literacies

AI Literacies	Description
Cultural AI Literacies	Recognizing the connections between people, AI-informed resources and tools, and points of engagement within AI tools and AI-enabled environments.
Cognitive AI Literacies	Expanding intellectual capabilities by engaging with AI-enabled processes and environments.
Constructive AI Literacies	Utilizing AI tools to build, remix, and generate new content, applying AI capabilities.
Communicative AI Literacies	Leveraging AI technologies to convey ideas effectively, recognizing the sociocultural practices and nuances that AI interprets and influences in different settings.
Confident AI Literacies	Developing the ability to solve problems and manage learning within AI-driven environments by understanding and harnessing their unique features and potentials.

Creative AI Literacies	Engaging in ideation and generative actions using AI, focusing on how AI can add value and introduce new possibilities within specific contexts.
Critical AI Literacies	Examining the power dynamics and ethical considerations inherent in AI practices, reflecting on the broader societal impacts of AI-driven decisions and actions.
Civic AI Literacies	Employing AI knowledge and skills to contribute positively to society, using AI to foster community empowerment, engagement, and societal progress.

Within an AI landscape that is complex and demands multi-unit collaboration for governance at higher education institutions (Wu et al., 2024), the WCET AI Education Policy and Practice Framework and the Dimensions of AI Literacies taxonomy offer structure to help both participants and the research team capture the breadth of decision-making demands in a still-emergent AI landscape.

The research team conducted a thematic analysis of the research on existing AI literacies frameworks, which provided the foundation for a survey specific to AI literacies and governance. As this study is situated within a larger study, which uses a grounded theory approach, the findings of the thematic analysis and the preliminary survey findings, along with responses and reactions to the findings, will become enfolded into the ongoing iterative cycle of the greater research work.

Methods

Data Collection

Thematic Analysis of the Research

The research team conducted a search for AI literacies frameworks using the Internet, Google Scholar, and academic databases. The results yielded 49 published works, 16 of which were suitable for review and included in the thematic analysis.

Survey on AI Literacies and Governance

Starting on April 27, 2026, the research team sent out a survey to their academic networks using email and social media as means of distribution. Supporting organizations (including Every Learner Everywhere, APLU, Opened Culture, Canadian Digital Learning Research Association, Academic Innovation Alliance, WCET) who are supporting the research work also sent out email notifications to their networks. The survey data analyzed for the purposes of this paper came from 46 respondents who commented on five open-ended questions that had been submitted by May 8, 2026:

- What have been the most significant challenges your institution has faced in developing or implementing AI governance? (n=34)
- What has worked well at your institution regarding AI governance? What are you most proud of? (n=32)
- With the benefit of hindsight, what would you have done differently in your institution's approach to AI governance? (n=33)
- Looking ahead, what are your institution's priorities for AI governance over the next 1 to 2 years? (n=33)
- Are there areas where you feel your institution needs to build greater knowledge or capacity to make better AI governance decisions? If so, please describe. (n=18)

Participants

Participants included administrators, faculty, and other institutional staff, such as directors of teaching and learning centres, AI initiatives, and institutional research. Most participants were from the United States, however, there were several respondents from other countries including Australia, Canada, Egypt, Israel, and the United Kingdom. Most participants worked at universities, both public and private.

Validity and Reliability Measures

Two members of the research team performed independent initial analyses of the research on AI literacies frameworks, and the same two team members also performed an initial analysis of the survey findings. In both instances, one researcher created a summary of their findings related to governance, which the second researcher reviewed and built upon. The WCET AI Education Policy and Practice Framework and Dimensions of AI Literacies taxonomy were used by the researchers as common structures for the development of priori codes. The full research team worked collaboratively to iteratively review the findings and the resulting interpretations until consensus was reached.

Limitations

The research presented in this paper represents the initial exploratory portion of a larger study. Thus, the findings are not generalizable. Further interviews, focus groups, and call for reflections may reveal additional aspects of AI governance decision-making that have not yet been captured in literature or the preliminary survey findings. Additionally, the lack of other empirical studies on AI governance decision-making in higher education prevents the comparison of our findings to similar studies.

Results and Discussion

The objective of a grounded theory approach is not to quantify the occurrences of identified themes to identify what is more or less prevalent in the data. Rather, the goal is to ensure thematic saturation and conceptual depth in a way that places equal importance on prevalent and outlier themes. For this reason, the discussion of the results is focused on what emerged in the findings (both within the literature and the preliminary survey findings) in relation to the analytical frameworks, and not how often any particular finding appeared.

How do academic leaders navigate and make decisions about AI governance?

The WCET AI Education Policy and Practice Framework (Gunder, 2025; WCET, 2025) served as the analytical tool to understand how academic leaders navigate and make decisions about AI governance. Table 2 lists the three governance themes put forth in the framework. Examples of AI governance policies and practices were sorted by theme and included in the table,

Table 2: Examples of Governance Themes

Governance Theme	**Examples**
Policy and Ethics Includes · Policies governing acceptable use · Data privacy · Transparency · Accountability grounded in institution mission and ethical commitments	· Leveraging and extending existing policies and practices (e.g., plagiarism guidelines, data governance, IT security protocols) · Guidelines and policies related to acceptable tools, vendors, best practices, and use cases · Privacy and security policies · Provision of AI tools to ensure student access · Using closed AI platforms · Policies for AI oversight · Defining and assessing roles and access related to institutional data · Environmental stewardship · Embedding inclusive design principles when integrating AI use · Strategies for reducing and navigating AI bias
Leadership and Culture Includes · Fostering an environment where leadership models openness, transparency, and continuous learning · Cultivating a culture that supports experimentation and trust	· Designated and centralized AI leaders and decision makers · Clear and concise communication of guidelines and information related to AI use (including fostering a shared understanding of terminology) · Opportunities for connection and collaboration · The creation of shared spaces for housing and revising resources (and strategies for informing people of resources)

	· Inclusion of many voices and diverse perspectives in discussions on AI · Provision of training and professional development for AI use · A holistic perspective that considers how AI is used and needs to be supported across the institution · Destigmatization of AI use · Managing interpersonal tensions related to different opinions about whether and how AI should be used
Institutional Accountability Includes: · Establishing structures and processes to monitor, evaluate, and update policies and practices as technologies evolve	· AI task forces, advisory bodies, and committees to iterate, create, review, and revise policy · Monitoring AI usage · Curriculum development to integrate AI use into courses · Connecting AI training and use to evolving workforce demands · Assessing legal and compliance landscapes · Compliance with external AI policies and regulatory obligations (e.g., government legislation)

Along with providing examples of policies and practices that were (or should be) put into place, the frameworks and participants also described opportunities and challenges related to AI use. Ultimately, institutions are encountering a complex array of challenges as they work to establish sound governance around AI. A consistent challenge was fragmentation: governance efforts were often siloed among IT departments, faculty groups, and administrative offices without a unified, enduring structure to carry them forward. Many institutions created ad hoc task forces or councils to write initial guidance, but these groups frequently lost momentum—sometimes dissolving entirely once the immediate urgency passed or faculty rotated off for summer terms. Even where working groups existed, ownership and accountability for AI policy remained unclear, contributing to uneven adoption and a lack of clarity about authority. Leaders also reported deep tension between the need to move swiftly—given rapid AI adoption—and a fear that premature or overly rigid policies could stifle innovation, create resentment, or become obsolete. This tension often led to hesitation or piecemeal policy updates, such as modifying acceptable use policies temporarily rather than designing more robust, comprehensive governance frameworks. As one participant said, "Governance across our institution is poor and disconnected from strategy. This makes for a poor foundation for new governance structures. Governance is often undone by a lack of formal authority, workarounds to go around governance, uncooperative faculty, and lack of leadership from senior administration tying governance to operations, strategy, budgeting, etc."

Despite these challenges, the findings showed that institutions were taking promising steps. One participant described their institution's approach to AI governance "through a 'sensemaking' framework, knowing that we can't be certain in all things, but that we have to move forward to the best of our ability." More broadly, the literature and survey participants mentioned developing campuswide AI guidelines or drafted AI integrity statements to clarify expectations. Others invested in cross-functional AI steering committees that brought together IT, faculty development centers, libraries, legal counsel, and student affairs to guide decision-making and create shared language. Several institutions were actively working to update data security and external data transfer policies to account for AI-specific risks. Some were using existing governance bodies like analytics leadership teams, faculty development committees, or academic senates as vehicles for iterating policy and ensuring alignment with institutional culture. A few institutions were working to embed governance practices into everyday operations by integrating AI oversight into promotion and tenure discussions or by linking AI policy to student conduct codes and syllabi.

Overall, academic leaders are navigating and making decisions about AI governance in comprehensive and collaborative ways across their institutions. Although challenges persist there is strong indication that ethical issues are being prioritized in policy, leaders are developing and implementing collaborative strategies developing a culture that supports responsible AI use, and accountability measures are being put into place.

How does the development of AI literacies relate to AI governance decision-making?

For the purposes of this study, the Dimensions of AI Literacies taxonomy was applied at the institutional level. In other words, the researchers did not analyze the development of participants' individual AI literacies, rather they examined which dimensions were being employed and developed at participants' institutions.

AI Literacies Employed

The activities described show clear evidence of certain AI Literacies dimensions already in use—most notably Civic AI Literacies (engaging diverse stakeholders to shape ethical norms and policies) and Critical AI Literacies (examining the power structures, risks, and biases inherent in AI systems). Where institutions have included broad representation on steering committees or held open forums, they are demonstrating Cultural AI Literacies, fostering shared understanding and open participation. The emphasis on vendor vetting, data security, and transparency also illustrates Cognitive AI Literacies—the capacity to understand and evaluate how AI tools function within institutional systems.

AI Literacies Developed

At the same time, these efforts are helping institutions gain and grow new literacies. The collaborative drafting of policies and creation of AI review processes nurture deeper Confident AI Literacies, as leaders and practitioners build self-assurance in evaluating AI risks and benefits. The growing awareness of equitable access and the need to address affordability constraints also signals a developing commitment to Civic and Cultural AI Literacies. Additionally, efforts to align governance practices with evolving compliance requirements are expanding Critical AI Literacies across leadership teams.

Opportunities for Innovation and Growth

These findings point to several opportunities for educators and leaders seeking to strengthen AI governance. First, there is a clear need to create governance structures that are both permanent and adaptable—standing committees rather than short-lived task forces—so that policies can evolve over time without losing institutional memory or momentum. Second, institutions can benefit from making transparency and communication central to governance, ensuring that decisions and rationales are documented, easily accessible, and regularly updated. Third, governance efforts should deliberately incorporate student perspectives and access considerations, so policies don't default to the priorities of the most resourced or technologically confident constituencies. Finally, institutional decision-makers can position governance as an opportunity for collective capacity-building, using policy development itself as a way to advance shared literacy, reduce stigma around AI experimentation, and foster a culture of ethical, responsible innovation.

Areas for Future Research

Although this study focused on institutional-level AI literacies, a case study analysis that explored individual-level AI literacies among institutional decision-makers could provide additional insights about the relationship between AI literacies and decisions about AI governance. Similarly, case study comparisons between senior administrators and individuals in other roles may help deepen our understanding of AI governance and the development of AI literacies.

Conclusion

This study examined how academic leaders navigate AI governance and how the development of AI literacies relates to governance decision-making. Through a thematic analysis of published works on AI literacies frameworks along with the preliminary results from a survey on AI literacies and governance, findings were organized using two analytical structures: the WCET AI Education Policy and Practice Framework and the Dimensions of AI Literacies taxonomy.

The results point to a governance landscape that is active but uneven. Institutions are building policies, forming committees, and establishing norms around responsible AI use. At the same time, many of these efforts remain fragmented, short-lived, or unclear in their lines of accountability. The tension between urgency and caution runs through the data, with leaders often opting for incremental updates rather than sustained structural change.

What this study adds to the conversation is the connection between governance activities and AI literacies development. The analysis shows that governance work is not separate from literacy development; it is a site where literacies are practiced and grown. Institutions that bring diverse voices into policy formation are developing Civic

and Cultural AI Literacies. Those that interrogate bias and risk are deepening Critical AI Literacies. Those that evaluate how AI tools function within their systems are strengthening Cognitive AI Literacies. This reciprocal relationship suggests that governance itself can be a vehicle for building institutional AI capacity, not only a mechanism for managing risk.

As the next phase of the larger study proceeds with the continuation of the survey, interviews, and direct engagement with institutional leaders, the research team anticipates that these initial findings will both inform and be refined by the perspectives of those doing the work on the ground.

Competing Interests
The authors have no competing interests to declare.

Ethics and Consent
The survey was conducted following strict ethical standards. Research ethics approval was not required for this study; however, best practices were followed for obtaining informed consent directly from participants prior to their completion of the survey, data security practices, and anonymization of the data.

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